

CAMILA EMI TOMIMATSU

**THE REGULATION OF “INNOVATION” IN
INTERNATIONAL TRADE AGREEMENTS**

Looking Inward, Outward, Backward and Forward

Doctoral Thesis

Supervisor: Associate Professor José Augusto Fontoura Costa

UNIVERSITY OF SÃO PAULO

FACULTY OF LAW

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CAMILA EMI TOMIMATSU

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Thesis submitted to the Examination Panel of the Postgraduate Programme in Law, at the Faculty of Law of the University of São Paulo, in partial fulfillment of the requirements for the degree of Doctor of Laws, in the International Law and Comparative Law area of concentration, under the supervision of the Associate Professor Dr. José Augusto Fontoura Costa.

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*“When the winds of change blow,
some people build walls and others build windmills.”*

Unknown, An ancient Chinese proverb

ABSTRACT

TOMIMATSU, Camila Emi. *The Regulation of “Innovation” in International Trade Agreements: Looking Inward, Outward, Backward and Forward*. 2023. 566 pp. Thesis (PhD in Law) – Faculty of Law, University of São Paulo, São Paulo, 2023.

This thesis aims at analyzing if and how innovation has been regulated by international trade agreements, be it multilateral, plurilateral/regional or bilateral ones. To do that, it acknowledges that “innovation” is a polysemantic term, being interpreted and applied differently depending on the area of knowledge and context. In the first part, the thesis presents in detail the results of an empirical analysis of the legal texts of the multilateral trade agreements notified to the World Trade Organization (WTO) on various issues, and then of the Regional Trade Agreements (RTAs) notified by the WTO members to the WTO RTA Database, selecting the provisions that contained the keyword “innovation” or its variations for further categorization and content analysis. For comparison purposes, a separate analysis on the keyword “technology” and its variations was also conducted, through which it was clear that “innovation” and “technology” are not being used interchangeably, though they could be related. Some of the trade agreements that are yet to be notified to the WTO were also mapped and assessed, as well as a selection of agreements that do not need to be notified to the said Organization (such as the Digital Economy Partnership Agreement – “DEPA”). As a result, it concluded that “innovation” is most often used in provisions on cooperation commitments and in the Preamble or Objectives of the agreements, and that “innovation” is not restricted to intellectual property (IP) discussions. The thesis proceeds to delve into the provisions found in the previous chapter, to assess their degree of legalization (with the indicators obligation, precision and delegation) confirming the general impression that they lean more towards a “softer” legalization. Then, a reflection on whether there is a right to innovation, to innovate and/or to innovative goods and services was presented, to better understand the rationale adopted by State actors when drafting and negotiating provisions involving innovation – concluding that there is no clear-cut right to innovation, though it could be argued that it could be related to (or derived from) an alleged right to development, and/or a right to grow through innovation. Notwithstanding that, such discussions have not directly impact how innovation has been incorporated or not in the trade agreements herein analyzed. Additional reflections were put forward on the intersections between domestic and international regulations on innovation: first, on the possible risks, benefits and opportunities of explicitly regulating “innovation” in international trade agreements. Then, going through recent domestic legislation, institutions and policies on innovation of Chile, Singapore, the UK – that have included provisions on innovation in trade agreements – and, for a counterpoint, Brazil, which has a domestic innovation system, but did not come up in the results of the first part. Finally, with a prospective view, it suggests possible improvements in the regulation through trade agreements involving innovation, as well as a reflection on whether there is a need and convenience for a multilateral agreement on innovation. It concludes that it does not seem to be the case so far, as there are neither substantive uniformity on the issue, nor a more holistic approaches on the subject at the international arena. Moreover, it verified that RTAs have been used as regulatory laboratories for a topic – innovation – that is already intrinsically fragmented by itself. It remained clear that, regardless of all the above mentioned, the existence of domestic institutions, regulation and policies on innovation is vital to support any international effort and commitments regarding innovation issues.

Keywords: international trade; international trade agreements; regional trade agreements; innovation; regulation.

RESUMO

TOMIMATSU, Camila Emi. *A regulação da “Inovação” nos Acordos de Comércio Internacional: Um olhar para Dentro, para Fora, para Trás e para Frente*. 2023. 566 f. Tese (Doutorado) - Faculdade de Direito, Universidade de São Paulo, São Paulo, 2023.

A presente pesquisa tem como objetivo analisar se e como a inovação tem sido regulada por acordos comerciais internacionais, sejam eles multilaterais, plurilaterais/regionais ou bilaterais. Para isso, reconhece que “inovação” é um termo polissemântico, sendo interpretado e aplicado de forma diferente dependendo da área do conhecimento e do contexto. Na primeira parte, a tese apresenta detalhadamente os resultados de uma análise empírica dos textos jurídicos dos acordos comerciais multilaterais notificados à Organização Mundial do Comércio (OMC) sobre diversos temas e, em seguida, dos Acordos Comerciais Regionais (ACRs, ou RTAs) notificados pelos membros da OMC ao RTA Database da OMC, selecionando as disposições que contenham a palavra-chave “inovação” ou suas variações para posterior categorização e análise de conteúdo. Para fins de comparação, também foi realizada uma análise separada da palavra-chave “tecnologia” e de suas variações, por meio da qual ficou claro que “inovação” e “tecnologia” não estão sendo usados de forma intercambiável, embora possam estar relacionados. Também foram mapeados e avaliados alguns dos acordos comerciais que ainda não foram notificados à OMC, bem como uma seleção de acordos que não precisam ser notificados à referida Organização (como o Acordo de Parceria para Economia Digital – “DEPA”). Como resultado, concluiu que o termo “inovação” é mais utilizado em disposições sobre compromissos de cooperação e no Preâmbulo ou Objetivos dos acordos, e que “inovação” não se restringe às discussões sobre propriedade intelectual (PI). A tese procede ao aprofundamento das cláusulas mapeadas no capítulo anterior, para avaliar o seu grau de legalização (com os indicadores obrigatoriedade, precisão e delegação), confirmando a impressão geral de que pendem mais para uma legalização “mais branda”. Em seguida, foi apresentada uma reflexão sobre se existe um direito à inovação, a inovar e/ou a bens e serviços inovadores, para melhor compreender a lógica adotada pelos atores estatais na elaboração e negociação de dispositivos envolvendo inovação – concluindo que não há precisamente um direito à inovação, embora se possa argumentar que poderia estar relacionado a (ou ser derivado de) um suposto direito ao desenvolvimento e/ou a um direito de crescer por meio da inovação. Não obstante, tais discussões não impactaram diretamente como a inovação foi incorporada ou não nos acordos comerciais aqui analisados. Outras reflexões foram apresentadas sobre as interseções entre as regulamentações domésticas e internacionais sobre inovação: de início, sobre os possíveis riscos, benefícios e oportunidades de regulamentar explicitamente a “inovação” em acordos comerciais internacionais. Em seguida, passando por legislações domésticas recentes, instituições e políticas de inovação do Chile, Cingapura, Reino Unido – que incluíram disposições sobre inovação em acordos comerciais – em contraponto ao Brasil, que possui um sistema de inovação nacional, mas não surgiu nos resultados da primeira parte. Por fim, com uma visão prospectiva, sugere possíveis melhorias na regulação por meio de acordos comerciais envolvendo inovação, bem como uma reflexão sobre a necessidade e conveniência de um acordo multilateral sobre inovação. Conclui que não parece ser o caso até o momento, pois não há uniformidade substantiva sobre o tema, tampouco abordagens mais holísticas sobre o tema no cenário internacional. Além disso, constatou que os RTAs têm sido utilizados como laboratórios regulatórios para um tema – inovação – que por si só já é intrinsecamente fragmentado. Ficou claro que, independentemente do quanto já exposto, a existência de instituições, regulamentações e políticas de inovação domésticas é vital para apoiar qualquer esforço e compromisso internacional em questões de inovação.

Palavras-chave: comércio internacional; acordos de comércio internacional; acordos regionais de comércio; inovação; regulação.

RESUMÉ

TOMIMATSU, Camila Emi. *La réglementation de « l'innovation » dans les accords de commerce internationaux un regard vers l'intérieur, vers l'extérieur, vers l'arrière et vers l'avant*. 2023. 566 p. Thèse (Doctorat) - Faculté de Droit, Université de São Paulo, São Paulo, 2023.

Cette thèse vise à analyser si et comment l'innovation a été réglementée par des accords commerciaux internationaux, qu'ils soient multilatéraux, plurilatéraux/régionaux ou bilatéraux. Pour ce faire, elle reconnaît que « innovation » est un terme polysémique, interprété et appliqué différemment selon le domaine de connaissance et le contexte. Dans la première partie, la thèse présente en détail les résultats d'une analyse empirique des textes juridiques des accords commerciaux multilatéraux notifiés à l'Organisation mondiale du commerce (OMC) sur diverses questions, puis des accords commerciaux régionaux (ACR) notifiés par les membres de l'OMC à la base de données sur les ACR de l'OMC, en sélectionnant les dispositions qui contenaient le mot-clé "innovation" ou ses variantes pour une catégorisation et une analyse de contenu ultérieures. À des fins de comparaison, une analyse distincte du mot-clé « technologie » et de ses variantes a également été menée, à travers laquelle il est apparu clairement que « innovation » et « technologie » ne sont pas utilisés de manière interchangeable, bien qu'ils puissent être liés. Certains accords commerciaux qui n'ont pas encore été notifiés à l'OMC ont également été cartographiés et évalués, ainsi qu'une sélection d'accords qui n'ont pas besoin d'être notifiés à ladite Organisation (comme l'accord de partenariat pour l'économie numérique - "DEPA"). Il en résulte que le terme « innovation » est le plus souvent utilisé dans les dispositions relatives aux engagements de coopération et dans le préambule ou les objectifs des accords, et que le terme « innovation » ne se limite pas aux discussions sur la propriété intellectuelle (PI). La thèse procède ensuite à l'examen approfondi des dispositions trouvées dans le chapitre précédent, pour évaluer leur degré de légalisation (avec les indicateurs d'obligation, de précision et de délégation), confirmant l'impression générale qu'elles penchent davantage vers une légalisation « plus souple ». Ensuite, une réflexion sur l'existence d'un droit à l'innovation, à innover et/ou à des biens et services innovants a été présentée, afin de mieux comprendre la logique adoptée par les acteurs étatiques lors de l'élaboration et de la négociation des dispositions impliquant l'innovation – concluant qu'il n'existe pas de droit clairement défini à l'innovation, bien que l'on puisse argumenter qu'il pourrait être lié à (ou dérivé de) un prétendu droit au développement et/ou un droit à la croissance par l'innovation. Néanmoins, de telles discussions n'ont pas eu d'impact direct sur la manière dont l'innovation a été intégrée ou non dans les accords commerciaux analysés ici. Des réflexions supplémentaires ont été avancées sur les intersections entre les réglementations nationales et internationales sur l'innovation : premièrement, sur les risques, avantages et opportunités possibles d'une réglementation explicite de « l'innovation » dans les accords commerciaux internationaux. Ensuite, en passant en revue la législation, les institutions et les politiques nationales récentes en matière d'innovation du Chili, de Singapour, du Royaume-Uni – qui ont inclus des dispositions sur l'innovation dans les accords commerciaux – et, en contrepoint, du Brésil, qui dispose d'un système national d'innovation, mais qui n'a pas été inclus dans les résultats de la première partie. Enfin, avec une perspective prospective, la recherche suggère des améliorations possibles de la réglementation par le biais d'accords commerciaux impliquant l'innovation, ainsi qu'une réflexion sur la nécessité et la convenance d'un accord multilatéral sur l'innovation. Elle conclut qu'il ne semble pas que cela soit le cas jusqu'à présent, car il n'y a ni uniformité substantielle sur la question, ni approches plus holistiques sur le sujet dans l'arène internationale. De plus, elle a vérifié que les ACR ont servi de laboratoires réglementaires pour un sujet – l'innovation – qui est déjà intrinsèquement fragmenté en lui-même. Il est resté clair que, indépendamment de tout ce qui précède, l'existence d'institutions, de réglementations et de politiques nationales sur l'innovation est essentielle pour soutenir tout effort et engagement international concernant les questions d'innovation.

Mots-clés: commerce international; accords de commerce internationaux; accords de commerce régionaux; innovation; régulation.

LIST OF ABBREVIATIONS

ACN	Active Citizenship Network
AFTA	ASEAN Free Trade Area
AI	Artificial intelligence
ANVISA	Brazilian Health Regulatory Agency (<i>Agência Nacional de Vigilância Sanitária</i>)
APTA	Asia Pacific Trade Agreement
ASCM	Agreement on Subsidies and Countervailing Measures
ASEAN	Association of Southeast Asian Nations
A-UKFTA	Australia-United Kingdom Free Trade Agreement
CAFTA-DR	Dominican Republic – Central America – United States Free Trade Agreement
CAN	<i>Comunidad Andina</i> , or Andean Community
CARICOM	Caribbean Community and Common Market
CARIFORUM	The Caribbean Forum
CBD	Convention on Biological Diversity
COMESA	Common Market for Eastern and Southern Africa
CPTPP	Comprehensive and Progressive Trans-Pacific Partnership
CRTA	Committee on Regional Trade Agreements
CTCI	<i>Ciencia, Tecnología, Conocimiento e Innovación</i> (Science, Technology, Knowledge and Innovation)
CU	Customs Union
DEPA	Digital Economy Partnership Agreement
DTA	Deep Trade Agreement
EAC	East African Community
EAEU	Eurasian Economic Union
ECOWAS	Economic Community of West African States
ECPR	European Charter of Patients' Rights
EFTA	European Free Trade Association
EIA	Economic Integration Agreement
EMC	Electromagnetic Compatibility
EU	European Union

FTA	Free Trade Agreement
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GEARE	ANVISA's <i>Gerência de Avaliação de Risco e Eficácia</i>
GGALI	ANVISA's <i>Gerência Geral de Alimentos</i>
GII	Global Innovation Index
GMC	MERCOSUR's Common Market Group (<i>Grupo Mercado Comum</i>)
GNI	Gross National Income
GPA	Agreement on Government Procurement
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICT	Information and Communication Technology
ICTSD	International Centre for Trade and Sustainable Development
ILA	International Law Association
IP	Intellectual Property
I&E	Innovation and Enterprise
KSDPA	Korea-Singapore Digital Economy Agreement
LAIA	Latin America Integration Association
LDC	Least-developed countries
MERCOSUR	Southern Common Market
MFN	Most-Favored-Nation
OCT	Overseas Countries and Territories
OECD	Organisation for Economic Cooperation and Development
OHCHR	Office of the United Nations High Commissioner for Human Rights
PAFTA	Pan-Arab Free Trade Area
PATCRA	Agreement on Trade and Commercial Relations between the government of Australia and the government of Papua New Guinea
PRI	Public Research Institutions
PSA	Partial Scope Agreement
PTA	Preferential Trade Agreement
RCEP	Regional Comprehensive Economic Partnership Agreement

RDC	<i>Resolução da Diretoria Colegiada da ANVISA</i> (ANVISA's Collegiate Directory Resolution)
REBSP	Right to enjoy the benefits of scientific progress
RGTI	Right to grow through innovation
RIE	Research, Innovation and Enterprise
RTA	Regional Trade Agreement
R&D	Research and Development
SACU	Southern African Customs Union
SADC	Southern African Development Community
SAFTA	South Asian Free Trade Agreement
SDGs	Sustainable Development Goals
SISCOMEX	Brazilian Integrated System of Foreign Trade (<i>Sistema Integrado de Comércio Exterior do Brasil</i>)
SMEs	Small and Medium-sized enterprises
SPARTECA	South Pacific Regional Trade and Economic Cooperation Agreement
SPS	Sanitary and Phytosanitary Measures
TBT	Technical Barriers to Trade
TRIMS	Trade-Related Investment Measures
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
TTIP	Transatlantic Trade and Investment Partnership
UDHR	United Nations Universal Declaration of Human Rights of 1948
UK	United Kingdom
UKSDEA	United Kingdom-Singapore Digital Economy Agreement
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNGA	United Nations General Assembly
US	United States
USD	United States Dollar
USMCA	United States-Mexico-Canada Agreement
VCLT	Vienna Convention on the Law of Treaties
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

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INTRODUCTION

The relationship and interplay between trade and innovation is a complex one. There is no single law that can guarantee innovation, or the access to innovative goods or services; it requires a web of cultural, political, economic, and legal structures and attitudes. The impact of trade on innovation can be assessed from at least three perspectives: first, open up the markets, and the forces of competition will encourage increasing productivity and better products. The stronger the competition, not just against domestic producers, but also producers from other countries, the more innovation one can expect. Secondly, secure access to export markets will create its own incentives for innovation and technological progress. Thirdly, trade creates its own imperatives for innovation independently of its competitive benefits.¹

The freedom to trade could be seen as a necessary though not a sufficient condition for innovation. It is therefore not surprising that, as barriers to trade fall and as goods move more freely between markets, intellectual property becomes an increasingly integral part of international trade law.²

The protection of intellectual property rights is deemed at times as a tool for the promotion of innovation, in various degrees of intensity. However, it is also increasingly deemed as only *one of various other tools* for that end.

International trade agreements – either multilateral, plurilateral or bilateral – are one of the avenues that could be used by the States to promote and push for a variety of Governmental and/or State policies. The multilateral system has provided the forum to collectively advance on numerous issues in which the parties were like-minded. Nevertheless, whenever there are issues and aspirations that are not being pushed forward in the multilateral forum, there are other means that have been explored to expand those issues and aspirations – being the plurilateral, regional and/or bilateral trade agreements some of those. Contents of such agreements have also expanded from merely removing tariffs to covering other areas even outside the General Agreement on Tariffs and Trade (GATT)/WTO framework, to even encompass WTO-plus and WTO-extra commitments.

In this context, as will be detailed throughout the present thesis, “innovation” has come up in some of the trade agreements herein analyzed in different ways, with different approaches

¹ BEHBOODI, Rambod. International Trade Law and Innovation, pp. 1-3. Available at: <<https://old.leginet.eu/articles/International%20Trade%20Law%20and%20Innovation.pdf>>. Accessed: 29 apr. 2023.

² Id., p. 5.

and in various degrees of depth. Notwithstanding that, almost all the trade agreements analyzed do not define the term “innovation” (in fact, only one trade agreement amongst the ones herein analyzed has expressly defined that term).

Such fact could lead to questions on the limits of the term “innovation”, its interpretation and application, considering that, according to article 31 of the Vienna Convention on the Law of Treaties (VCLT), “*a treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose*” – and it is not an easy task to apprehend if there is necessarily such context related to innovation in all agreements.

In such scenario, the present thesis will delve into the legal text of the trade agreements that have been notified by their parties to the World Trade Organization (WTO) – specially the Regional Trade Agreements (RTAs) –, as well as of other trade agreements that have not yet been notified (and that are already public), and even of some agreements that do not need to be notified to the WTO, so as to understand how those agreements have been using and interpreting the term “innovation”, and which areas and actions it entails.

For instance, is it necessarily related to the protection of intellectual property (IP) rights? Which other areas of action does it entail? Are there common grounds between the understanding and the approaches adopted by the different parties, to the point of justifying the initiation of discussions on a plurilateral or multilateral trade agreement on “innovation”? Are those agreements “*laboratories for innovation or propellers of fragmentation*”, as questioned by LEWIS (2022)³? Which countries and/or blocs are pushing for more specific provisions on innovation, and how? Is “innovation” being regulated as a legal category in itself, or even a legal right by the agreements, or is it not the case? Those are some of the questions that will be addressed in the present thesis, to attempt to extract some possible ways forward on the regulation of innovation.

Due to the broadness, breadth, and complexity of the issue of “innovation”, it is also crucial to clarify at the outset what this thesis *does not* strive to do.

First, it does not intend to carry out an economic analysis on the impact of trade agreements on the development of innovation in the countries herein analyzed, nor a political assessment on the issue - perspectives that, in the author's view, would escape the scope of an eminently legal thesis. Nevertheless, elements and tools of economic and political analysis were tentatively applied in the development of this work, considering that its object – trade

³ LEWIS, Meredith Kolsky. International Trade Agreements: Laboratories of Innovation or Propellers of Fragmentation in *Journal of International Economic Law*, v. 25, n. 3, Oxford University Press, pp. 455-481, 2022.

agreements – are not in a vacuum, being inserted in different economic, political and social realities.

Another important clarification is that the present thesis does not intend to focus its analysis on issues of intellectual property rights either. Although the discussion on innovation could be seen as closely related to issues such as the number of new patent applications and the legal protection of intellectual property rights, this research will implement a more comprehensive approach, consistent with the broader understanding of “innovation” herein envisaged that goes beyond the intellectual property realm.

It should also be noted that the present thesis is limited to the realm of trade agreements and has not ventured into analyzing investment agreements. It does not mean that investment agreements do not tackle the issue of “innovation” in their legal texts. It is simply derived from a methodological choice of the author. Notwithstanding that, it is noteworthy that many of the trade agreements herein analyzed do contain chapters and provisions on investment issues, which to some extent could provide a view (even if limited) on a possible interface between “innovation” and investment.

Furthermore, this thesis will not delve into the discussions on Joseph Schumpeter’s distinctions of the types of innovations, his representation of innovation as a form of “creative destruction” and his view on innovation and entrepreneurship. Despite bringing a fascinating outlook on the issue, it could be the subject of a thesis by itself, which is not the focus herein intended.

To accomplish this thesis’ objectives, the study is divided into three main Parts.

Part I aims at laying the conceptual and thematic groundwork for the entire thesis, as it will present various possible definitions and understandings of “innovation” from the perspective of different areas of knowledge, to give an idea of the complexity and multidisciplinary nature of the subject.

Part II will then present the results of an empirical analysis of the international trade agreements that were notified by the WTO members to the WTO RTA Database so far, looking into the agreements that used the keywords “innovation” (and its variations) or “technology” (and its variations) in their legal texts. The objective is to ascertain how often those terms are being used, in which contexts, by which parties and how such use evolved throughout time, in an attempt to verify whether there are common grounds and trends between the different agreements concerning the regulation of innovation in those instruments. For a more thorough assessment, Part II will also tackle a few trade agreements that are yet to be notified to the

WTO, as well as other agreements that will not even need to be notified to the Organization (as they do not regulate the trade of goods or services).

Part III, in turn, will present critical insights on the data and the information presented in the previous chapters, using analytical frameworks and inputs from various sources and authors. The execution will be two-fold: first, looking “*backward and inward*” – in other words, focused on the analysis of the degrees of legalization of the provisions themselves from the trade agreements in question, as well as on deeper reflections from the point of view of the States so as to gather a better grasp of the rationale, the objectives, concerns and opportunities that could be envisaged in regulating innovation through trade agreements, even going through a discussion of whether there is a right to innovation, and how some States have regulated innovation domestically. Secondly, looking “*outward and forward*”, meaning that it will offer a prospective view on the regulation of innovation through those agreements, searching for possible ways forward.

Finally, a **Conclusion** will follow, highlighting the main outcomes of the analysis of such a complex subject. Overall, there are no right or wrong answers regarding the issues that will be herein addressed, and neither there is a more holistic approach to the issue of innovation under international trade law. Though there are in fact widely differing views even on the definition of innovation itself, as will be detailed, there are some common grounds in the way “innovation” has been incorporated in the trade agreements analyzed that seem to position it as something that could benefit the States through a collective and collaborative effort – thus, for instance, the significant recurrence in provisions on cooperation efforts.

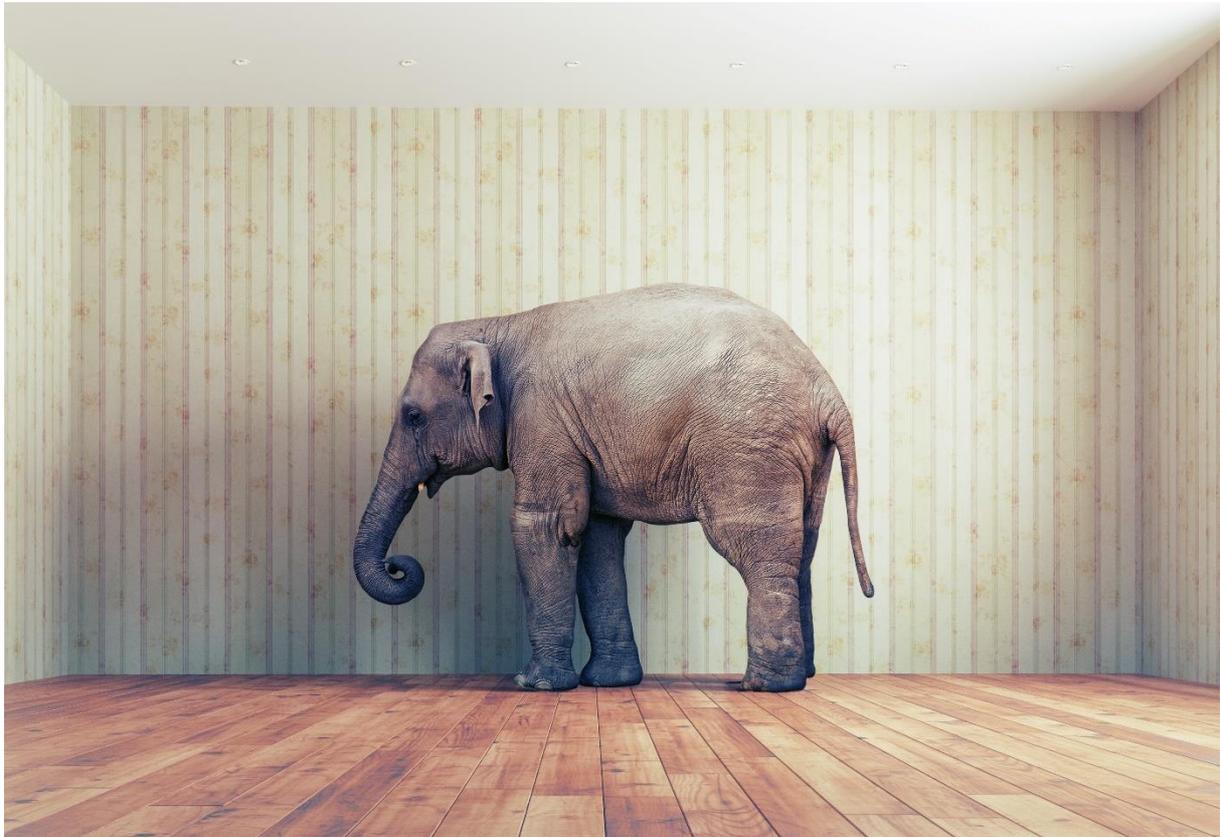
Ultimately, this thesis hopes to provide inputs not only for those interested in studies on innovation and its interface with law, but also to policy makers that may be faced at some point with the challenge of regulating innovation, especially in an international setting.

On a hopeful note, it could also provide ideas for representatives from the private sector to further some discussions on innovation with trade policy authorities, which can indeed have concrete repercussions on business activities and on global value chains. In fact, the reflections developed in the present thesis were initially motivated by a real-life case, in which an outdated norm (derived from/related to a trade agreement) ended up constituting a barrier to the launch and commercialization of an innovative good in the Brazilian market, as will be further detailed in **Part III.1** of this thesis. Hence, even though the subject of this thesis seems *a priori* more State-oriented, it is cognizant of the concrete repercussions that the regulation of innovation may have to improve social welfare, to spur productivity and to address local and global challenges.

PART I: LAYING THE GROUNDWORK

The Blind Men and the Elephant
John Godfrey Saxe (1816-87)

“So oft in theologic wars,
The disputants, I ween,
Rail on in utter ignorance
Of what each others mean,
And prate about an Elephant
Not one of them has seen!”⁴



Credit: iStock.com/vient

⁴ This excerpt of the poem by SAXE was cited in the Preface of the following book: FAGERBERG, Jan (ed.); MOWERY, David C. (ed.); NELSON, Richard R. (ed.). *The Oxford Handbook of Innovation*. Oxford University Press, p. v, 2004. In the poem, SAXE lets one of the blind men approach the elephant's side, and that man finds it to be "very like a wall". In turn, another man fits around its legs and reckons it resembles a tree. The point is that each "disputant" has a valid insight but needs to combine it with the insights of others to reach a holistic understanding.

PART I: LAYING THE GROUNDWORK

1 ON THE DEFINITION(S) OF “INNOVATION”

1.1 What is “innovation”?

“Innovation” is one of those broad terms that everyone seems to know what it means and what it entails, while each person defines it and understands it differently. That holds true even amongst States and international organizations, which is evident by the way each of them views and regulates the subject.

According to the Oxford Dictionary, “innovation” could either mean “*the introduction of new things, ideas, or ways of doing something*” (when it is an uncountable noun), or “*a new idea, way of doing something, etc. that has been introduced or discovered*” (when it is a countable noun).⁵ The Cambridge Dictionary, in turn, defines it as “*(the use of) a new idea or method*”, or “*a new idea, design, product, etc.*”, or, when uncountable, “*the development of new products, designs, or ideas*”.⁶

The term itself comes from the Late Latin *innovationem* (nominative *innovatio*), noun of action from past-participle stem of *innovare* “to change; to renew,” from in- “into” + *novus* “new”. The meaning “*a novel change, experimental variation, new thing introduced in an established arrangement*” dates from 1540s.⁷

In 1934, the economist Joseph Schumpeter defined “innovation” as “new combinations” of new or existing knowledge, resources, equipment, and other factors. He distinguished it from “invention”: while he viewed innovation as a specific social activity, or “function,” carried out within the economic sphere and with a commercial purpose, inventions in principle could be carried out everywhere and without any intent of commercialization.⁸

Since then, the term has continued to be the subject of various definitions, interpretations, and applications in a myriad of areas and sectors. For instance, in the management and entrepreneurship field, Peter Drucker defined “innovation” in his 1985 book “Innovation and Entrepreneurship” as “*the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or a different service. It is capable*

⁵ Cf. <https://www.oxfordlearnersdictionaries.com/definition/american_english/innovation>. Accessed: 29 apr. 2023.

⁶ Cf. <<https://dictionary.cambridge.org/dictionary/english/innovation>>. Accessed: 29 apr. 2023.

⁷ Cf. <<https://www.etymonline.com/word/innovation>>. Accessed: 29 apr. 2023.

⁸ P. 3. Available at: <<https://scitechconnect.elsevier.com/wp-content/uploads/2015/02/Chapter-1.pdf>>. Accessed: 29 apr. 2023.

of being presented as a discipline, capable of being learned, capable of being practiced.” Thus, he viewed “innovation” as a structured process that requires discipline, proactivity, which begins with a new idea and concludes with market introduction.⁹

Many authors perceive innovation as an engine of growth.¹⁰ There are also those who understand that it encompasses “*a range of types, including new product or service, new process technology, new organization structure or administrative systems, or new plans or program pertaining to organization members*”.¹¹ There are others who define it as the “*creation of new knowledge and ideas to facilitate new business outcomes*”.¹²

Another approach to innovation views it as something uncertain, cumulative and collective. By uncertain, it means that “*agents concerned with innovation cannot calculate in advance the odds of success or failure – that is, results are unknown – and therefore in order to succeed will have also to accept occasional failures and detours from planned routes*”. The cumulative aspect stems from the fact that “*agents need to be patient and act strategically to accumulate competences and capabilities (learn) with a view to the long run*”. And the collective feature means that “*agents need to work together and thus bear certain degrees of risk; they are therefore entitled to also share the rewards*”.¹³

Furthermore, there are those who view innovation as either “radical” or “incremental”. Small and piecemeal adjustments made to existing practices, processes, and products would fall under the umbrella of incrementalism, whereas the more radical approach would lean towards the Schumpeterian notion of creative destruction.¹⁴

⁹ Id, p. 4.

¹⁰ ZAHRA, Shaker A.; COVIN, Jeffrey G. The financial implications of fit between competitive strategy and innovation types and sources in *The Journal of High Technology Management Research*, v. 5, n. 2, pp. 183–211, 1994.

¹¹ DAMANPOUR, Fariborz; GOPALAKRISHNAN, Shanthi. Theories of organizational structure and innovation adoption: the role of environmental change in *Journal of Engineering and Technology Management*, v. 15, n. 1, p. 1–24, 1998. Available at: <https://www.academia.edu/1326239/Theories_of_organizational_structure_and_innovation_adoption_the_role_of_environmental_change>. Accessed: 29 apr. 2023.

¹² PLESSIS, Marina du. The role of knowledge management in innovation in *Journal of Knowledge Management*, v. 11, n. 4, pp. 20–29, 2007.

¹³ MAZZUCATO, Mariana; PENNA, Caetano. The Brazilian Innovation System: A Mission-Oriented Policy Proposal. *Avaliação de Programas em CT&I. Apoio ao Programa Nacional de Ciência (Plataformas de conhecimento)*. Brasília, DF: Centro de Gestão e Estudos Estratégicos, 2016 p. 7. Available at: <https://www.cgee.org.br/documents/10195/1774546/The_Brazilian_Innovation_System-CGEE-MazzucatoandPenna-FullReport.pdf>. Accessed: 29 apr. 2023.

¹⁴ KNUDSEN, Jon P. Creative Continuation: Na Alternative Perspective on Innovation and Society. In: Örtenblad, Anders; REHN, Alf. *Debating Innovation: Perspectives and Paradoxes of an Idealized Concept*. Palgrave Macmillan, pp. 58-59, 2023.

The Oslo Manual (2018)¹⁵ – developed by the European Communities and the Organisation for Economic Cooperation and Development (OECD), as a reference guide for collecting and using data on innovation –, states that the term “innovation” can signify both an activity and the outcome of the activity, and provides a general definition of the term as “*a new or improved product or process (or combination thereof) that differs significantly from the unit’s previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process)*”.

Even though the said Manual acknowledges that the concept of innovation is “*inherently subjective*”, it argues that innovation can and should be measured, and that its application is rendered “*fairly objective and comparable by applying common reference points for novelty and utility, requiring a significant difference to be appreciated*”. It then proceeds to define and differentiate “*innovation activities*” from “*business innovation*”, as well as “*product innovation*” and “*business process innovation*”:¹⁶

“**Innovation activities** include all developmental, financial and commercial activities undertaken by a firm that are intended to result in an innovation for the firm.

A **business innovation** is a new or improved product or business process (or combination thereof) that differs significantly from the firm's previous products or business processes and that has been introduced on the market or brought into use by the firm.

(...)

A **product innovation** is a new or improved good or service that differs significantly from the firm’s previous goods or services and that has been introduced on the market.

A **business process innovation** is a new or improved business process for one or more business functions that differs significantly from the firm’s previous business processes and that has been brought into use by the firm.”

The World Intellectual Property Organization (WIPO), in turn, has indicated in its Global Innovation Index Report (“GII”) (2022) (in the Appendix I)¹⁷ that innovation goes beyond than activities conducted in research and development laboratories:

“(...) the definition of innovation has broadened – it is no longer restricted to research and development (R&D) laboratories and published scientific papers. The concept of innovation has become more general and horizontal in nature, and now includes social, business model and technical aspects.”

¹⁵ OECD/Eurostat. Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation, 4th Edition, The Measurement of Scientific, Technological and Innovation Activities. OECD Publishing, Paris/Eurostat, Luxembourg, 2018. Available at: <https://doi.org/10.1787/9789264304604-en>. Accessed: 29 apr. 2023.

¹⁶ P. 20. Available at: <<https://www.oecd-ilibrary.org/docserver/9789264304604-en.pdf?expires=1676370324&id=id&accname=ocid57015174&checksum=D752A35705FD14E0AE1868FF386AE818>>. Accessed: 29 apr. 2023.

¹⁷ P. 225. Available at: <<https://www.wipo.int/edocs/pubdocs/en/wipo-pub-2000-2022-appendix1-en-appendix-i-global-innovation-index-2022-15th-edition.pdf>>.

In this sense, the said Report noted that there has been an evolution in the way in which innovation has been perceived and understood over the past two decades: previously, economists and policymakers focused on R&D-based technological product innovation, largely produced in-house and mainly in manufacturing industries, being technological breakthroughs necessarily “radical”, taking place at the “global network frontier” (meaning that there were leading and lagging economies). Today, the Report interestingly states that:¹⁸

“(…) innovation capability is increasingly seen as the ability to exploit new technological combinations; it embraces the concept of incremental innovation and “innovation without research.” Non-R&D innovative expenditure is an important component of reaping the rewards of technological innovation. Interest in understanding how innovation evolves in low- and middle- income economies is increasing, along with an awareness that incremental forms of innovation can impact development. Furthermore, the process of innovation itself has changed significantly. Investment in innovation-related activity and intangible assets has intensified consistently at the firm, economy and global levels, adding both new innovation actors from outside high-income economies and non-profit actors. The structure of knowledge production activity is more complex and geographically dispersed than ever.”

It is worth mentioning that there are also those who perceive innovation as an ecosystem (or as part of an ecosystem). An innovation ecosystem evolves “*as networks of sustainable linkages between individuals and organizations, which emerge from a shared vision of desired transformation and provide an economic context to catalyze innovation and growth*”¹⁹. According to this definition, innovation ecosystems are oriented towards the co-creation of innovation, which is then possible if the context is favorable to its development. Innovation ecosystems are places of co-creation of value²⁰ involving a wide variety of actors. It is likened to a network of interconnected organizations. The network creates a context conducive to innovation.²¹

Interestingly enough, some countries have included in their domestic legislation their own definitions of “innovation”. Brazil, for instance, has enacted Law n. 10.973 of December 2nd, 2004 (known in Brazil as the “Innovation Law”), which defines “innovation” in its article 2, IV. In the original version of this article, it was defined as “*the introduction of novelty or improvement in productive or social environment that results in new products, processes or*

¹⁸ Id., p. 226. Accessed: 29 apr. 2023.

¹⁹ RUSSELL, Martha G.; HUHTAMAKI, Jukka; STILL, Kaisa et al. Relational capital for shared vision in innovation ecosystems in *Triple Helix*, v. 2, n. 1, pp. 1–36, 2015. Available at: <file:///C:/Users/55119/Downloads/s40604-015-0017-2.pdf>.

²⁰ ADNER, Ron. Ecosystem as Structure: An Actionable Construct for Strategy in *Journal of Management*, v. 43, n. 1, p. 39–58, 2017. Available at: <https://journals.sagepub.com/doi/full/10.1177/0149206316678451>. Accessed: 29 apr. 2023.

²¹ JULIEN, Odile de Saint. *The Innovation Ecosystem as a Source of Value Creation: A Value Creation Lever for Open Innovation*. ISTE Ltd. and John Wiley & Sons, Inc., item 1.3.3, 2022.

services” (free translation); however, in 2016, the definition was changed to the following version: “*introduction of novelty or improvement in the productive and social environment that results in new products, services or processes or that includes the addition of new functionalities or characteristics to an existing product, service or process that may result in improvements and an effective gain in quality or performance*” (free translation).²²

Regardless of the particularities, depth and breadth of each definition, there seems to be a common understanding that:

“Innovations result from a complex, interactive, and interdependent process involving multiple actors and influences within dynamic systems, rather than arising exclusively from the internal research and development activities of commercial enterprises”.²³

Turning to the object of the present research and thesis – international trade law agreements, whether multilateral, plurilateral, regional or bilateral –, the term “innovation” has not been defined in almost all of such agreements, even in those that expressly mention and/or regulate it. That could be so due to the broadness of the term, and/or to the fact that the negotiators of those agreements did not feel the need to press for a definition of the term “innovation” considering that such term is often used in chapters and/or articles with a “soft law” language, with no enforcement concerns attached (as will be seen in **section 1.1 of Part III.1** below).

As a matter of fact, only one trade agreement amongst the ones herein analyzed has presented a definition of the term “innovation” in its text – the Australia–United Kingdom Free Trade Agreement (A-UKFTA), signed in 2021 but that is yet to enter into force, in the following terms – implying that it views it as an action rather than a product:

“Chapter 20 – Innovation

Article 20.1 Definitions

For the purposes of this Chapter:

“innovation” means the development or implementation of a new or improved product, process, or organisational method, or combination thereof.”

The intent of this thesis is not to delve into or to debate the numerous definitions, interpretations and applications of the term “innovation”. Only for greater clarity, for the purposes of the present thesis, “innovation” will be hereby understood as the result of the

²² BRASIL. Lei n. 10.973 de 2004. Dispõe sobre incentivos à inovação e à pesquisa científica e tecnológica no ambiente produtivo e dá outras providências, Brasília, dec. 2004. Available at: <https://www.planalto.gov.br/ccivil_03/_ato2004-2006/2004/lei/110.973.htm>. Accessed: 29 apr. 2023.

²³ PELLIKKA, Jarkko; ALI-VEHMAS, Timo. Managing innovation ecosystems to create and capture value in ICT industries. Technology Innovation Management Review, Ottawa, v. 6, n. 10, pp. 17–24, 2016. Available at: <https://timreview.ca/sites/default/files/article_PDF/PellikkaAli-Vehmas_TIMReview_October2016.pdf>. Accessed: 29 apr. 2023.

application of knowledge resulting in new business opportunities, regardless of whether these are the result of innovations in technology through innovations in process, product or service or innovations in business models and business processes.

PART II: OVERALL PICTURE. HOW INTERNATIONAL TRADE AGREEMENTS CURRENTLY REGULATE “INNOVATION”

Untangling the ‘Spaghetti bowl’



Credit: iStock.com/amaze646

PART II: OVERALL PICTURE. HOW INTERNATIONAL TRADE AGREEMENTS CURRENTLY REGULATE “INNOVATION”

It is clear by now that “innovation” is in theory a multifaceted and multidimensional term, with miscellaneous possible concrete applications. Regulating such a malleable concept could be remarkably challenging.

With a view of grasping how international trade agreements have dealt with the issue so far to establish the object of analysis of this thesis, Part II will go through the legal texts of both multilateral and plurilateral or bilateral trade agreements, extracting general patterns and commonalities from those agreements. For reference purposes and to enable a smoother reading experience, the integral transcription of the selected provisions from the trade agreements that will be mentioned throughout this Chapter can be found in Annex B of this thesis.

1 MULTILATERAL TRADE AGREEMENTS

First of all, there are no multilateral trade agreements thus far dedicated specifically to the issue of “innovation”, be it in the realm of the WTO agreements or beyond that. That could be so due to the broadness and complexity of the subject, and/or because, as suggested in the paper *“Trade and Innovation: Policy Options for a New Innovation Landscape”*²⁴ (2016) by the E15 Expert Group on Trade and Innovation – which was co-convened by the ICTSD (International Centre for Trade and Sustainable Development) and The Evian Group@IMD in partnership with the World Economic Forum –, *“these agreements are often perceived to be suboptimal in terms of generating significant incentives for innovation”*.²⁵

As a matter of fact, only one of the WTO agreements (either multilateral or plurilateral ones) expressly contains the term “innovation” – namely, the Agreement on Trade-Related Aspects of Intellectual Property Rights (known as the “TRIPS Agreement”). Its article 7, dedicated to the “Objectives” of the Agreement, states the following:

“Article 7
Objectives
The protection and enforcement of intellectual property rights should contribute to the promotion of technological **innovation** and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological

²⁴ CURTIS, John M. Trade and Innovation: Policy Options for a New Innovation Landscape. E15 Expert Group on Trade and Innovation – Policy Options Paper. E15 Initiative. Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum, 2016. Available at: <http://e15initiative.org/wp-content/uploads/2015/09/E15_ICTSD_Trade_Innovation_report_2016_1002.pdf>. Accessed: 29 apr. 2023.

²⁵ Id., p. 8.

knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.”

That could be an indication that the WTO Members see a direct interplay between the intellectual property system and innovation, as article 7 of the TRIPS “*recognizes the significance of the IP system for innovation*”, as set forth in the WTO website (in its section on “*Innovation policy and the TRIPS Agreement*”).²⁶ More specifically, the TRIPS mentions “*technological innovation*” – which could suggest that the Agreement’s understanding of the term “innovation” is not all-encompassing. The limits of such term in the context of the TRIPS, however, remain imprecise as the term itself was not defined in the said Agreement.

Still on article 7 of the TRIPS, it is worth noting that it does not contain a norm which imposes a concrete positive or negative obligation on the parties – thus serving as a prime source of interpretation of the treaty.²⁷ As stated by GERVAIS (2003), this provision “*could be invoked to limit an obligation to protect or enforce a given intellectual property where no promotion of intellectual innovation and/or transfer or dissemination of technology can be proved.*”²⁸

Though there is no overarching WTO Agreement specifically on innovation, there are Agreements that could influence innovation and innovation activities in different aspects. In this sense, the E15 Expert Group on Trade and Innovation, in the abovementioned paper “*Trade and Innovation: Policy Options for a New Innovation Landscape*”²⁹ (2016), has reflected upon the issue of “*whether the existing set of WTO rules and disciplines optimally enable or limit today’s global drive to promote innovation*”. It identified a variety of agreements that influence innovation activities “*such as those on subsidies, intellectual property, services, and technical barriers to trade*”,³⁰ and it highlighted a number of policies and measures that are commonly pursued by governments to promote innovation – so as to illustrate its point that innovation-related policies and measures span a wide range of WTO rules and disciplines, as the aforementioned paper put forward in the table below:

²⁶ Cf. <https://www.wto.org/english/tratop_e/trips_e/innovationpolicytrips_e.htm>. Accessed: 29 apr. 2023.

²⁷ CURZEL, Renata. TRIPS and access to medicines. Pharmaceutical Patents and the Experience of Brazil. Kluwer Law International B.V., 2021, P. 73.

²⁸ GERVAIS, Daniel J. The TRIPS Agreement: Drafting History and Analysis. 2nd ed., London: Sweet & Maxwell, p. 116, 2003.

²⁹ Available at: <<https://e15initiative.org/publications/trade-innovation-policy-options-new-innovation-landscape/>>. Accessed: 29 apr. 2023.

³⁰ Id., p. 11.

Table 1: Innovation-Related Domestic Policies and WTO Agreements³¹

Innovation-Related Policies and Measures	Relevant WTO Agreements
Domestic R&D support and incentives (e.g. subsidies)	ASCM; Agreement on Agriculture
Protection and enforcement of intellectual property rights	TRIPS
Commercialization of publicly funded research	TRIPS
Transfer of technology and know-how	GATS; TRIMs; TRIPS
Government procurement	GATT; TRIMs; GPA
Technical Standards	GATT; TBT; SPS
Competition policy	TRIPS; TRIMs
Policy/regulatory frameworks and general infrastructure	Aid for Trade

Source: Trade and Innovation: Policy Options for a New Innovation Landscape, p. 11.

The said paper argues that, as a result, “*the WTO lacks a holistic approach to this pressing contemporary policy challenge*”. It pondered, nevertheless, that “*the current trade architecture was largely designed before the Internet revolution and the dramatic expansion of the digital environment*”, and that “*these recent developments have already spurred a massive surge of innovative activity that has had spillover effects on many sectors of domestic economies and global markets.*” In light of that, it argued for the need of an update in the multilateral trading system so as to be relevant, to stimulate innovation and development.

2 REGIONAL, PLURILATERAL AND/OR BILATERAL TRADE AGREEMENTS

The global trading system is comprised of an inter-locking, ever-growing network of bilateral, plurilateral (regional/preferential) and multilateral trade agreements – often referred to as resembling a ‘spaghetti bowl’³². Such agreements pursue the common goal of trade promotion through trade liberalization – being such pursuit done in different and often conflicting ways.³³

Particularly concerning regional or preferential trade agreements (“RTAs” or “PTAs”), such agreements fall under the ‘regional integration exceptions’ provided for under WTO law

³¹ The WTO Agreements cited in the table correspond to: ASCM (Agreement on Subsidies and Countervailing Measures); TRIPS (Trade-Related Aspects of Intellectual Property Rights); GATS (General Agreement on Trade in Services); GATT (General Agreement on Tariffs and Trade); TRIMs (Trade- Related Investment Measures); GPA (Government Procurement Agreement); TBT (Agreement on Technical Barriers to Trade); SPS (Agreement on the Application of Sanitary and Phytosanitary Measures).

³² The term was initially used by Jagdish Bhagwati, “US Trade Policy: The Infatuation with Free Trade Agreements” in J Bhagwati and A Krueger, *The Dangerous Drift to Preferential Trade Agreements* (Washington, DC: AEI Press, 1995).

³³ LOCKHART, Nicolas J.S., MITCHELL, Andrew D. Legal Requirements for PTAs under the WTO *in* BARTELS, Lorand, LESTER, Simon, MERCURIO, Bryan (Eds.). *Bilateral and Regional Trade Agreements: Commentary and Analysis* (Bilateral and Regional Trade Agreements, pp. 81-114). Cambridge: Cambridge University Press, 2016, p. 81.

– which allow Members to adopt measures, otherwise WTO-inconsistent, taken in the context of the pursuit of regional economic integration. Since the early 1990s, there has been a proliferation specially of regional trade agreements, to the point that a significant part of world trade takes place under the terms of regional trade agreements.³⁴

One key feature of such agreements is the fact that their parties offer each other more favorable treatment in trade matters than they offer other trading partners. Though such discriminatory treatment is in theory inconsistent with the MFN (most-favored-nation) treatment obligation³⁵, both the GATT 1994 and the GATS allow, under certain conditions, regional trade agreements establishing customs unions or free trade areas, as WTO law recognizes the advantages of economic integration and trade liberalization even when these efforts involve only some of its Members.³⁶

On a separate note, just for clarification on the nomenclature, in the international economics and law literature, “PTA” is an umbrella term encompassing several types of reciprocal agreements between trading partners: regional trade agreements (RTAs), free trade agreements (FTAs), and customs unions (CUs). This definition differs from that of the WTO, which defines PTAs as agreements that grant unilateral (i.e., non-reciprocal) trade preferences such as the Generalized System of Preferences schemes, under which developed countries grant preferential tariffs to imports from developing countries.³⁷ For the purposes of the present thesis, the definition of RTA that will be adopted will be the one from the WTO.

As pointed out by BURRY (2022), *“it appears that PTAs have indeed worked as regulatory laboratories — not only in terms of mapping the relevant issues but also in terms of*

³⁴ BOSSCHE, Peter Van den. *The Law and Policy of the World Trade Organization: Text, Cases and Materials*. Cambridge: Cambridge University Press, p. 650, 2005.

³⁵ The most-favored-nation (MFN) treatment is set forth in the first article of the GATT, which governs trade in goods, and it determines that countries cannot normally discriminate between their trading partners. MFN is also a priority in the GATS (article 2) and the TRIPS (article 4). As seen, some exceptions are allowed – for example, countries can set up a free trade agreement that applies only to goods traded within the group — discriminating against goods from outside. Or they can give developing countries special access to their markets. Or a country can raise barriers against products that are considered to be traded unfairly from specific countries. And in services, countries are allowed, in limited circumstances, to discriminate. The agreements only permit these exceptions under strict conditions. In general, MFN means that every time a country lowers a trade barrier or opens up a market, it has to do so for the same goods or services from all its trading partners — whether rich or poor, weak or strong. Cf.

<[³⁶ BOSSCHE, Peter Van den. *The Law and Policy of the World Trade Organization: Text, Cases and Materials*. Cambridge: Cambridge University Press, p. 650, 2005.](https://www.wto.org/english/thewto_e/whatis_e/tif_e/fact2_e.htm#:~:text=Most%2Dfavoured%2Dnation%20(MFN,for%20all%20other%20WTO%20members.>”. Accessed: 29 apr. 2023.</p></div><div data-bbox=)

³⁷ MATTOO, Aaditya; ROCHA, Nadia; RUTA, Michele. *Handbook of Deep Trade Agreements; Handbook of Deep Trade Agreements*. Washington, DC: World Bank, 2020, p. 3, footnote 1. Available at: <<https://openknowledge.worldbank.org/entities/publication/cd1ad499-f43e-5f52-aea7-34534baa5f15>>. Accessed: 29 apr. 2023.

treaty language.”³⁸ As such, analyzing the legal texts of those trade agreements seems to be an adequate starting point to assess how regulation on innovation has evolved in those instruments, as will be henceforth detailed.

2.1 Agreements notified to the WTO RTA Database

2.1.1 Methodology

According to the WTO Regional Trade Agreements (RTAs) Database, as of 13 March 2023³⁹, there were 355 RTAs in force (amongst those that were notified by the Members)⁴⁰ (listed in **Annex C, Table 53** of this thesis). The Regional Trade Agreements (RTAs) Database was established in 2009 as part of the WTO's Transparency Mechanism for RTAs. RTAs are reciprocal preferential trade agreements between two or more parties and the database is a repository of the legal texts and annexes of all RTAs notified to the WTO, preferential tariff and trade data provided by RTA parties, and other related documents.⁴¹

The parties to an RTA can notify several types of RTAs: (i) a Free Trade Agreement (FTA), as defined in Paragraph 8(b) of Article XXIV of GATT 1994⁴²; (ii) a Customs Union (CU), as defined in Paragraph 8(a) of Article XXIV of GATT 1994⁴³; (iii) an Economic Integration Agreement (EIA), as defined in Article V of GATS⁴⁴; or (iv) a "Partial Scope"

³⁸ BURRY, Mira. Trade Law 4.0: Are We There Yet? In Journal of International Economic Law, v. 25, n. 1, Oxford University Press, p. 9, 2022.

³⁹ This is the cutoff date arbitrarily elected by the present author for the purposes of the assessments conducted throughout this thesis. It is possible that after that date, the WTO RTAs Database is updated to include more agreements – however, if that is the case, they will not be a part of the pool of the agreements herein analyzed, which is thoroughly listed in Annex C of this thesis.

⁴⁰ According to the data publicly available at: <<https://rtais.wto.org/UI/PublicMaintainRTAHome.aspx>>. Accessed: 29 apr. 2023.

⁴¹ Cf. <<https://rtais.wto.org/UI/About.aspx>>. Accessed: 29 apr. 2023.

⁴² Art. XXIV, 8(b): “A free-trade area shall be understood to mean a group of two or more customs territories in which the duties and other restrictive regulations of commerce (except, where necessary, those permitted under Articles XI, XII, XIII, XIV, XV and XX) are eliminated on substantially all the trade between the constituent territories in products originating in such territories.”

⁴³ Art. XXIV, 8(a): “A customs union shall be understood to mean the substitution of a single customs territory for two or more customs territories, so that (i) duties and other restrictive regulations of commerce (except, where necessary, those permitted under Articles XI, XII, XIII, XIV, XV and XX) are eliminated with respect to substantially all the trade between the constituent territories of the union or at least with respect to substantially all the trade in products originating in such territories, and, (ii) subject to the provisions of paragraph 9, substantially the same duties and other regulations of commerce are applied by each of the members of the union to the trade of territories not included in the union;”.

⁴⁴ Art. V of GATS: “1. This Agreement shall not prevent any of its Members from being a party to or entering into an agreement liberalizing trade in services between or among the parties to such an agreement, provided that such an agreement:

Agreement (PS). "Partial Scope", which is not defined or referred to in the WTO Agreement, means that the agreement covers only certain products. Partial scope agreements are notified under paragraph 4(a) of the Enabling Clause.⁴⁵

Before proceeding to the analysis, a few clarifications and caveats are needed regarding the use of such database for the purposes of this thesis. The aforementioned database does not encompass the entirety of the (regional/preferential) trade agreements, as the WTO Secretariat and the WTO Committee on Regional Trade Agreements (CRTA) are constrained to the agreements that were notified by the Members to the WTO, related to trade in goods and/or in services. It is a fact that not all agreements were notified therein: for instance, in a paper that analyzed IP clauses in RTAs (updated in 2014) written by some members of the WTO Secretariat at the time, "*only about two-thirds of the RTAs in force have been notified to the GATT/WTO*".⁴⁶ Moreover, there are agreements that the Members are not obliged to notify to the WTO (for instance, the WTO TRIPS Agreement has no requirement to notify relevant bilateral and regional agreements that set IP standards for their signatories).

Despite such limitations, the database in question provides an extensive, official, objective and organized sample for the purposes of the assessments conducted in this thesis, and has also been used by the (few) comprehensive analyses that have been carried out in the literature on regional trade agreements when analyzing specific provisions contained therein.⁴⁷

Even though the said database provides information on selected provisions covered by RTAs currently in force, neither the keyword "innovation" was included in such selection, nor provisions specifically mentioning "innovation" were gathered in the RTA provisions' Glossary prepared by the Regional Trade Agreement Section of the WTO Secretariat.⁴⁸

Therefore, the specific provisions containing the keyword "innovation" (and the variations "innovative", "innovate" and "innovations", as well as the equivalent terms in other languages of the agreements, such as "*innovación*" and "*inovação*") in each of the RTAs in the sample were established by examining the text of each agreement. The map of provisions was

(a) *has substantial sectoral coverage, and*

(b) *provides for the absence or elimination of substantially all discrimination, in the sense of Article XVII, between or among the parties, in the sectors covered under subparagraph (a), through: (i) elimination of existing discriminatory measures, and/or (ii) prohibition of new or more discriminatory measures, either at the entry into force of that agreement or on the basis of a reasonable time-frame, except for measures permitted under Articles XI, XII, XIV and XIV bis. (...)*".

⁴⁵ Cf. <https://rtais.wto.org/UserGuide/User%20Guide_Eng.pdf>, p. 2. Accessed: 29 apr. 2023.

⁴⁶ Cf. <https://www.wto.org/english/res_e/reser_e/ersd201414_e.pdf>, §16. Accessed: 29 apr. 2023.

⁴⁷ For instance, see the analyses put forward in the papers included in the following WTO publication: ACHARYA, Rohini (Ed.). *Regional Trade Agreements and the Multilateral Trading System*. Cambridge: World Trade Organization and Cambridge University Press, 2016.

⁴⁸ Available at: <https://rtais.wto.org/USERGUIDE/Glossary_MT_Eng.pdf>. Accessed: 29 apr. 2023.

drawn exclusively from the texts of the RTAs. It should be noted that the present thesis will not venture into assessing the consistency of the selected provisions of the RTAs with the WTO Agreements. Neither was an assessment made of the substantive validity or legal enforceability of the RTA provisions.

For completeness of the assessment, the World Bank's Deep Trade Agreements database⁴⁹ was also consulted, though as a secondary source. "Deep Trade Agreements" (DTAs) are reciprocal agreements between countries that cover not just trade but additional policy areas, such as international flows of investment and labor, and the protection of intellectual property rights and the environment, amongst others. While these legal arrangements are still referred to as trade agreements, their goal is integration beyond trade or deep integration. DTAs aim at establishing five "economic integration" rights: free (or freer) movement of goods, services, capital, people, and ideas.⁵⁰

Another important clarification is that, even though the initial assessment was conducted using the keyword "innovation" and the aforementioned variations for the purposes of selecting the RTAs that contained those terms and its specific provisions, the author is well aware that there could be other provisions in the RTAs herein analyzed that do not contain the keyword "innovation" or its variations, but still tackle, regulate and/or promote "innovation" in some way (especially considering that "innovation" is somewhat a broad concept, as seen above). Despite such fact, an initial assessment centered in the term "innovation" can be a valid and objective starting point for the purposes of gauging in literal terms how trade agreements have been mentioning and regulating "innovation" throughout time.

Such assessment will be further complemented with an additional and analogue appraisal – in a separate section of this thesis – focused on the keyword "technology", which is often connected with the issue of "innovation".

Even with the addition of that second keyword, there could still be provisions that do not mention neither the keyword "innovation" nor "technology" that could be relevant to the issue of "innovation". Notwithstanding that, such line of thought could lead to endless possibilities, rendering the assessment limitless and impractical. Thus, the choice of the terms "innovation" (and its variations) and "technology" seems to enable a comprehensive analysis for the purpose of gauging a reasonable understanding on how countries and trade agreements

⁴⁹ Available at: <<https://datatopics.worldbank.org/dta/about-the-project.html>>. Accessed: 29 apr. 2023.

⁵⁰ MATTOO, Aaditya; ROCHA, Nadia; RUTA, Michele. Handbook of Deep Trade Agreements. Washington, DC: World Bank, p. 3, 2020. Available at: <<https://openknowledge.worldbank.org/entities/publication/cd1ad499-f43e-5f52-aea7-34534baa5f15>>. Accessed: 29 apr. 2023.

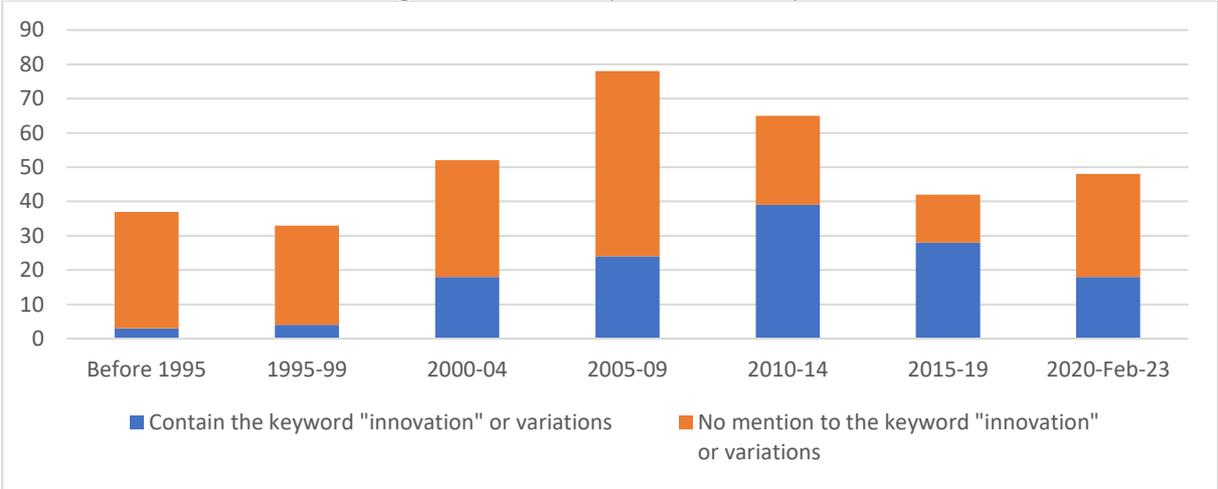
have been regulating the issue of “innovation”. Other keywords could be added in future research, so as to further refine the said assessment.

2.1.1.1 RTAs with the keyword “innovation” or its variations

Following the methodology described above, out of the 355 RTAs in force, 134 (i.e. around 38%) contained the keyword “innovation” (or the variations “innovations”, “innovative” and “innovate”, in different languages), which appeared once or in several instances in those agreements.

The chart below plots all 355 RTAs as well as the subset of those identified as mentioning “innovation” (or the variations “innovative” and “innovate”) by date of entry into force (in blue in the figure below) – which indicates that the pace of adoption of such RTAs accelerated over time.

Figure 1: RTAs by date of entry into force



Source: Author’s calculation based on the information contained in the WTO RTAs Database

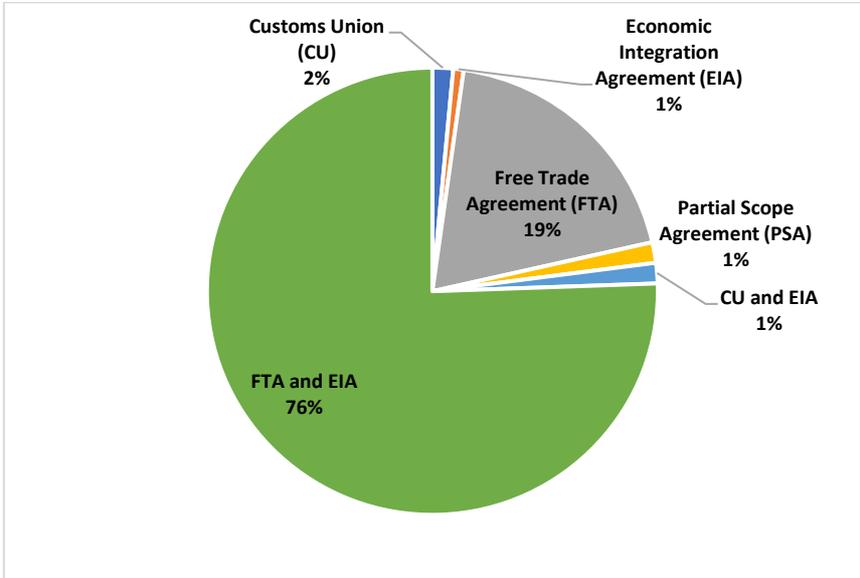
Table 2: Evolution of the adoption in RTAs of provisions that mention the keyword “innovation” or its variations

Year	No mention of the keyword "innovation" or variations	Contain keyword "innovation" or variations	Total
Before 1995	34	3	37
1995-99	29	4	33
2000-04	34	18	52
2005-09	54	24	78
2010-14	26	39	65
2015-19	14	28	42
2020-Feb-23	30	18	48
Total	221	134	355

Source: Author’s calculation based on the information contained in the WTO RTAs Database

As seen previously, the types of economic integration implicit in RTAs can vary substantially, from partial scope agreements (PSA) to free trade agreements (FTAs), customs unions and economic integration agreements (EIAs). Out of the 134 RTAs containing the keyword “innovation” or its variations, 25 are FTAs, while a further 102 involve the higher degree of integration implicit in the combination of an FTA and an EIA. It is worth noting that no new CUs (customs unions) have been notified to the WTO since 2005, which may reflect a degree of disillusionment with customs unions, many of which have fallen short of their stated objectives in practice.⁵¹

Figure 2: RTAs containing provision(s) with the keyword "innovation" or its variations by types of economic integration



Source: Author’s calculation based on the information contained in the WTO RTAs Database

Table 3: RTAs containing provision(s) with the keyword "innovation" or its variations by types of economic integration

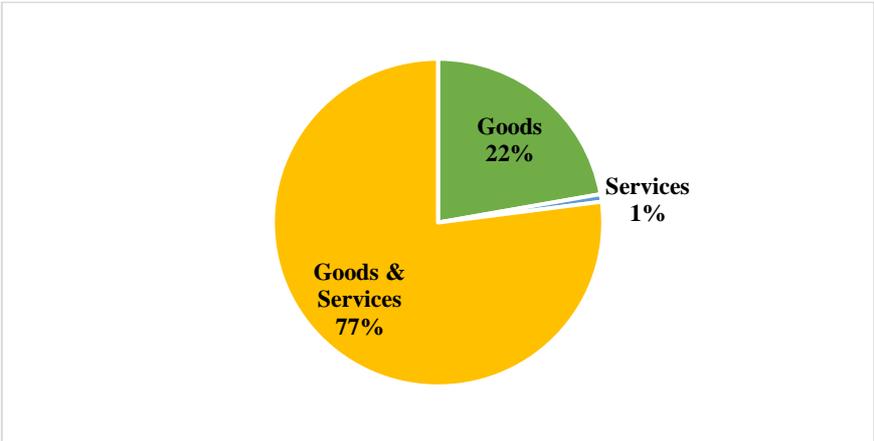
Type:	With the keyword "innovation" or its variations	Total of RTAs notified
Customs Union (CU)	2	12
Economic Integration Agreement (EIA)	1	2
Free Trade Agreement (FTA)	25	128
Partial Scope Agreement (PSA)	2	26
CU and EIA	2	5
FTA and EIA	102	181
PSA and EIA	0	1
Total	134	355

Source: Author’s calculation based on the information contained in the WTO RTAs Database

⁵¹ As documented for the Western Hemisphere in Valdés (2010). Cf. <https://www.wto.org/english/res_e/reser_e/ersd201414_e.pdf>. Accessed: 29 apr. 2023.

Furthermore, 104 out of the 134 RTAs containing the keyword “innovation” or its variations (approx. 77,6%) covered trade in both goods and services, whereas 29 out of the said 134 RTAs covered only trade in goods (i.e. approx. 22%), and 1 out of 134 covered only trade in services (approx. 1%), as illustrated below:

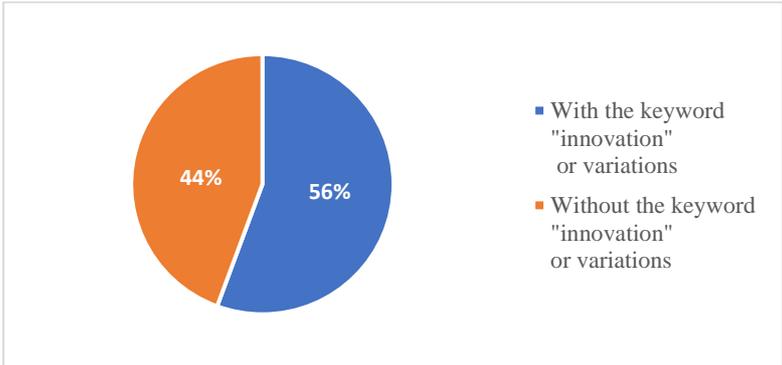
Figure 3: RTAs with the keyword “innovation” or its variations by coverage



Source: Author’s calculation based on the information contained in the WTO RTAs Database

In fact, in total, out of the 355 RTAs, 187 RTAs covered both trade in goods and services (i.e. approx. 52,7% of the RTAs) – and from those 187 RTAs, 104 did have the keyword “innovation” or its variations (approx. 56%), whereas 83 RTAs (approx. 44%) did not have such keywords:

Figure 4: Goods & Services RTAs



Source: Author’s calculation based on the information contained in the WTO RTAs Database

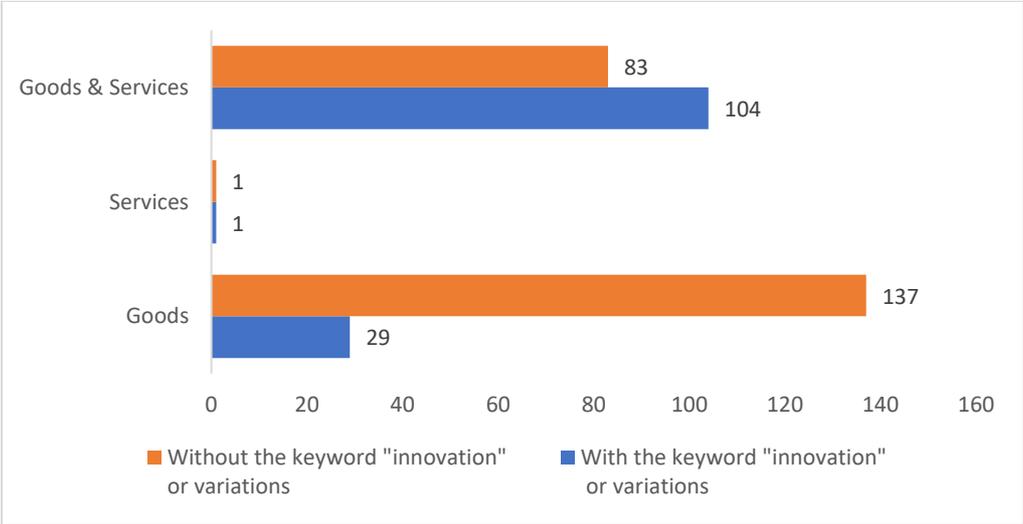
Table 4: RTAs covering Goods & Services that contain or do not contain the keyword “innovation” or its variations

Coverage	With the keyword "innovation" or variations	Without the keyword "innovation" or variations	Total
Goods & Services	104	83	187

Source: Author’s calculation based on the information contained in the WTO RTAs Database

In addition to that, just for reference and completeness, the graphic below presents a breakdown by the type of coverage of all 355 RTAs – which corroborates the finding that the agreements that contain the keyword “innovation” and its variations are mostly those that cover both goods and services issues:

Figure 5: RTAs covering Goods, Services or Goods & Services



Source: Author’s calculation based on the information contained in the WTO RTAs Database

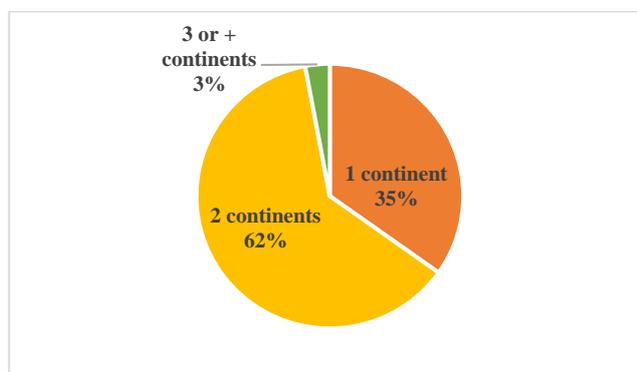
Table 5: RTAs covering Goods, Services or Goods & Services with and without the keyword “innovation” or its variations

Coverage	With the keyword "innovation" or variations	Without the keyword "innovation" or variations	Total
Goods	29	137	166
Services	1	1	2
Goods & Services	104	83	187
Total	134	221	355

Source: Author’s calculation based on the information contained in the WTO RTAs Database

The table and graphic below arrange the RTAs containing the keyword “innovation” or its variations by continent. Almost 35% of the RTAs containing the keyword “innovation” or variations are intra-regional (i.e. between countries located in one single continent), and the rest include trading partners in more than one continent.

Figure 6: Number of RTAs with the keyword "innovation" or variations – Continents covered



Source: Author's calculation based on the information contained in the WTO RTAs Database

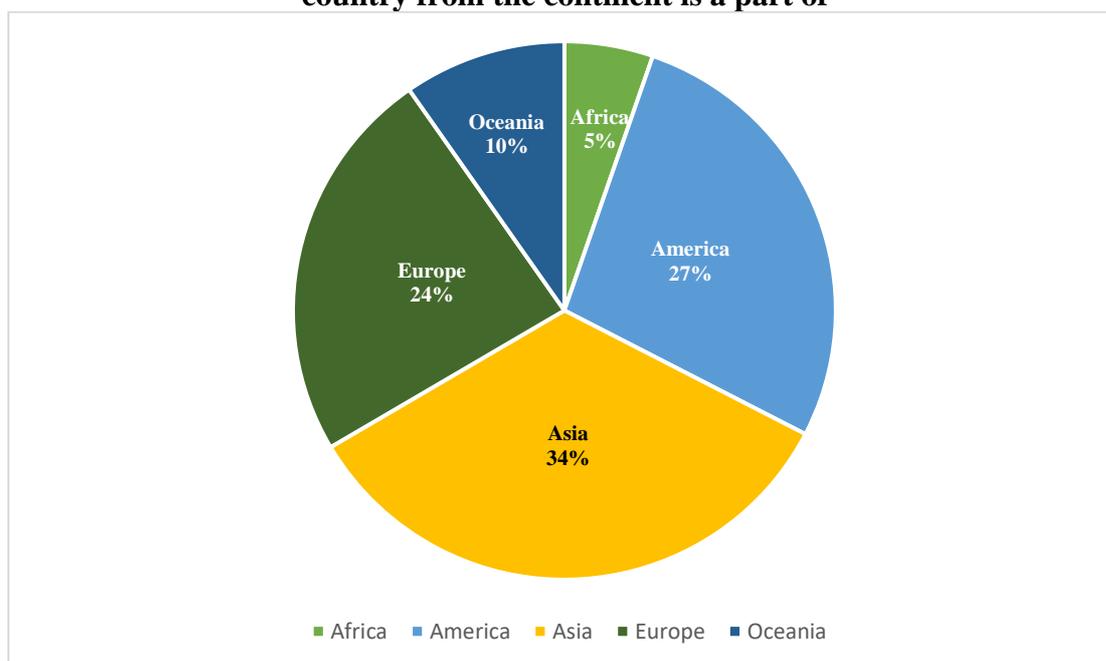
Table 6: Number of RTAs with the keyword "innovation" or variations – Continents covered

Continents	Number of RTAs with the keyword "innovation" or variations	%
1 continent	47	35%
2 continents	83	62%
3 or + continents	4	3%
Total	134	100%

Source: Author's calculation based on the information contained in the WTO RTAs Database

Asia plays a leading role in this respect but both the American and the European continents have also become significant participants to agreements that contain the keyword “innovation” or its variations:

Figure 7: Number of RTAs with the keyword “innovation” or its variations of which a country from the continent is a part of



Source: Author’s calculation based on the information contained in the WTO RTAs Database

Table 7: Number of RTAs with the keyword “innovation” or its variations of which a country from the continent is a part of

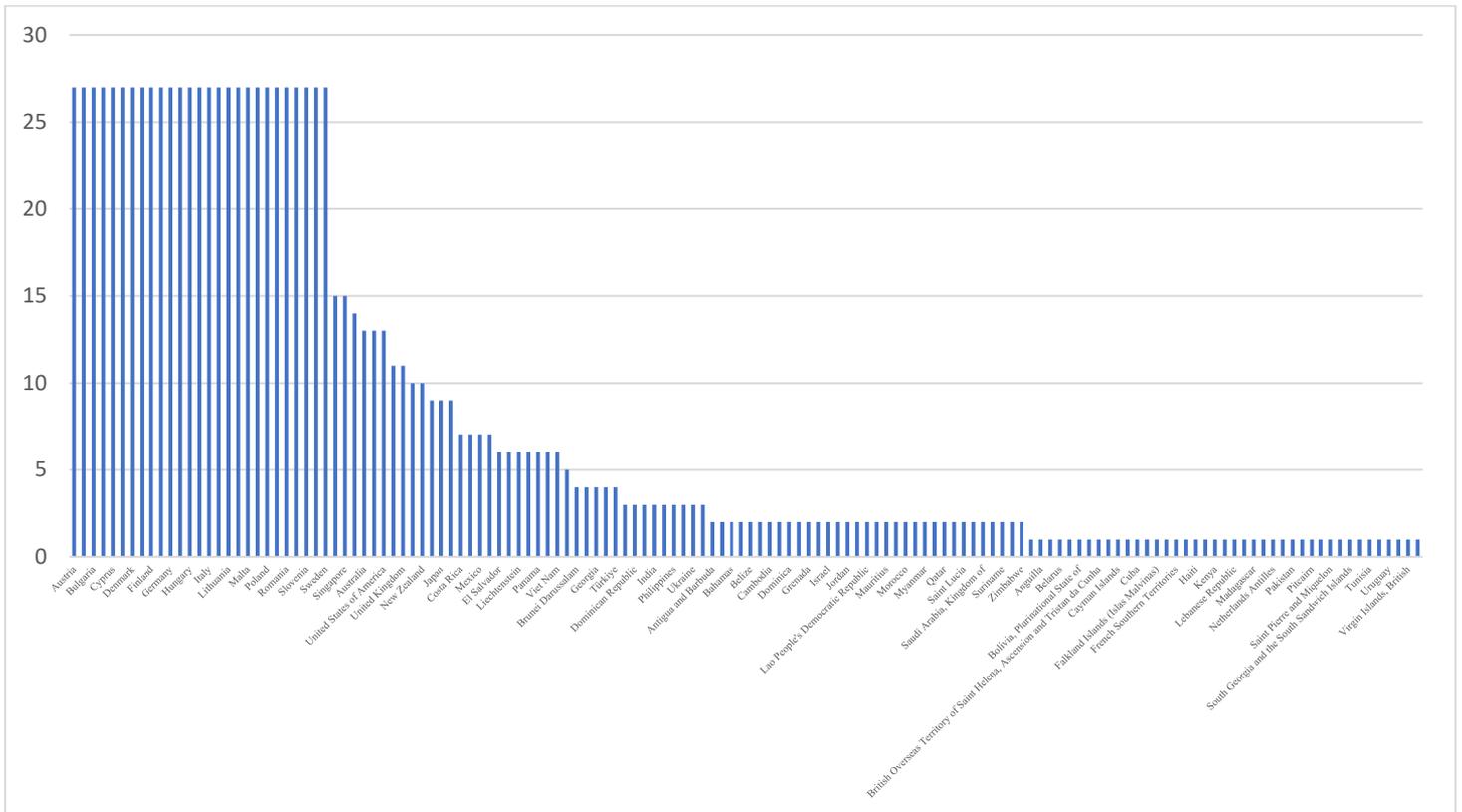
Continents	Number of RTAs with the keyword "innovation" or variations of which a country from the continent is a part of
Africa	12
America	62
Asia	77
Europe	54
Oceania	22
Total	228(*)

(*) the total exceeds 134 RTAs because there are some agreements countries of 2 or more continents are part of.

Source: Author’s calculation based on the information contained in the WTO RTAs Database

A breakdown by countries and/or territories (based on the data extracted from the WTO RTA Database) can be found in the graphic below (please see **Table 49** in **Annex A** of this thesis for more details on the individual countries):

Figure 8: Breakdown by country or territory of the number of RTAs of which those countries are parties of that mention the keyword “innovation” or its variations



Source: Author’s calculation based on the information contained in the WTO RTAs Database

As for the parties’ level of development, it is important to highlight from the outset that the WTO neither defines nor classifies the countries into “developed” or “developing”. Members announce for themselves whether they are “developed” or “developing” countries, and other members can challenge the decision of a member to make use of provisions available to developing countries.⁵² As for the least-developed countries (LDCs), the WTO recognizes them as those countries which have been designated as such by the United Nations (thus, there is a defined list of LDCs).⁵³ Building on that, LDC parties were signatory to 8 RTAs that

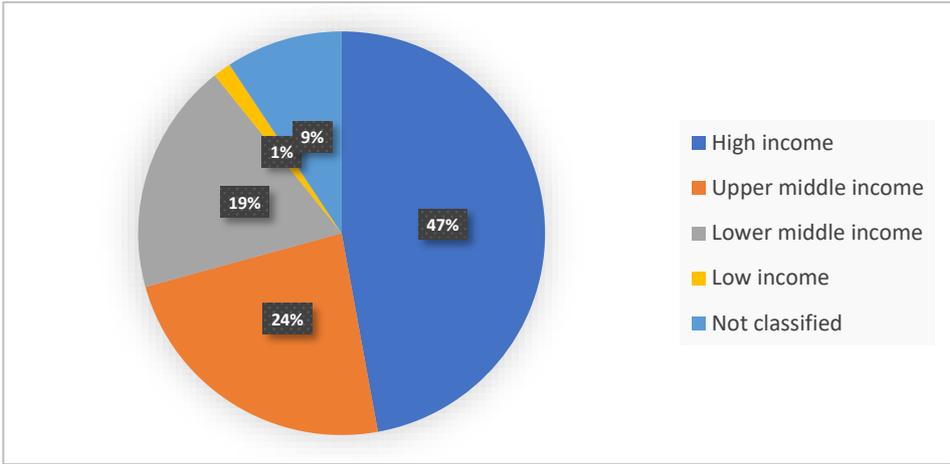
⁵² Cf. <https://www.wto.org/english/tratop_e/devel_e/d1who_e.htm>. Accessed: 29 apr. 2023.

⁵³ There are currently 46 least-developed countries on the UN list, 35 of which to date have become WTO members. These are: Afghanistan; Angola; Bangladesh; Benin; Burkina Faso; Burundi; Cambodia; Central African Republic; Chad; Congo, Democratic Republic of the; Djibouti; Gambia; Guinea; Guinea Bissau; Haiti; Lao People’s Democratic Republic; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mozambique; Myanmar; Nepal; Niger; Rwanda; Senegal; Sierra Leone; Solomon Islands; Tanzania; Togo; Uganda; Yemen; Zambia. Eight more least-developed countries are negotiating to join the WTO. They are: Bhutan, Comoros, Ethiopia, Sao Tomé & Príncipe, Somalia, South Sudan, Sudan and Timor-Leste. Cf. <https://www.wto.org/english/thewto_e/whatis_e/tif_e/org7_e.htm>. Accessed: 29 apr. 2023.

mention the keyword “innovation” or its variations (namely: Cambodia, Comoros, Haiti, Lao, Lesotho, Madagascar, Mozambique and Myanmar).

For reference purposes, the World Bank provides a classification of the world’s economies into four income groups: low, lower-middle, upper-middle, and high-income countries, updated each year on July 1. That classification is based on GNI (Gross National Income) per capita in current USD (using the Atlas method exchange rates) of the previous year⁵⁴. According to that current classification by income, out of the 140 countries and territories that have signed at least one RTA that mentions the keyword “innovation” or its variations, 66 were classified by the World Bank as high-income (around 47%), 33 as upper middle income (around 23,6%), 28 as lower middle income (20%), 2 as low income (around 1,4%), and 13 were not classified⁵⁵ by the World Bank (around 9%) (for a breakdown by countries and territories, see **Table 50** in **Annex A** of this thesis).

Figure 9: Countries or territories by income level that are parties to RTAs that have the keyword "innovation" or its variations



The table below summarizes the main initial findings that could be extracted from the information presented in this section. In sum:

⁵⁴ For the current 2023 fiscal year, low-income economies are defined as those with a GNI per capita, calculated using the World Bank Atlas method, of \$1,085 or less in 2021; lower middle-income economies are those with a GNI per capita between \$1,086 and \$4,255; upper middle-income economies are those with a GNI per capita between \$4,256 and \$13,205; high-income economies are those with a GNI per capita of \$13,205 or more. Cf. <<https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>>. Accessed: 29 apr. 2023.

⁵⁵ Either because they are not considered as countries (but rather as territories), or in the case of Venezuela, which has been temporarily unclassified as of July 2021 pending release of revised national accounts statistics. Accessed: 29 apr. 2023.

- The far majority (102 out of 134) of the trade agreements that mention the keyword “innovation” or its variations are those that are a combination of an FTA (free trade agreement) and an EIA (economic integration agreement) – which involve a higher degree of integration;
- The far majority (104 out of 134) of the RTAs that contained the keyword “innovation” or its variations covered trade in both goods and services;
- The majority of the RTAs that contained the keyword “innovation” or its variations were actually between countries from different continents (inter-regional), with emphasis to Europe-Asia RTAs (22 RTAs). Moreover, there were 47 RTAs between countries in the same region (intra-regional) that contained the keyword “innovation” or its variations, specially between countries located in the American continent (24 RTAs).

Table 8: RTAs containing “innovation” provisions

	Total
Type:	
Customs Union (CU)	2
Economic Integration Agreement (EIA)	1
Free Trade Agreement (FTA)	25
Partial Scope Agreement (PSA)	2
CU and EIA	2
FTA and EIA	102
PSA and EIA	0
Coverage:	
Goods	29
Services	1
Goods and Services	104
Continent:	
Americas	24
Americas-Asia	19
Americas-Europe	11
Americas-Oceania	3
Europe	7
Europe-Africa	11
Europe-Asia	22
Europe-Oceania	0
Asia	16
Africa	0
Africa-Americas	1
Africa-Asia	0
Africa-Oceania	0
RTA containing “innovation” provisions	134
RTAs not containing “innovation” provisions	221
All RTAs (from the WTO RTA Database)	355

Source: Author’s calculation based on the information contained in the WTO RTAs Database

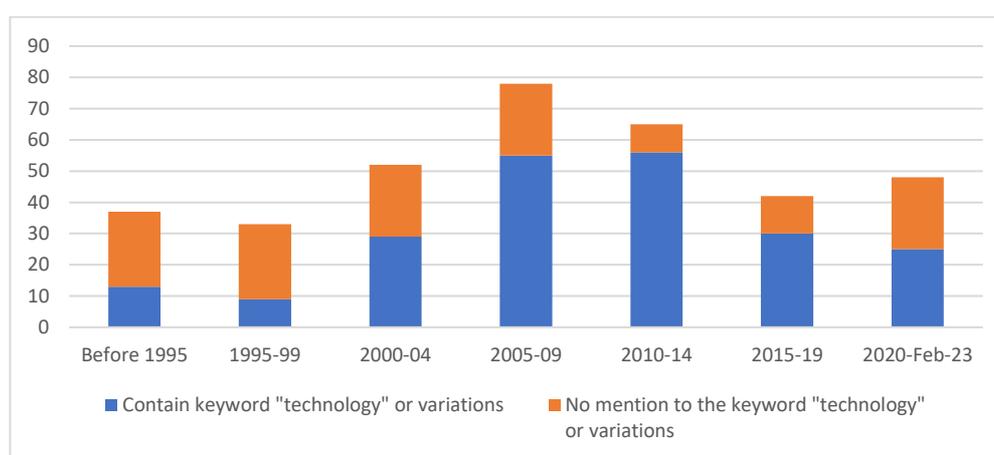
2.1.1.2 RTAs with the keyword “technology” or its variations

Following the same methodology applied in the previous section (dedicated to the keyword “innovation”), the next step will be to verify whether the results using the keyword “technology” are consistent to those found with the keyword “innovation”, for comparison purposes and eventual consolidation.

First of all, out of the 355 RTAs in force, 217 (i.e. around 61%) contained the keyword “technology” (or the variations “technologies”, “technologic” or “technological”, in different languages), which appeared once or in several instances in those agreements.

The chart below plots all 355 RTAs as well as the subset of those identified as mentioning “technology” or its variations by date of entry into force (in blue in the figure below) – which indicates that the pace of adoption of such RTAs also increased over time, with the same peak period as the results for the keyword “innovation” (i.e. the period of 2010-14):

Figure 10: RTAs by date of entry into force that mention the keyword “technology” or its variations



Source: Author’s calculation based on the information contained in the WTO RTAs Database

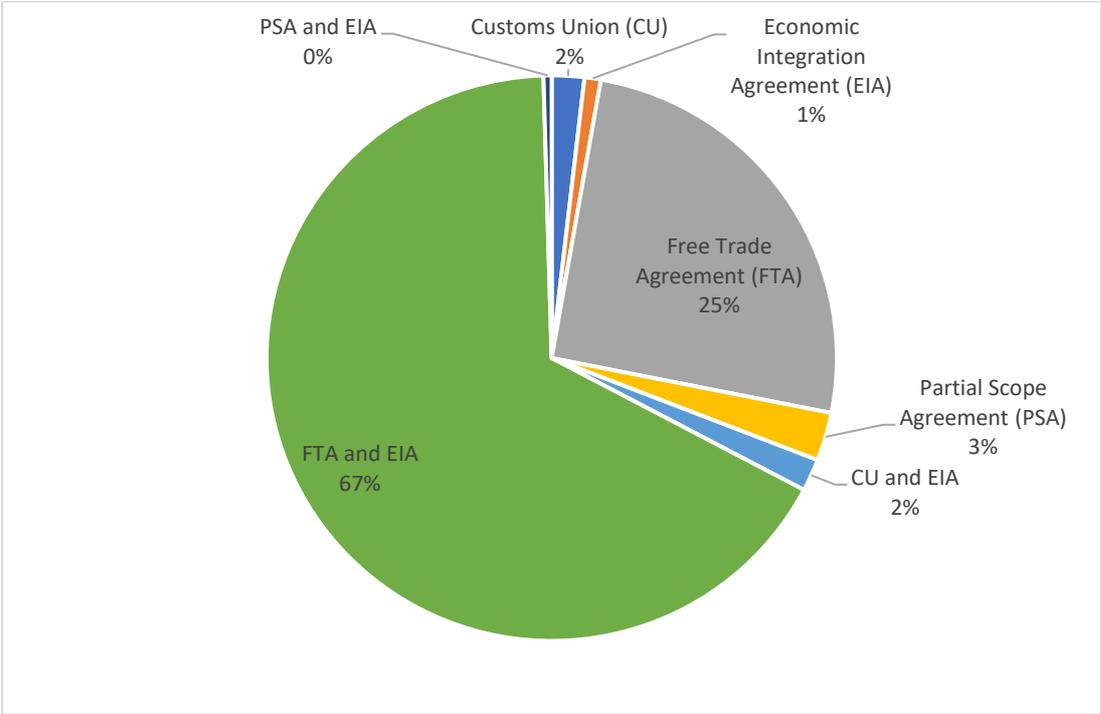
Table 9: Evolution of the adoption in RTAs of provisions that mention the keyword “technology” or its variations

Year	No mention of the keyword "technology" or variations	Contain keyword "technology" or variations	Total
Before 1995	24	13	37
1995-99	24	9	33
2000-04	23	29	52
2005-09	23	55	78
2010-14	9	56	65
2015-19	12	30	42
2020-Feb-23	23	25	48
Total	138	217	355

Source: Author’s calculation based on the information contained in the WTO RTAs Database

Concerning the types of economic integration implicit in RTAs, out of the 217 RTAs containing the keyword “technology” or its variations, 55 are FTAs (i.e. 25%), while a further 145 (i.e. 67%) involve the higher degree of integration implicit in the combination of an FTA and an EIA – which is a similar result to the one found with the keyword “innovation”, in which the far majority of the agreements were a combination of FTA and EIA (76%), followed by FTAs (19%).

Figure 11: RTAs containing provision(s) with the keyword "technology" or its variations by types of economic integration



Source: Author’s calculation based on the information contained in the WTO RTAs Database

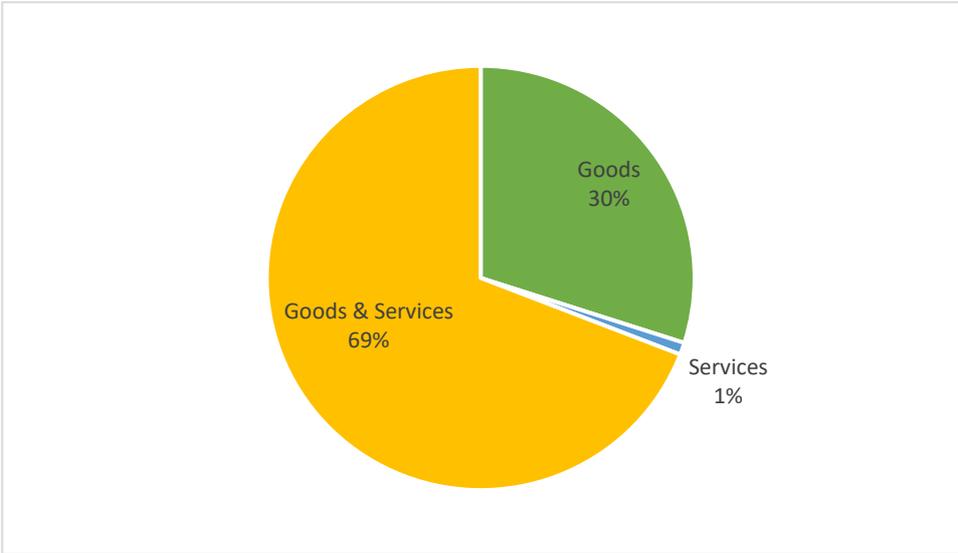
Table 10: RTAs containing provision(s) with the keyword "technology" or its variations by types of economic integration

Type:	With the keyword "technology" or its variations	Total of RTAs notified
Customs Union (CU)	4	12
Economic Integration Agreement (EIA)	2	2
Free Trade Agreement (FTA)	55	128
Partial Scope Agreement (PSA)	6	26
CU and EIA	4	5
FTA and EIA	145	181
PSA and EIA	1	1
Total	217	355

Source: Author’s calculation based on the information contained in the WTO RTAs Database

Furthermore, 150 out of the 217 RTAs containing the keyword “technology” or its variations (approx. 69%) covered trade in both goods and services, whereas 65 out of the said 217 RTAs covered only trade in goods (i.e. approx. 30%), and 2 out of 217 covered only trade in services (approx. 1%), as illustrated below – which is a similar proportion to that found when analyzing the keyword “innovation” (77% in agreements that covered goods and services; 22% in agreements that covered only goods; and 1% in agreements only on services):

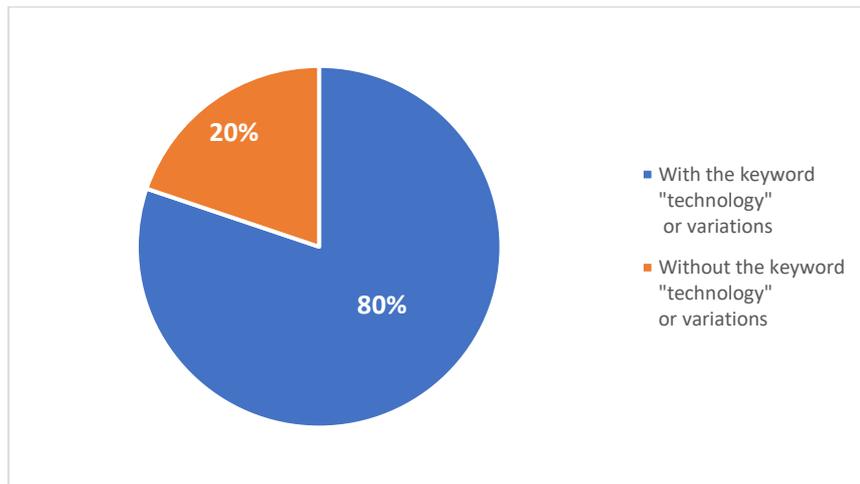
Figure 12: RTAs with the keyword “technology” or its variations by coverage



Source: Author’s calculation based on the information contained in the WTO RTAs Database

In fact, in total, out of the 355 RTAs, 187 RTAs covered both trade in goods and services (i.e. approx. 52,7 % of the RTAs) – and from those 187 RTAs, 150 did have the keyword “technology” or its variations (approx. 80 %), whereas 37 RTAs (approx. 20 %) did not have such keywords. Just for comparison purposes, in the case of the keyword “innovation”, the majority of the RTAs that covered both trade in goods and services also mentioned the keyword “innovation” (56% of those RTAs).

Figure 13: Goods & Services RTAs



Source: Author’s calculation based on the information contained in the WTO RTAs Database

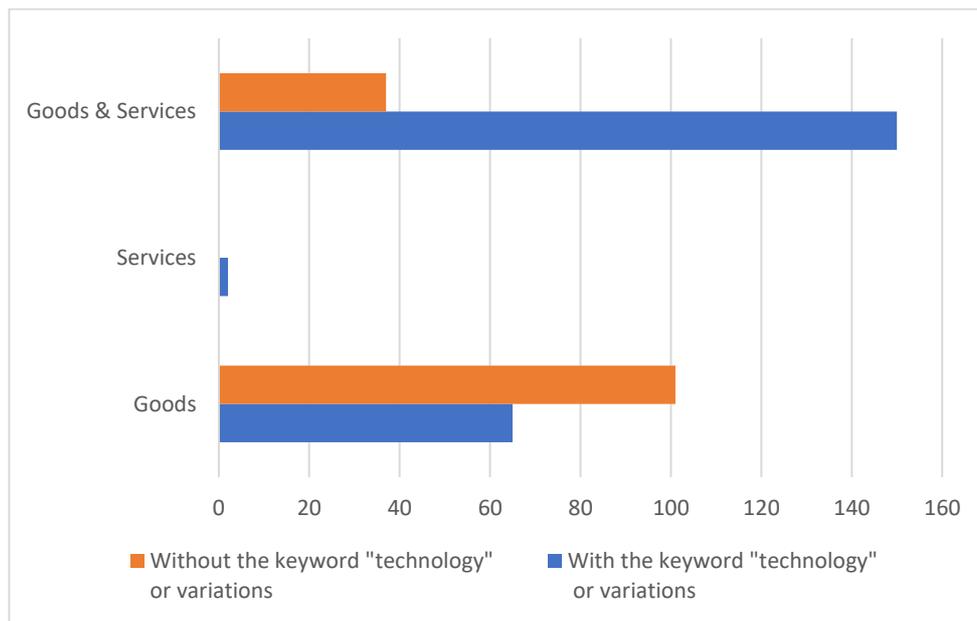
Table 11: RTAs covering Goods & Services that contain or not the keyword “technology” or its variations

Coverage	With the keyword "technology" or variations	Without the keyword "technology" or variations	Total
Goods & Services	150	37	217

Source: Author’s calculation based on the information contained in the WTO RTAs Database

In addition to that, just for reference and completeness, the graphic below presents a breakdown by the type of coverage of all 355 RTAs – which corroborates the finding that the agreements that contain the keyword “technology” and its variations are mostly those that cover both goods and services issues:

Figure 14: RTAs covering Goods, Services or Goods & Services



Source: Author’s calculation based on the information contained in the WTO RTAs Database

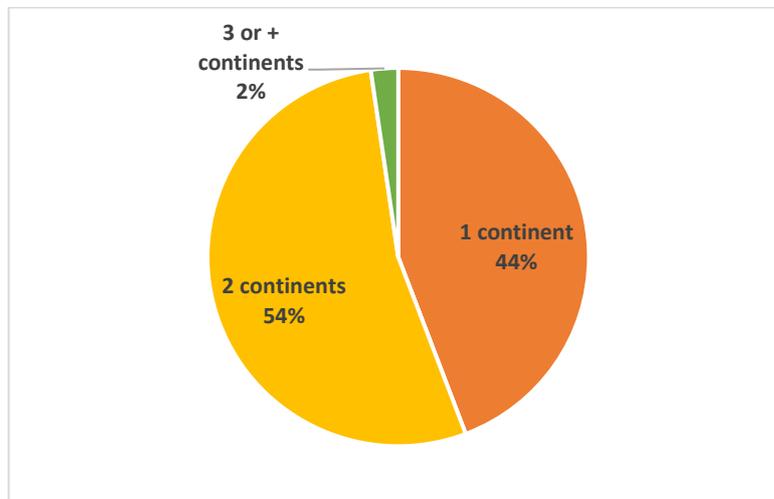
Table 12: RTAs covering Goods, Services or Goods & Services with and without the keyword “technology” or its variations

Coverage	With the keyword "technology" or variations	Without the keyword "technology" or variations	Total
Goods	65	101	166
Services	2	0	2
Goods & Services	150	37	187
Total	217	138	355

Source: Author’s calculation based on the information contained in the WTO RTAs Database

The table and graphic below arrange the RTAs containing the keyword “technology” or its variations by continent. Almost 44% of the RTAs containing the keyword “technology” or variations are intra-regional (i.e. between countries located in one single continent), and the rest include trading partners in more than one continent. Similarly to the case of the keyword “innovation”, in the case of the keyword “technology” or its variations, the majority of the RTAs also involved partners from 2 continents (54% of the RTAs, whereas in the case of the keyword “innovation” the percentage was 62%):

Figure 15: Number of RTAs with the keyword "technology" or variations – Continents covered



Source: Author’s calculation based on the information contained in the WTO RTAs Database

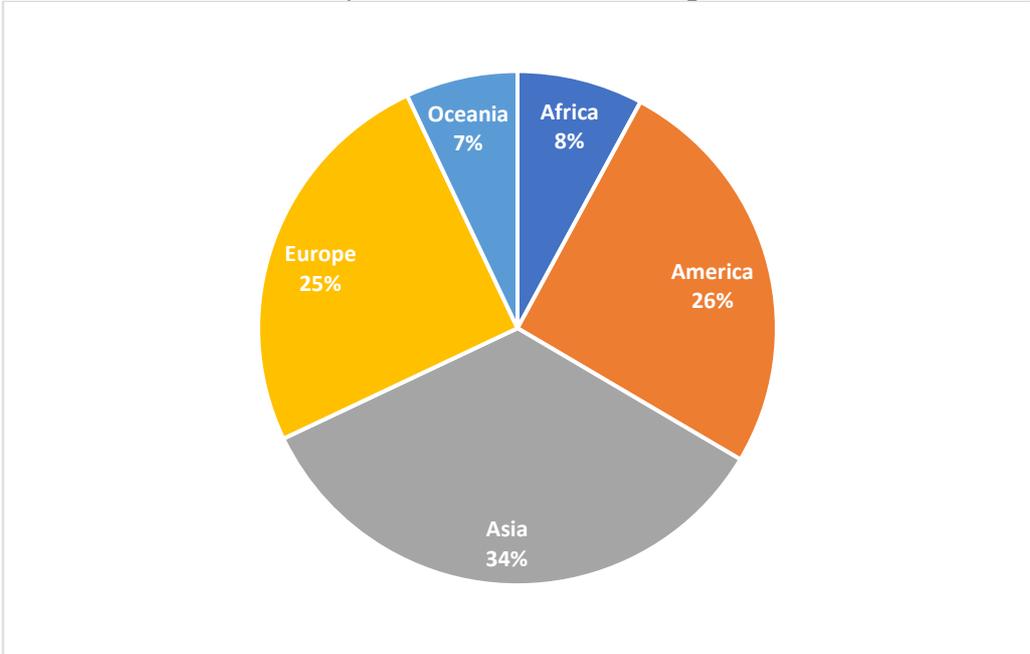
Table 13: Number of RTAs with the keyword "technology" or variations – Continents covered

Continents	Number of RTAs with the keyword "technology" or variations	%
1 continent	96	44%
2 continents	116	54%
3 or + continents	5	2%
Total	217	100%

Source: Author’s calculation based on the information contained in the WTO RTAs Database

Just as in the case of the keyword “innovation”, Asia plays a leading role in this respect but both the American and the European continents have also become significant participants to agreements that contain the keyword “technology” or its variations:

Figure 16: Number of RTAs with the keyword “technology” or its variations of which a country from the continent is a part of



Source: Author’s calculation based on the information contained in the WTO RTAs Database

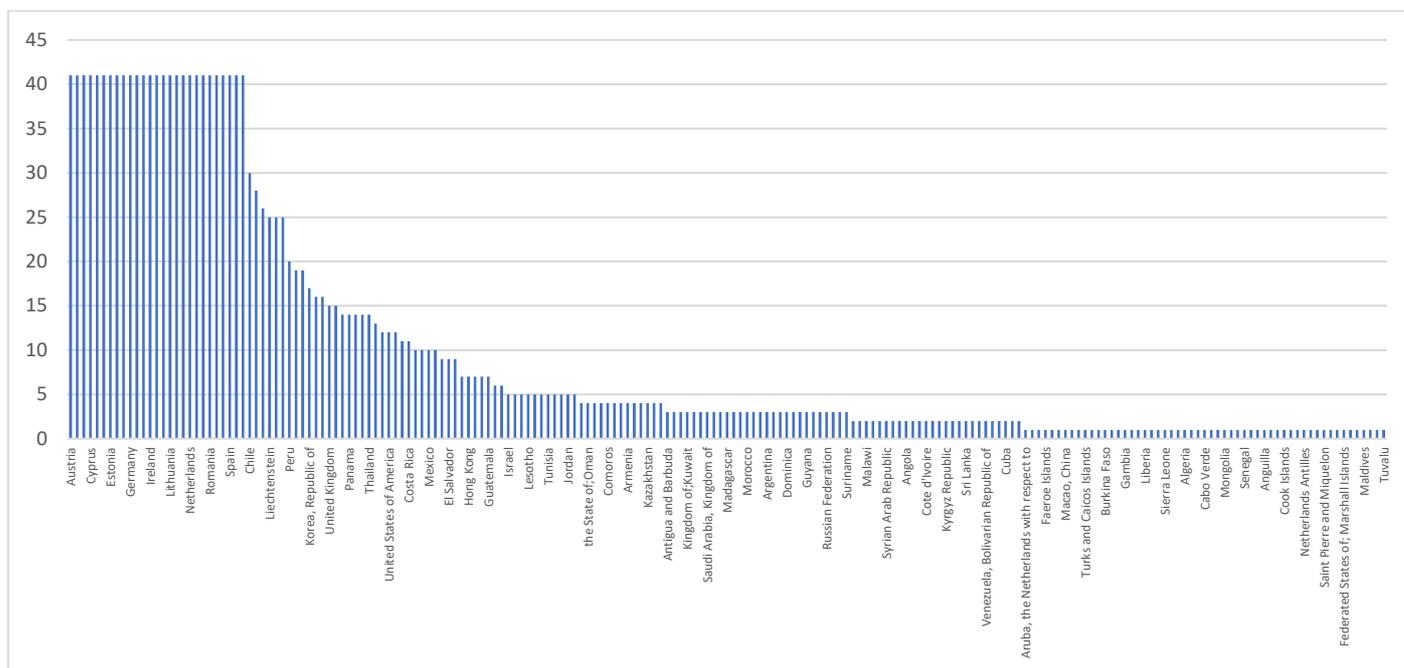
Table 14: Number of RTAs with the keyword “technology” or its variations of which a country from the continent is a part of

Continents	Number of RTAs with the keyword "technology" or variations of which a country from the continent is a part of
Africa	27
America	88
Asia	118
Europe	86
Oceania	24
Total	343 (*)

(*) the total exceeds 217 RTAs because there are some agreements countries of 2 or more continents are part of.
 Source: Author’s calculation based on the information contained in the WTO RTAs Database

A breakdown by countries and/or territories (based on the data extracted from the WTO RTA Database) can be found in the graphic below (please see **Table 51** in **Annex A** of this thesis for more details on the individual countries):

Figure 17: Breakdown by country or territory of the number of RTAs of which those countries are parties of that mention the keyword “technology” or its variations



Source: Author’s calculation based on the information contained in the WTO RTAs Database

As for the parties’ level of development, practically all LDCs were signatories of at least one RTA that mentions the keyword “technology” or its variations⁵⁶, with special mention to Lao (that is party to 10 RTAs that mention the keyword “technology” or its variations), Cambodia and Myanmar (that are parties to 9 RTAs each that mention the said keyword)⁵⁷.

For reference purposes, according to the World Bank’s classification by income groups, out of the 199 countries and territories that have signed at least one RTA that mentions the keyword “technology” or its variations, 68 were classified by the World Bank as high-income (around 34%), 47 as upper middle income (around 24%), 46 as lower middle income (around 23%), 23 as low income (around 11,5%), and 15 were not classified⁵⁸ by the World Bank (around 7,5 %) (for a breakdown by countries and territories, see **Table 52 in Annex A** of this thesis). Such structure is similar to the results found with the keyword “technology”, with the

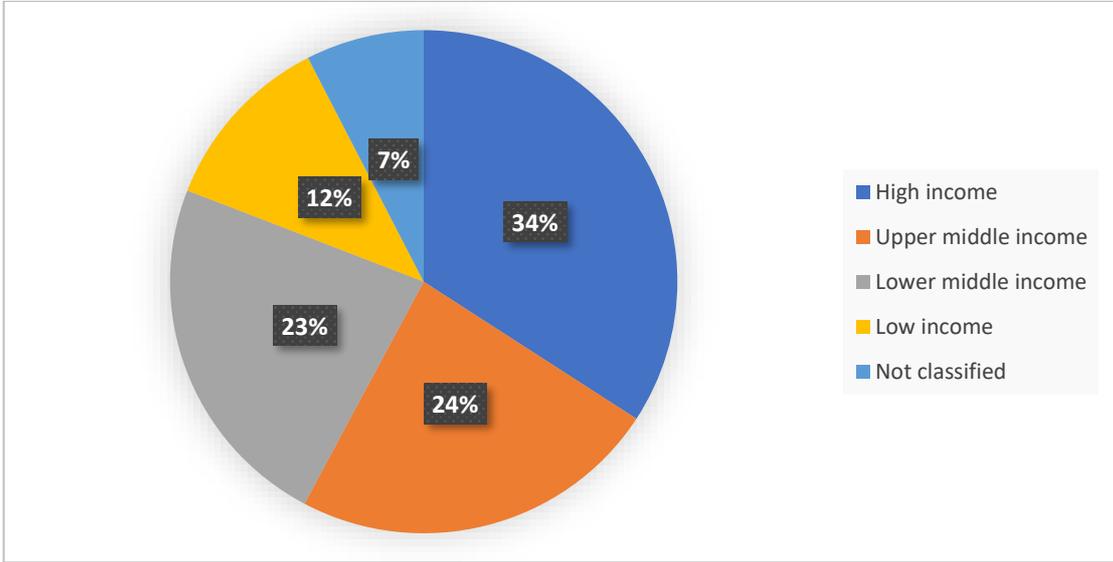
⁵⁶ Namely: Afghanistan, Angola, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, Gambia, Guinea, Guinea-Bissau, Haiti, Lao, Lesotho, Liberia, Madagascar, Malawi, Mali, Mozambique, Myanmar, Nepal, Niger, Rwanda, Senegal, Sierra Leone, Solomon Islands, Tanzania, Togo, Uganda, Yemen, Zambia.

⁵⁷ Mainly due to the fact of being either parties to the ASEAN FTA (the case of Lao, Cambodia and Myanmar) and/or of CPTPP (the case of Myanmar) and/or of APTA (the case of Lao).

⁵⁸ Either because they are not considered as countries (but rather as territories), or in the case of Venezuela, which has been temporarily unclassified as of July 2021 pending release of revised national accounts statistics.

difference that there were more “low income” countries that signed RTAs that had the keyword “technology” or its variations (23 countries or territories) than those that are parties to RTAs with the keyword “innovation” or its variations (2 countries or territories).

Figure 18: Countries or territories by income level that are parties to RTAs that have the keyword "technology" or its variations



The table below summarizes the main initial findings that could be extracted from the information presented in this section, which **are in general terms very similar to those found in the assessment previously conducted centered on the keyword “innovation”**. In sum:

- The far majority (145 out of 217, i.e. 67%) of the trade agreements that mention the keyword “technology” or its variations are those that are a combination of an FTA (free trade agreement) and an EIA (economic integration agreement) – which involve a higher degree of integration – which is the same general outcome reached with the keyword “innovation”;
- The far majority (150 out of 217, i.e. 69%) of the RTAs that contained the keyword “technology” or its variations covered trade in both goods and services – also the same general outcome found with the keyword “innovation”;
- The majority (54%) of the RTAs that contained the keyword “technology” or its variations were between countries from different continents (inter-regional), similarly to the result found with the keyword “innovation”.

Table 15: RTAs containing “technology” provisions

	Total
Type:	
Customs Union (CU)	4
Economic Integration Agreement (EIA)	2
Free Trade Agreement (FTA)	55
Partial Scope Agreement (PSA)	6
CU and EIA	4
FTA and EIA	145
PSA and EIA	1
Coverage:	
Goods	65
Services	2
Goods and Services	150
Continent: (*)	
Americas	38
Americas-Asia	29
Americas-Europe	12
Americas-Oceania	3
Europe	19
Europe-Africa	17
Europe-Asia	33
Europe-Oceania	2
Asia	33
Africa	4
Africa-Americas	2
Africa-Asia	3
Africa-Oceania	0
RTA containing “technology” provisions	217
RTAs not containing “technology” provisions	134
All RTAs (from the WTO RTA Database)	355

(*) the RTAs that involved 3 or more continents were not included in the present table

Source: Author’s calculation based on the information contained in the WTO RTAs Database

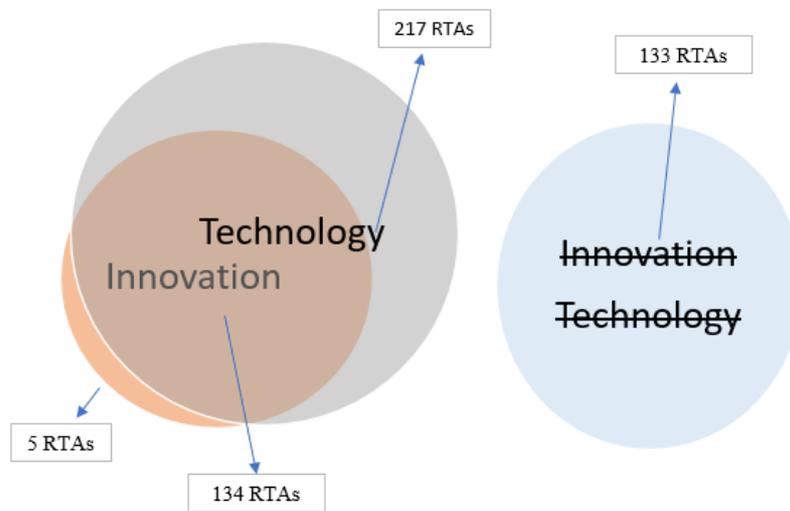
2.1.1.3 Consolidated results with the keywords “innovation” and “technology” and its variations

The data presented in the previous sections has shown that, at least numerically, there is significant overlap in terms of the recurrence in RTAs between the keyword “innovation” (and its variations) and the keyword “technology” and its variations, as there are 129 RTAs that mention both the keyword “innovation” and “technology” and its variations, and only 5 RTAs that mention solely the keyword “innovation” – thus, *a priori*, it seems like “innovation” is often linked with the concept of “technology” in the RTAs herein analyzed (though not necessarily in the same provisions of each agreement). Moreover, the word “technology” is more often used than the word “innovation”, having appeared in 217 RTAs, as detailed in the table and the figure below.

Table 16: Consolidated results (in numerical terms) of the recurrence of the keywords “innovation” and “technology” in the RTAs

Feature of the RTAs	Number of RTAs
Mention the keyword "innovation" or its variations	134
Mention the keyword "technology" or its variations	217
Mention the Keywords "innovation" AND "technology" or its variations	129
Mention at least one of those keywords	222
Mention ONLY the keyword "innovation" or its variations	5
Mention ONLY the keyword "technology" or its variations	88
NO mention of "innovation" or "technology"	133

Figure 19: Consolidated results of the recurrence of the keywords “innovation” and “technology” in the RTAs herein analyzed



Author: author’s elaboration

The question that remains is whether there is an overlap **in terms of the content of the provisions** that contain the keywords abovementioned, as the analysis so far was solely numerical and centered on each RTA as a whole, and not on the individual provisions of each RTA. The next section will delve into the provisions themselves in which those keywords came up in the attempt to answer such question.

2.1.2 Particular categories of provisions with the keywords “innovation” and “technology” or its variations in RTAs

Provisions that mention the term “innovation” (or the variations “innovations”, “innovative” and “innovate”) vary widely in terms of nature, scope and depth. The following sections will delve into the different ways in which the terms at hand have been applied in RTAs.

Such clauses on innovation could be considered as ‘WTO-extra’ (or ‘WTO-X’) provisions, which expand the scope of the WTO going beyond the current WTO mandate (as opposed to WTO-plus clauses, which deepens the scope of existing WTO commitments by building on areas already agreed at a multilateral level).⁵⁹

As detailed below, the term “innovation” and its variations are more often included in Chapters, Sections or Provisions on **cooperation commitments**, followed by **provisions on IP** and in the **Preamble/Objectives**:

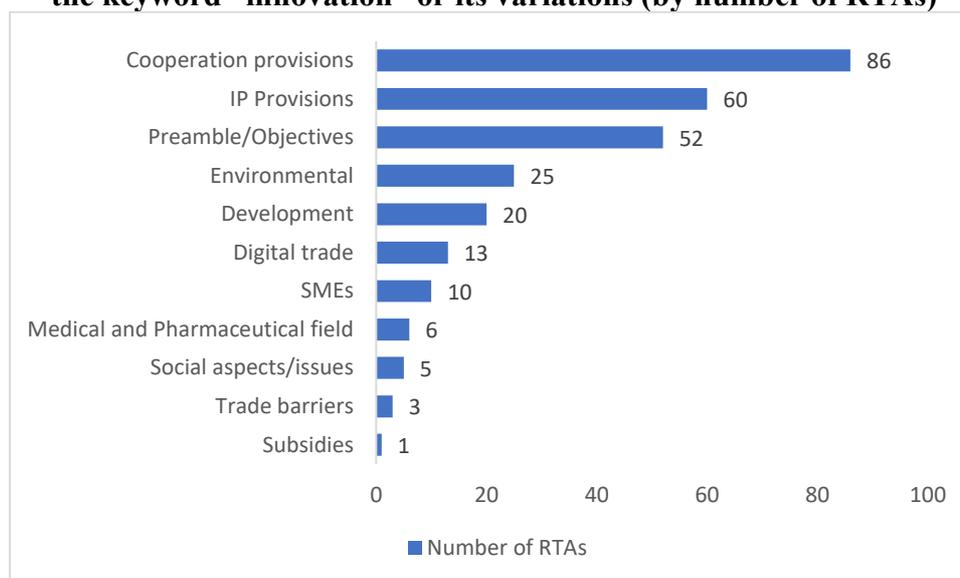
Table 17: Categories of Chapters, Sections or Provisions that most frequently mention the keyword “innovation” or its variations

Themes	RTAs	Total	% of Total
Cooperation provisions	86	134	64,18%
IP Provisions	60	134	44,78%
Preamble/Objectives	52	134	38,81%
Environmental	25	134	18,66%
Development	20	134	14,93%
Digital trade	13	134	9,70%
SMEs	10	134	7,46%
Medical and Pharmaceutical field	6	134	4,48%
Trade barriers	3	134	2,24%
Social aspects/issues	5	134	3,73%
Subsidies	1	134	0,75%

Source: Author’s calculation based on the information contained in the WTO RTAs Database

⁵⁹ SUN, Jin. Do Higher-Quality Regional Trade Agreements Improve the Quality of Export Products from China to “One-Belt One-Road” Countries? In *Asian Economic Journal*, v. 35, n. 2, p. 2, 2021.

Figure 20: Categories of Chapters, Sections or Provisions that most frequently mention the keyword “innovation” or its variations (by number of RTAs)



Source: Author’s calculation based on the information contained in the WTO RTAs Database

Similarly – though with notable distinctions –, provisions that mention the term “technology” or its variations also vary widely in terms of nature, scope and depth.

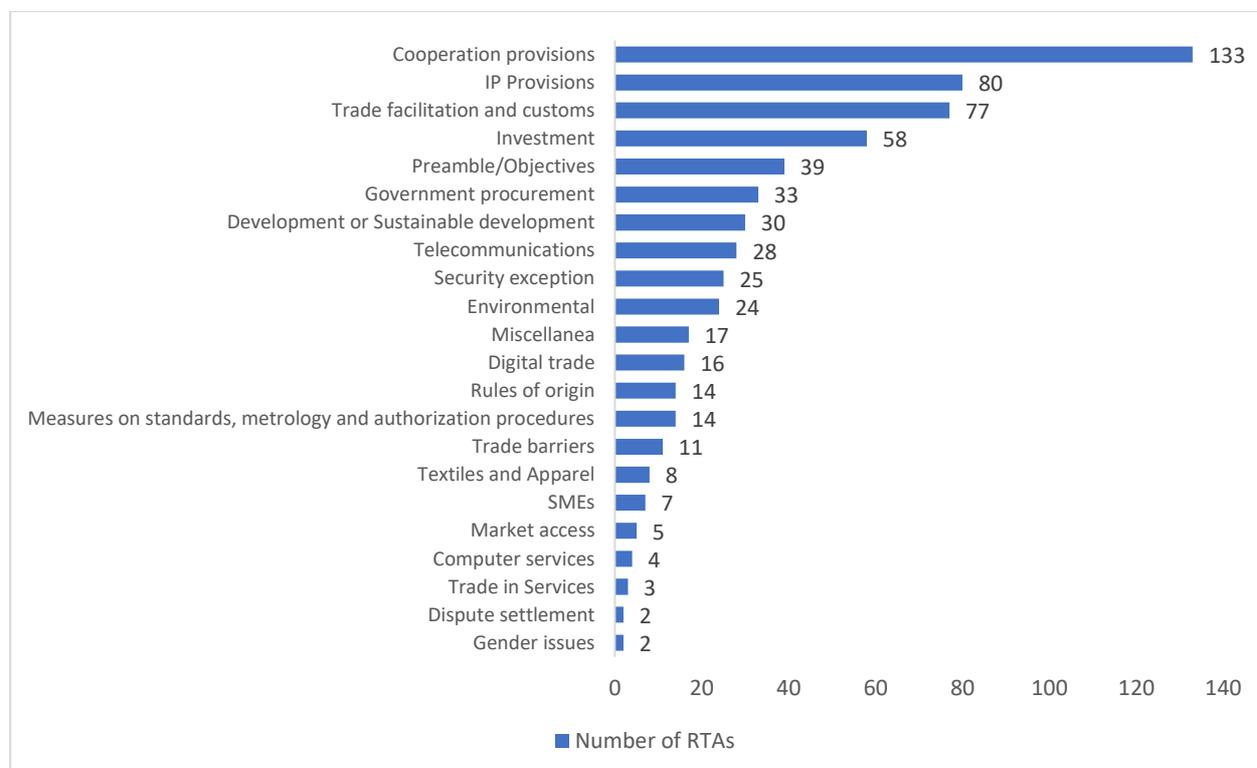
The term “technology” and its variations are more often included in Chapters, Sections or Provisions on **cooperation commitments**, followed by **provisions on IP**, as detailed below – **the same two categories that were the most recurrent amongst the provisions that mentioned the keyword “innovation and its variations**. As for the other categories that were mapped, there are some of those that also came up with the keyword “innovation” (namely, “Preamble/Objectives”, “Development or Sustainable development”, “Environmental”, “Digital trade”, “SMEs” and “Trade barriers”), but numerous other categories that were found only with the keyword “technology” – probably due to the fact that it is a term more commonly used in the RTAs than “innovation” –, such as “Trade facilitation and customs”, “Investment”, “Government procurement” and “Telecommunications”, as seen in the Table below and thoroughly detailed in **Annex B** of this thesis:

Table 18: Categories of Chapters, Sections or Provisions that most frequently mention the keyword “technology” or its variations

Themes	RTAs	Total	% of Total
Cooperation provisions	133	217	61,2%
IP Provisions	80	217	36,9%
Trade facilitation and customs	77	217	35,4%
Investment	58	217	26,7%
Preamble/Objectives	39	217	18%
Government procurement	33	217	15,2%
Development or Sustainable development	30	217	13,8%
Telecommunications	28	217	12,9%
Security exception	25	217	11,5%
Environmental	24	217	11%
Miscellanea	17	217	8%
Digital trade	16	217	7,3%
Measures on standards, metrology and authorization procedures	14	217	6,4%
Rules of origin	14	217	6,4%
Trade barriers	11	217	5%
Textiles and Apparel	8	217	3,6%
SMEs	7	217	3,2%
Market access	5	217	2,3%
Computer services	4	217	1,8%
Trade in Services	3	217	1,4%
Gender issues	2	217	0,9%
Dispute settlement	2	217	0,9%

Source: Author’s calculation based on the information contained in the WTO RTAs Database

Figure 21: Categories of Chapters, Sections or Provisions that most frequently mention the keyword “technology” or its variations (by number of RTAs)



Source: Author’s calculation based on the information contained in the WTO RTAs Database

Even though neither the term “innovation” nor the term “technology” was defined in the RTAs analyzed so far, by looking at the content of the provisions mapped in the present thesis, **it is clear that “innovation” and “technology” are not being used as synonyms or as interchangeable terms in the trade agreements herein analyzed.** In fact, a couple of variations were observed:

- (i) as “technological innovation”, as if it were a kind of innovation, and/or implicitly suggesting that innovation in a given RTA is viewed from the technological perspective. Such term “technological innovation” appeared 50 times amongst the RTAs herein analyzed, spread amongst 44 RTAs, and mostly in provisions on cooperation commitments, intellectual property and on the preamble/objectives of the agreements. A few examples are:

EU – Central America⁶⁰ (in force since 01 Aug. 2013):

“CONVINCED that this Agreement will create a climate conducive to growth in sustainable economic relations between them, more particularly in the trade and investment sectors which are essential to the realisation of the economic and social development and **technological innovation** and modernisation;”

Trans-Pacific Strategic Economic Partnership⁶¹ (in force since 28 May 2006):

“CHAPTER 10 INTELLECTUAL PROPERTY

(...) Article 10.2: Intellectual Property Principles

1. The Parties recognise the importance of intellectual property in promoting economic and social development, particularly in the new digital economy, **technological innovation** and trade.”

- (ii) as if “technology” were a tool to promote “innovation”. For instance, as seen in the provision below:

China – Costa Rica RTA (in force since 01 Aug. 2011):

“Chapter 10 Intellectual Property

Article 113: Technical **Innovation** and Transfer of **Technology**

1. The Parties recognize the importance of **technology** and knowledge transfer as a tool to promote **innovation** and creative works in order to achieve economic growth.”

- (iii) as two different things, as if “technology” was not necessarily viewed as “innovation” (though they could be from related areas). For instance, in the following provisions:

⁶⁰ According to the WTO RTAs Database, the signatories parties from Central America are: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

⁶¹ According to the WTO RTAs Database, this agreement is comprised by the following parties: Brunei Darussalam; Chile; New Zealand; Singapore.

United States – Oman RTA (in force since 01 Jan. 2009):

“(…) Recognizing that open and competitive markets are key drivers of economic efficiency, **innovation**, and growth;

(…) Desiring to foster creativity and **innovation**, improve **technology**, and enhance the protection and enforcement of intellectual property rights;”

EU - Canada RTA (in force since 21 Sep. 2017):

“RECOGNISING the strong link between **innovation** and trade, and the importance of **innovation** to future economic growth, and affirming their commitment to encourage the expansion of cooperation in the area of **innovation**, as well as the related areas of research and development and science and **technology**, and to promote the involvement of relevant public and private sector entities; (…)”

Hence, in view of those differing perspectives concerning “technology” and “innovation” – which seems to suggest that not all mentions of technology are necessarily related to innovation –, it seems reasonable to focus the analysis henceforth in the present thesis primarily on the provisions that mention the keyword “innovation” or its variations, but at the same time acknowledging that there could be other provisions that despite not expressly mentioning the term “innovation”, still could affect innovation somehow (such as provisions on trade facilitation and customs that promote the use of technology in trade relations without expressly mentioning “innovation” in their legal text).

Thus, in the next sections, the provisions that mentioned “innovation” in the RTAs herein assessed have been categorized either by the location in the agreement (for instance, if it is mentioned in the Preamble), or by the general theme being regulated (for example, IP and cooperation). The aim is to assess the content of those provisions in an attempt to extract general patterns, distinctions, possible trends and frameworks often adopted by the countries or territories that were parties to those agreements, and also to ascertain whether the word “innovation” is being used as a result of a conscious and careful decision of the parties involved in a given agreement, or if it is one of those gap-filling or aspirational words that does not carry any particular meaning or purpose in certain contexts. The precise wording of those provisions is transcribed in **Annex B** of this thesis for ease of reference.

2.1.2.1 In the Preamble and/or Objectives of the Agreement

As mentioned, in 52 out of the 134 RTAs (i.e. approx. 39%) that contain the keyword “innovation” or its variations, such keyword is found in the Preamble and/or in the articles on the Objectives of the agreement (mainly in the Preamble). This does not mean that such agreements put forward the aforementioned keyword *solely* in the Preamble and/or in the

Objectives – there could be (and often there are) other passages in those same agreements in which the keyword is also applied.

As detailed in the Table below, the parties that included the keyword “innovation” or its variations the most in the Preamble and/or in the Objectives of the respective agreements were the US, New Zealand and Australia, closely followed by Chile, Mexico, Peru, Singapore and the EU:

Table 19: Number of RTAs by signatories with the keyword “innovation” or its variations in the Preamble and/or the Objectives of the agreements

Party	RTAs with "innovation" in the Preamble and/or the Objectives
United States	10
New Zealand	8
Australia	7
Chile	6
Mexico	6
Peru	6
Singapore	6
EU	5
Colombia	4
Costa Rica	4
Iceland	4
Liechtenstein	4
Norway	4
Switzerland	4
Central America	3
Hong Kong	3
Japan	3
Panama	3
Thailand	3
Brunei Darussalam	2
Canada	2
China	2
Indonesia	2
Korea	2
Malaysia	2
Philippines	2
United Kingdom	2
Bahrain	1
Cambodia	1
Chinese Taipei	1
Dominican Republic	1
Ecuador	1
El Salvador	1
EU Overseas Countries and Territories (OCT)	1
Georgia	1
Gulf Cooperation Council (GCC)	1
Honduras	1
Jordan	1
Kuwait	1
Lao	1
Moldova	1
Morocco	1
Myanmar	1
Oman	1
Pacific Alliance	1

Saudi Arabia	1
Ukraine	1
United Arab Emirates	1
Uruguay	1
Viet Nam	1

Source: Author's calculation based on the information contained in the WTO RTAs Database

From the content of the said clauses, the following features could be highlighted:

- there are agreements that seem to work on the presumption that “innovation” is somehow important or relevant to society, and thus include in the Preamble and/or Objectives a shared commitment to foster/promote/stimulate/incentivize “innovation” without any previous acknowledgment of the importance of “innovation”. In contrast, there are other agreements that include such an express acknowledgment in the Preamble;
- “innovation” is often tied to:
 - “*creativity*”, as two things to be fostered by the parties of an agreement, as in the Australia – Chile RTA⁶², the US – Australia RTA⁶³, the US – Chile RTA⁶⁴ and the US – Colombia RTA⁶⁵;
 - “*technology*” (as in “*technological innovation*”), as in the Costa Rica – China RTA⁶⁶ and in the EU – Central America RTA⁶⁷;
 - “*intellectual property*” – especially in the RTAs signed with EFTA, in which the following phrase was echoed in all agreements: “*RESOLVED to foster creativity and innovation by protecting intellectual property rights (...)*”, indicating the view of “innovation” as a goal, and the protection of IP rights as a means to achieve that goal;

⁶² “(...) resolved to: (...) FOSTER **creativity** and **innovation** and promote stronger links between dynamic sectors of their economies;”. In force since 09 mar. 2009.

⁶³ “(...) FOSTER **creativity** and **innovation** and promote stronger links between dynamic sectors of their economies;”. In force since 01 jan. 2005.

⁶⁴ “(...) resolved to: (...) FOSTER **creativity** and **innovation**, and promote trade in goods and services that are the subject of intellectual property rights;”. In force since 01 jan. 2004.

⁶⁵ “resolved to: (...) FOSTER **creativity** and **innovation** and promote trade in the **innovative** sectors of our economies; (...)”. In force since 15 may 2012.

⁶⁶ “Chapter 1 Initial Provisions

(...) Article 2: Objectives. 1. The objectives of this Agreement are to: (...) (e) ensure an adequate and effective protection of intellectual property rights in the territories of the Parties, taking into consideration the economic situation and the social or cultural need of each Party; as well as to promote **technological innovation** and the transfer and dissemination of **technology** between the Parties;”. In force since 01 aug. 2011.

⁶⁷ “CONVINCED that this Agreement will create a climate conducive to growth in sustainable economic relations between them, more particularly in the trade and investment sectors which are essential to the realisation of the economic and social development and **technological innovation** and modernisation;”. In force since 01 aug. 2013.

- “*competitiveness*”, as in the ASEAN – Hong Kong RTA⁶⁸, and in the Chile – Colombia RTA⁶⁹;
- “*economic efficiency*” and “*wealth creation*”, altogether as objectives of which “*open and competitive markets are the key drivers of*”, as set forth in the US – Singapore RTA⁷⁰, and in the Costa Rica – Singapore RTA⁷¹ (thus indicating that this excerpt could have been proposed by the Singaporean side, as it is the common party to both agreements). A variation of that wording can be found in the Australia – Indonesia RTA, in the Australia – Thailand RTA, in the New Zealand – Chinese Taipei RTA, the New Zealand – Hong Kong RTA, the New Zealand – Singapore RTA and in the New Zealand – Thailand RTA (which all state that “*open, transparent and competitive markets are key drivers of*” innovation);
- “innovation” is sometimes portrayed as **an objective**, a goal to be achieved (such as in the Australia – Chile RTA⁷²), and sometimes as **a tool or the means to achieve another goal**, as in the EU – Canada RTA⁷³ – in which innovation is presented as a tool to future economic growth.

⁶⁸ “Article 1. Objectives. (...) 2. The economic and technical co-operation under this Chapter shall aim, inter alia, at: (...) (b) creating new opportunities for trade and investment and promoting **competitiveness** and **innovation** through the involvement, where appropriate, of the private sector including the small and medium enterprises (SMEs) by, inter alia, facilitating the integration of SMEs into Global Value Chains, and encouraging SMEs to organise or participate in trade promotion events;”. In force since 10 feb. 2021.

⁶⁹ “Capítulo 1 Disposiciones Iniciales. (...) Artículo 1.2: Objetivos. 1. Los objetivos de este Acuerdo son los siguientes: (...) (g) promover entre las Partes la cooperación destinada a obtener el más amplio provecho de las oportunidades de desarrollo y crecimiento que proporciona este Acuerdo, con especial énfasis en la **innovación** y la **competitividad**;”. In force since 08 may 2009.

⁷⁰ “(...) Recognizing that open and competitive markets are the key drivers of **economic efficiency**, **innovation** and **wealth creation**;”. In force since 01 jan. 2014.

⁷¹ “Resolving to create an expanded and secure market for the goods and services produced in their territories and conscious that open, transparent and competitive markets are the key drivers of **economic efficiency**, **innovation**, **wealth creation** and consumer welfare;”. In force since 01 jul. 2013.

⁷² “Chapter 18 – Cooperation. (...) Article 18.1: General Objectives. (...) 2. The Parties will establish close cooperation aimed inter alia at: (...) (b) creating new opportunities for trade and investment, and for promoting competitiveness, fostering **innovation** and encouraging research and development;”. In force since 09 march 2009.

⁷³ “RECOGNISING the strong link between **innovation** and trade, and the importance of **innovation** to future economic growth, and affirming their commitment to encourage the expansion of cooperation in the area of **innovation**, as well as the related areas of research and development and science and technology, and to promote the involvement of relevant public and private sector entities; (...)”. In force since 21 sep. 2017.

- there are some agreements that put forward the aim to promote trade in “*innovative sectors*”, such as the Costa Rica – Colombia RTA⁷⁴, the Mexico – Peru RTA⁷⁵, the Panama – Peru RTA⁷⁶ and the Peru – Honduras RTA⁷⁷;
- as seen previously, there are some phrases that are found *ipsis litteris* in several agreements with different parties (such as “*to foster creativity and innovation*”), which could be the result of the use by different parties of the framework of agreements between other parties as a source of inspiration and reference.

2.1.2.2 In IP provisions

In 60 out of the 134 RTAs (i.e. approx. 45%) that contain the keyword “innovation” or its variations, such keyword is found in a Chapter, Section and/or provision dedicated to Intellectual Property.

It is noteworthy that there are more RTAs that mentioned such keyword in IP provisions rather than RTAs that include it in the Preamble and and/or in the articles on the Objectives of the agreement (just for reference, 52 out of 134 RTAs contained the said keyword in the Preamble/the Objectives). This could suggest that there seems to be a widespread understanding amongst the countries that IP and innovation are somehow connected, in different ways.

Proceeding to a breakdown by country, as indicated in the Table below, the parties that included the keyword “innovation” or its variations the most in IP Chapters, Sections and/or provisions were the EU, closely followed by Peru, New Zealand, China, Costa Rica, Japan and Singapore:

Table 20: Number of RTAs by signatories with the keyword “innovation” or its variations in Chapters, Sections or Provisions on IP

Party	RTAs with "innovation" in IP Chapters, Sections or Provisions
EU	11
Peru	10
New Zealand	8
China	7
Costa Rica	6
Japan	6
Singapore	6

⁷⁴ “(...) decididos a: (...) ESTIMULAR la creatividad e innovación y promover el comercio en los **sectores innovadores** de sus economías; (...)”. In force since 01 aug. 2016.

⁷⁵ “(...) decididos a: (...) PROMOVER el comercio en los **sectores innovadores** de nuestras economías; y”. In force since 01 feb. 2012.

⁷⁶ “(...) decididos a: (...) ESTIMULAR la creatividad e **innovación** y promover el comercio en los **sectores innovadores** de sus economías;”. In force since 01 may 2012.

⁷⁷ “(...) decididos a: (...) ESTIMULAR la creatividad e **innovación** y promover el comercio en los **sectores innovadores** de sus economías; (...)”. In force since 01 jan. 2017.

Australia	5
Chile	5
Colombia	5
United Kingdom	5
United States	5
Canada	4
Georgia	4
Korea	4
Malaysia	4
Viet Nam	4
Brunei Darussalam	3
Dominican Republic	3
Honduras	3
Hong Kong	3
Iceland	3
Mexico	3
Panama	3
Thailand	3
Türkiye	3
Ukraine	3
Antigua and Barbuda	2
Armenia	2
Bahamas	2
Barbados	2
Belize	2
Dominica	2
El Salvador	2
Grenada	2
Guatemala	2
Guyana	2
Jamaica	2
Liechtenstein	2
Moldova	2
Nicaragua	2
Norway	2
Saint Kitts and Nevis	2
Saint Lucia	2
Saint Vincent and the Grenadines	2
Suriname	2
Switzerland	2
Trinidad and Tobago	2
United Arab Emirates	2
Bahrain	1
Belarus	1
Cambodia	1
Chinese Taipei	1
Ecuador	1
Haiti	1
India	1
Indonesia	1
Israel	1
Kazakhstan	1
Kuwait	1
Kyrgyz Republic	1
Lao	1
Mongolia	1
Myanmar	1
Oman	1
Pakistan	1
Philippines	1
Qatar	1
Russian Federation	1
Saudi Arabia	1

Source: Author's calculation based on the information contained in the WTO RTAs Database

Looking at the content of the provisions, the following features stand out:

- even within a Chapter or a Section on IP from the numerous agreements, “innovation” comes up in different forms and places:
 - In provisions on cooperation commitments, such as in the ASEAN – Australia – New Zealand RTA, the Chile – China RTA and in the Canada – Israel RTA;
 - In provisions on the purpose of the Chapter and the principles that should be observed, such as in the Australia – China RTA, the Australia – Hong Kong RTA, and the Costa Rica – Singapore RTA;
 - In provisions acknowledging the importance of promoting research, technological development and innovation, such as in the Colombia – EFTA RTA.
 - In provisions on measures related to Biodiversity, such as in the Colombia – EFTA RTA, the Colombia – Costa Rica RTA, the Costa Rica – Peru RTA, the EU – Colombia, Ecuador and Peru RTA, the Peru – EFTA, the Peru – Honduras RTA and the Peru – Panama RTA;
 - In provisions on Genetic Resources, Traditional Knowledge and Folklore, such as in the China – Costa Rica RTA;
 - In provisions on Technical Innovation and Transfer of Technology, such as in the China – Costa Rica RTA, the Colombia – EFTA RTA and the Colombia – Costa Rica RTA;
 - In a whole section dedicated to “innovation”, such as in the EU – CARIFORUM States RTA and in the UK – CARIFORUM States RTA.
- there are several agreements that provide for a commitment to cooperate on “*educational and dissemination projects on the use of intellectual property as a research and innovation tool*” – nonetheless, “*subject to the availability of appropriated funds*”. That is the case of the Chile – China RTA, the China – Costa Rica RTA, the China – New Zealand RTA, the Dominican Republic - Central America⁷⁸ - United States FTA (CAFTA-DR) and the US – Chile RTA.

It is worth mentioning that, as argued by GUTIERREZ and MEIER-EWERT (2022), most of the IP chapters in RTAs reaffirm the importance of multilateral IP treaties, exhorting

⁷⁸ According to the WTO RTAs Database, “Central America” in this specific case refers to: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua.

compliance with them, or specifically recognize their precedent over the RTA rules. Whenever the RTA IP chapters venture beyond general affirmations, according to those authors, it is to regulate IP areas or issues outside the scope of the multilateral rules, or where those rules provide discretion for national implementation.⁷⁹

2.1.2.3 In Cooperation provisions

In 86 out of the 134 RTAs (i.e. approx. 64%) that contain the keyword “innovation” or its variations, such keyword is found in a Chapter, Section and/or provision on Cooperation.

It means that the keyword “innovation” and its variations come up more frequently in Chapters, Sections and/or provisions on Cooperation than on the Preamble/Objectives (in 39% of the RTAs) or on the items on IP (in 45% of the RTAs).

Breaking down those mentions by country, as indicated in the Table below, the parties that included the keyword “innovation” or its variations the most in Cooperation Chapters, Sections and/or provisions were the EU (by far), followed by Singapore, Chile, China, Peru, the UK and Colombia:

Table 21: Number of RTAs by signatories with the keyword “innovation” or its variations in Chapters, Sections or Provisions on Cooperation

Party	RTAs with "innovation" in Cooperation Chapters, Sections or Provisions
EU	22
Singapore	11
Chile	10
China	10
Peru	10
United Kingdom	10
Colombia	9
Australia	8
Canada	8
Malaysia	6
Costa Rica	5
Japan	5
Korea	5
Ecuador	4
El Salvador	4
Iceland	4
New Zealand	4
Panama	4
Switzerland	4
Viet Nam	4

⁷⁹ GUTIERREZ, Jorge; MEIER-EWERT, Wolf R. Intellectual Property and Digital Trade – Mapping International Regulatory Responses to Emerging Issues. In: TAUBMAN, Antony (ed.); WATAL, Jayashree. Trade in Knowledge: Intellectual Property, Trade and Development in a Transformed Global Economy, Cambridge University Press, p. 137, 2022.

Brunei Darussalam	3
Honduras	3
India	3
Liechtenstein	3
Norway	3
South Africa	3
Ukraine	3
Antigua and Barbuda	2
Bahamas	2
Barbados	2
Belize	2
Botwana	2
Dominica	2
Dominican Republic	2
Eswatini	2
Georgia	2
Grenada	2
Guyana	2
Indonesia	2
Israel	2
Jamaica	2
Lesotho	2
Mexico	2
Moldova	2
Mozambique	2
Namibia	2
Saint Kitts and Nevis	2
Saint Lucia	2
Saint Vincent and the Grenadines	2
Suriname	2
Thailand	2
Trinidad and Tobago	2
Türkiye	2
United States	2
Algeria	1
Armenia	1
Bolivia	1
Cambodia	1
Cameroon	1
Chinese Taipei	1
Cuba	1
Eastern and Southern Africa States	1
Egypt	1
EU Overseas Countries and Territories (OCT)	1
Guatemala	1
Haiti	1
Hong Kong	1
Jordan	1
Kenya	1
Kyrgyz Republic	1
Lao	1
Lebanon	1
Macao	1
Mauritius	1
Mongolia	1
Morocco	1
Myanmar	1
Nicaragua	1
Palestine	1
Philippines	1
Seychelles	1
Tunisia	1
United Arab Emirates	1
Venezuela	1

Zimbabwe	1
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Source: Author's calculation based on the information contained in the WTO RTAs Database

In terms of the content of those provisions, it could be noted that there is a myriad of areas in which cooperation commitments are provided for regarding innovation, such as in science and information technology, in culture exchanges, organized crime, social aspects, intellectual property, SMEs, industrial development, financial services, education, environmental protection, agriculture, amongst others.

2.1.2.4 In electronic commerce and/or digital trade provisions

In 13 out of the 134 RTAs (i.e. approx. 8%) that contain the keyword “innovation” or its variations, such keyword is found in a Chapter, Section and/or provision on Electronic Commerce (E-commerce) and/or digital trade. Thus, it is not as recurring as in the Cooperation and IP Chapters, and in the Preamble/Objectives of the agreements.

Breaking down those mentions by country, as indicated in the Table below, the parties that included the keyword “innovation” or its variations the most in E-commerce Chapters, Sections and/or provisions were Canada (by far), Colombia and Mexico:

Table 22: Number of RTAs by signatories with the keyword “innovation” or its variations in Chapters, Sections or Provisions on digital trade or e-commerce

Party	RTAs with "innovation" in E-commerce or digital trade Chapters, Sections or Provisions
Canada	7
Colombia	3
Mexico	3
New Zealand	2
Panama	2
Peru	2
Chile	1
Chinese Taipei	1
Costa Rica	1
EU	1
Honduras	1
Hong Kong	1
India	1
Korea	1
United Arab Emirates	1
United States	1

Source: Author's calculation based on the information contained in the WTO RTAs Database

From the outset, it could be noted that:

- the provisions on e-commerce that mention “innovation” are relatively recent (the first agreement that entered into force dates from 2009);

- some of the agreements mention “innovation” altogether with “interoperability” and “competition”, as ways to facilitate electronic commerce – specially the agreements signed by Canada with various parties⁸⁰.

2.1.2.5 In environmental provisions

In 25 out of the 134 RTAs (i.e. approx. 18,6%) that contain the keyword “innovation” or its variations, such keyword is found in a Chapter, Section and/or provision on environmental issues.

Breaking down those mentions by country, as indicated in the Table below, the parties that included the keyword “innovation” or its variations the most in Chapters, Sections and/or provisions on environmental issues were the US, the EU, Peru, Colombia and Costa Rica:

Table 23: Number of RTAs by signatories with the keyword “innovation” or its variations in environmental Chapters, Sections or Provisions

Party	RTAs with "innovation" in Environmental Chapters, Sections or Provisions
United States	8
EU	6
Peru	6
Colombia	4
Costa Rica	4
Honduras	3
Panama	3
United Kingdom	3
Canada	2
Chile	2
Dominican Republic	2
El Salvador	2
Guatemala	2
Iceland	2
Korea	2
Liechtenstein	2
Mauritius	2
Mexico	2
Moldova	2
Nicaragua	2
Norway	2
Seychelles	2
Switzerland	2
Zimbabwe	2
Antigua and Barbuda	1
Armenia	1
Australia	1

⁸⁰ For instance, see the Canada – Colombia RTA (in force since 15 aug. 2011), which sets forth the following: “Chapter Fifteen - Electronic Commerce. (...) Article 1502: General Provisions (...) 2. Considering the potential of electronic commerce as a social and economic development tool, the Parties recognize the importance of: (...) (c) interoperability, **innovation** and competition in facilitating electronic commerce;”.

Bahamas	1
Bahrain	1
Barbados	1
Belize	1
Brunei Darussalam	1
Dominica	1
Ecuador	1
Grenada	1
Guyana	1
Haiti	1
Jamaica	1
Japan	1
Kenya	1
Malaysia	1
Morocco	1
New Zealand	1
Oman	1
Saint Kitts and Nevis	1
Saint Lucia	1
Saint Vincent and the Grenadines	1
Singapore	1
Suriname	1
Trinidad and Tobago	1
Viet Nam	1

Source: Author's calculation based on the information contained in the WTO RTAs Database

In terms of the content of the provisions, a few comments could be highlighted:

- Most of the provisions provide for cooperation commitments, and/or the acknowledgment of the importance of innovation and/or of innovative approaches to address environmental issues, without delving into the specifics of such approaches.
- An interesting term was used in the EU – CARIFORUM States RTA (2008) (though with no specific definition): the term “**eco-innovation**”⁸¹, which was later on used by the EU in RTAs signed with other parties as well, such as Moldova (2014) and Armenia (2018).

2.1.2.6 In provisions on development or sustainable development

In 20 out of the 134 RTAs (i.e. approx. 15%) that contain the keyword “innovation” or its variations, such keyword is found in a Chapter, Section and/or provision on development or sustainable development.

⁸¹ For instance, in the following provision from the EU – CARIFORUM RTA (in force since 29 dec. 2008):

“Article 138 – Cooperation on **eco-innovation** and renewable energy

1. With a view to achieving sustainable development and in order to help maximise any positive and prevent any negative environmental impacts resulting from this Agreement, the Parties recognise the importance of fostering forms of **innovation** that benefit the environment in all sectors of their economy. Such forms of **eco-innovation** include energy efficiency and renewable sources of energy.

2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas: (...) (c) promotion of **eco-innovation** networks and clusters, including through public-private partnerships;”.

Breaking down those mentions by country, as indicated in the Table below, the parties that included the keyword “innovation” or its variations the most in Chapters, Sections and/or provisions on development or sustainable development were the EU (by far), followed by Chile, Australia, Malaysia, Peru and the UK:

Table 24: Number of RTAs by signatories with the keyword “innovation” or its variations in Chapters, Sections or Provisions on Development or Sustainable Development

Party	RTAs with "innovation" in Chapters, Sections or Provisions on Development
EU	9
Chile	4
Australia	3
Malaysia	3
Peru	3
United Kingdom	3
Colombia	2
Georgia	2
Korea	2
Moldova	2
Türkiye	2
Ukraine	2
Viet Nam	2
Antigua and Barbuda	1
Armenia	1
Bahamas	1
Barbados	1
Belize	1
Brunei Darussalam	1
Canada	1
Costa Rica	1
Dominica	1
Dominican Republic	1
Ecuador	1
El Salvador	1
Grenada	1
Guatemala	1
Guyana	1
Haiti	1
Honduras	1
Iceland	1
Jamaica	1
Japan	1
Liechtenstein	1
Mexico	1
New Zealand	1
Nicaragua	1
Norway	1
Panama	1
Saint Kitts and Nevis	1
Saint Lucia	1
Saint Vincent and the Grenadines	1
Serbia	1
Singapore	1
Suriname	1
Switzerland	1
Trinidad and Tobago	1

Source: Author’s calculation based on the information contained in the WTO RTAs Database

2.1.2.7 In provisions on trade barriers

In 3 out of the 134 RTAs (i.e. approx. 2,2%) that contain the keyword “innovation” or its variations, such keyword is found in a Chapter, Section and/or provision on trade barriers.

Breaking down those mentions by country, as indicated in the Table below, the party that included the keyword “innovation” or its variations the most in Chapters, Sections and/or provisions on trade barriers was Singapore (in 2 RTAs). Other parties that included such provisions in its agreements were the EU, Korea, Türkiye and the US:

Table 25: Number of RTAs by signatories with the keyword “innovation” or its variations in Chapters, Sections or Provisions on Trade Barriers

Party	RTAs with "innovation" in Chapters, Sections or Provisions on Trade barriers
Singapore	2
EU	1
Korea	1
Türkiye	1
United States	1

Source: Author’s calculation based on the information contained in the WTO RTAs Database

The said provisions are found in relatively recent agreements – the oldest was entered into force in 2012. Regarding their content, it is interesting to note that:

- In the Korea – US RTA, the promotion of innovation “*through market incentives and goal-based approaches*” was brought up as one of the practices that reflect “*good regulatory practice*”⁸².
- In both agreements involving Singapore at hand (with Türkiye and with the EU), the provision on innovation was found in an Annex on Electronics. The content of the provisions seems to be in favor of the interests of innovators, specially from the private sector – as it aims at preventing the States from unduly delaying the placing on their markets of a product “*on the ground that it incorporates a new technology or a new feature which has not yet been regulated*”, as well as it provides for the right of the importing party “*to require evidence that the new technology or new feature concerned does not create a risk for safety or EMC or any other legitimate objective as listed in*

⁸² More specifically, in the following provision:
 “CHAPTER NINE TECHNICAL BARRIERS TO TRADE
 (...) ARTICLE 9.10: DEFINITIONS

For purposes of this Chapter: (...) good regulatory practice means a practice that: (...) (v) promotes **innovation** through market incentives and goal-based approaches; (...).”

Article 2.2 of the TBT Agreement⁸³ “if it demonstrates duly substantiated concerns to the supplier”.

2.1.2.8 In provisions on the medical and pharmaceutical field

In 6 out of the 134 RTAs (i.e. approx. 4,4%) that contain the keyword “innovation” or its variations, such keyword is found in a Chapter, Section and/or provision on issues related to the medical and pharmaceutical field.

Breaking down those mentions by country, as indicated in the Table below, the party that included the keyword “innovation” or its variations the most in Chapters, Sections and/or provisions on issues related to the medical and pharmaceutical field was Korea. Other parties that included such provisions on its trade agreements more than once were Australia, the EU, Singapore and the US:

Table 26: Number of RTAs by signatories with the keyword “innovation” or its variations in Chapters, Sections or Provisions on the Medical and Pharmaceutical fields

Party	RTAs with "innovation" in Chapters, Sections or Provisions on the Medical and Pharmaceutical field
Korea	3
Australia	2
EU	2
Singapore	2
United States	2
Brunei Darussalam	1
Canada	1
Chile	1
Japan	1
Malaysia	1
Mexico	1
New Zealand	1
Peru	1
United Kingdom	1
Viet Nam	1

Source: Author’s calculation based on the information contained in the WTO RTAs Database

⁸³ Cf. TBT, art. 2.2: “Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. For this purpose, technical regulations shall not be more trade-restrictive than necessary to fulfil a legitimate objective, taking account of the risks non-fulfilment would create. Such legitimate objectives are, inter alia: national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. In assessing such risks, relevant elements of consideration are, inter alia: available scientific and technical information, related processing technology or intended end-uses of products.”

Concerning the content of those provisions, it is noteworthy that:

- almost all of them acknowledge the importance of research and development in the pharmaceutical and/or medical industry, as well as of innovative pharmaceutical and/or medical products for delivering high quality health care;
- most of them stress the importance of “*appropriate*” government support, and specify that it could be “*through intellectual property protection and other policies*” (as in the US – Australia RTA), or through “*academic and commercial research and development, intellectual property protection and other incentives for innovation in the research and development of pharmaceutical products and medical devices*” (as in the EU – Korea RTA);
- most of the provisions at hand also acknowledge the need to promote access to innovation and to innovative medical and pharmaceutical products, in a “*timely and affordable*” manner. That could be done “*through transparent, expeditious, and accountable procedures, without impeding a Party’s ability to apply appropriate standards of quality, safety, and efficacy*”, as provide for in the US – Australia RTA, the EU – Korea RTA, the Korea – US RTA, the EU – Singapore RTA and the UK – Korea RTA.

2.1.2.9 In provisions on SMEs

In 10 out of the 134 RTAs (i.e. approx. 7,4%) that contain the keyword “innovation” or its variations, such keyword is found in a Chapter, Section and/or provision on SMEs.

Breaking down those mentions by country, as indicated in the Table below, the party that included the keyword “innovation” or its variations the most in Chapters, Sections and/or provisions on SMEs was the EU. Other parties that included the abovementioned keyword in such provisions more than once were Chile, China, Mauritius, Peru, Seychelles and Zimbabwe⁸⁴:

⁸⁴ Mauritius, Seychelles and Zimbabwe appeared therein as parties to the Southern Africa States.

Table 27: Number of RTAs by signatories with the keyword “innovation” or its variations in Chapters, Sections or Provisions on SMEs

Party	RTAs with "innovation" inl Chapters, Sections or Provisions on SMEs
EU	4
Chile	2
China	2
Mauritius	2
Peru	2
Seychelles	2
Zimbabwe	2
Australia	1
Costa Rica	1
El Salvador	1
Guatemala	1
Honduras	1
Japan	1
Malaysia	1
Mongolia	1
Nicaragua	1
Palestine	1
Panama	1
Türkiye	1
United Kingdom	1

Source: Author’s calculation based on the information contained in the WTO RTAs Database

2.1.2.10 *In provisions on social aspects or issues*

In 5 out of the 134 RTAs (i.e. approx. 3,7%) that contain the keyword “innovation” or its variations, such keyword is found in a Chapter, Section and/or provision on social aspects or issues.

Breaking down those mentions by parties, as indicated in the Table below, those that included the keyword “innovation” or its variations the most in Chapters, Sections and/or provisions on social aspects or issues were the CARIFORUM States and the EU:

Table 28: Number of RTAs by signatories with the keyword “innovation” or its variations in Chapters, Sections or Provisions on social aspects or issues

Party	RTAs with "innovation" in Chapters, Sections or Provisions on Social aspects/issues
Antigua and Barbuda	2
Bahamas	2
Barbados	2
Belize	2
Dominica	2
Dominican Republic	2
EU	2
Grenada	2
Guyana	2
Haiti	2
Jamaica	2
Saint Kitts and Nevis	2
Saint Lucia	2
Saint Vincent and the Grenadines	2
Suriname	2
Trinidad and Tobago	2
Canada	1
EU Overseas Countries and Territories (OCT)	1
Israel	1
United Kingdom	1

Source: Author’s calculation based on the information contained in the WTO RTAs Database

2.1.2.11 In provisions on subsidies

As seen below, only one of the RTAs – between the EU and Vietnam (which is one of the most recent RTAs notified by the EU to the WTO, apart from the RTA between the EU and the UK) – mentions “innovation” in a provision on subsidies. Such provision is in fact located in a Chapter on “Competition policy”, and lists “innovation” as one of the purposes that would justify granting subsidies, if it is “*clearly defined*”:

EU – Vietnam RTA (in force since 01 Aug. 2020):

“CHAPTER 10 Competition policy

(...)

Section B

Subsidies

Article 10.4

Principles

(...) 2. An illustrative list of public policy objectives for which a Party may grant subsidies, subject to the conditions set out in this Section, includes the following:

(...) (d) facilitating the development of certain economic activities or of certain economic areas, including but not limited to, subsidies for clearly defined research, development and **innovation** purposes, subsidies for training or for the creation of employment, subsidies for environmental purposes, subsidies in favour of small and medium-sized enterprises as defined in the Parties' respective legislations; and (...)

2.1.2.12 *In stand-alone provisions, sections or chapters*

Two RTAs – both signed by the CARIFORUM States – put forward a specific section dedicated to innovation: one signed with the EU (in force since 2008), and another signed with the UK (in force since 2021, after Brexit). In both cases, the Section on innovation is contained in a Chapter on “*Innovation and intellectual property*”, and their content is practically the same (with the exception of a few mentions to internal organs/communities of the EU, that were then replaced by mentions to the analogous UK organs).

The fact that such Section is found only in trade agreements with the CARIFORUM States, and that such provisions were not later echoed in other agreements signed by the EU with other parties suggests that it most likely came from a proposal by the CARIFORUM States rather than from the EU.

As highlighted in the excerpt below on the EU-CARIFORUM States RTA, the aforementioned Section was “*truly original*”, being the first time such provisions are adopted in an agreement liberalizing trade from a development perspective:

“The C-EPA (...) also goes further, for instance, by leaving behind the traditional focus on protection of intellectual property rights and developing a truly original chapter on the promotion of innovation, focusing on technology transfer, the development of innovation systems in the Caribbean, the development of technological capabilities and the protection of Caribbean traditional knowledge and genetic resources. All of these provisions are adopted in the C-EPA for the first time in an agreement liberalizing trade from a development perspective.”⁸⁵

Despite the novelty of such Section, by assessing its content it is noteworthy that it focuses on cooperation efforts between the parties, especially for the benefit of the development of the CARIFORUM States – which are composed by heterogeneous countries in terms of their development level – such as a country that is recognized as LDC (Haiti), as well countries that are classified by the World Bank as upper middle income (such as Belize, Dominica, Dominican Republic, Grenada, Guyana, Jamaica, Suriname) and high income (such as Antigua and Barbuda, Barbados, Bahamas and Trinidad and Tobago).

The selected excerpts of the RTAs abovementioned are transcribed below for ease of reference, in chronological order by date of entry into force.

⁸⁵ ZAMPETTI, Americo B.; JUNIOR, Lodge. The CARIFORUM-EU Economic partnership agreement: A practitioner’ analysis. Alphen aan den Rijn: Wolters Kluwer Law & Business, p. 17, 2011.

EU-CARIFORUM States RTA (in force since 29 Dec. 2008):

“CHAPTER 2

Innovation and intellectual property

(...)

Section 1

Innovation

Article 133

Regional integration

The Parties recognise that measures and policies to be taken at the regional level are necessary to fully attain the objectives of this Section. The CARIFORUM States agree to increase action at the regional level with a view to providing enterprises with a regulatory and policy framework conducive to fostering competitiveness through innovation and creativity.

Article 135

Cooperation in the area of competitiveness and innovation

1. The Parties recognise that the promotion of creativity and innovation is essential for the development of entrepreneurship and competitiveness and the achievement of the overall objectives of this Agreement.

2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:

(a) promotion of innovation, diversification, modernisation, development and product and process quality in businesses;

(...)

(f) promotion of partnerships for research and development activities in the CARIFORUM States in order to improve their innovation systems; and

(g) intensification of activities to promote linkages, innovation and technology transfer between CARIFORUM and European Community partners.

Article 136

Cooperation on science and technology

1. The Parties will foster the participation of their research and technological development bodies in the cooperation activities in compliance with their internal rules. Cooperative activities may take the following forms:

(...) (j) participation in the Knowledge and Innovation Communities of the European Institute of Innovation and Technology.

Article 137

Cooperation on information society and information and communication technologies

1. The Parties recognise that information and communications technologies (ICT) are key sectors in a modern society and are of vital importance to foster creativity, innovation and competitiveness, as well as the smooth transition to the information society.

Article 138

Cooperation on eco-innovation and renewable energy

1. With a view to achieving sustainable development and in order to help maximise any positive and prevent any negative environmental impacts resulting from this Agreement, the Parties recognise the importance of fostering forms of innovation that benefit the environment in all sectors of their economy. Such forms of eco-innovation include energy efficiency and renewable sources of energy.

2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (c) promotion of eco-innovation networks and clusters, including through public-private partnerships;”

United Kingdom – CARIFORUM RTA (in force since 01 Jan. 2021):

“CHAPTER 2 Innovation and intellectual property

(...)

Section 1

Innovation

Article 133

Regional integration

The Parties recognise that measures and policies to be taken at the regional level are necessary to fully attain the objectives of this Section. The CARIFORUM States agree to increase action at the regional level with a view to providing enterprises with a regulatory and policy framework conducive to fostering competitiveness through innovation and creativity.

(...)

Article 135

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1. The Parties recognise that the promotion of creativity and innovation is essential for the development of entrepreneurship and competitiveness and the achievement of the overall objectives of this Agreement.

2. Subject to the provisions of Articles 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:

(a) promotion of innovation, diversification, modernisation, development and product and process quality in businesses;

(...) (e) promotion of partnerships for research and development activities in the CARIFORUM States in order to improve their innovation systems; and

(f) intensification of activities to promote linkages, innovation and technology transfer between CARIFORUM and the United Kingdom partners.

Article 136

Cooperation on science and technology

1. The Parties will foster the participation of their research and technological development bodies in the cooperation activities in compliance with their internal rules. Cooperative activities may take the following forms:

(...) (j) participation in the knowledge and innovation communities of the United Kingdom.

Article 137

Cooperation on information society and information and communication technologies

1. The Parties recognise that information and communications technologies (‘ICT’) are key sectors in a modern society and are of vital importance to foster creativity, innovation and competitiveness, as well as the smooth transition to the information society. (...)

Article 138

Cooperation on eco-innovation and renewable energy

1. With a view to achieving sustainable development and in order to help maximise any positive and prevent any negative environmental impacts resulting from this Agreement, the Parties recognise the importance of fostering forms of innovation that benefit the environment in all sectors of their economy. Such forms of eco-innovation include energy efficiency and renewable sources of energy.

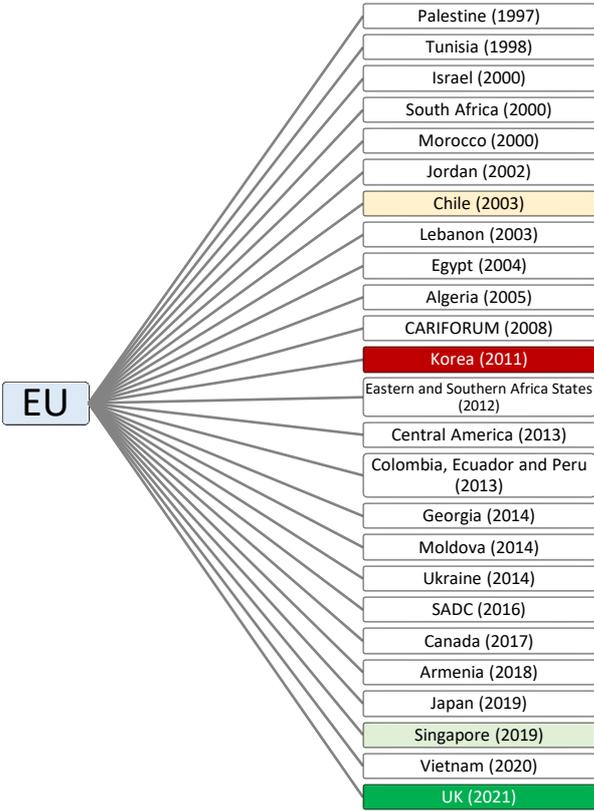
2. Subject to the provisions of Articles 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (c) promotion of eco-innovation networks and clusters, including through public-private partnerships;”

2.2 The architecture of RTAs containing provisions with the keyword “innovation” or its variations

RTAs containing the keyword “innovation” are characterized by a distinct hub-and-spoke architecture. The largest systems are grouped around the European Union (with 27 RTAs containing the keyword “innovation”), Chile and Singapore (each one of them parties to 15 RTAs with the keyword “innovation), Peru (with 14 RTAs with the said keyword), Australia, China and the US (each with 13 RTAs with the keyword “innovation). Korea, the UK, Canada and New Zealand also constitute centers of gravity, being parties to 11 (in the case of the two former) and to 10 (in the case of the two latter) RTAs with the keyword “innovation”, as illustrated in the Figures below⁸⁶, with a breakdown of the parties to those agreements.

Figure 22: EU as a hub



⁸⁶ Some of the countries are portrayed in colored boxes just to highlight those countries that may be seem as the main ‘hubs’ for RTAs containing the keyword “innovation” or its variations.

Figure 23: Chile as a hub

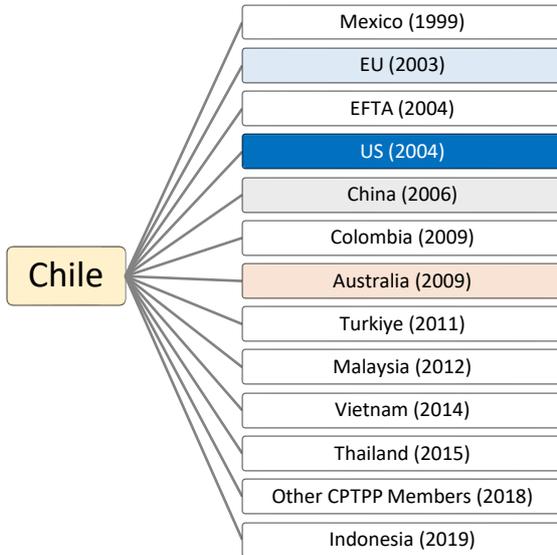


Figure 24: Singapore as a hub

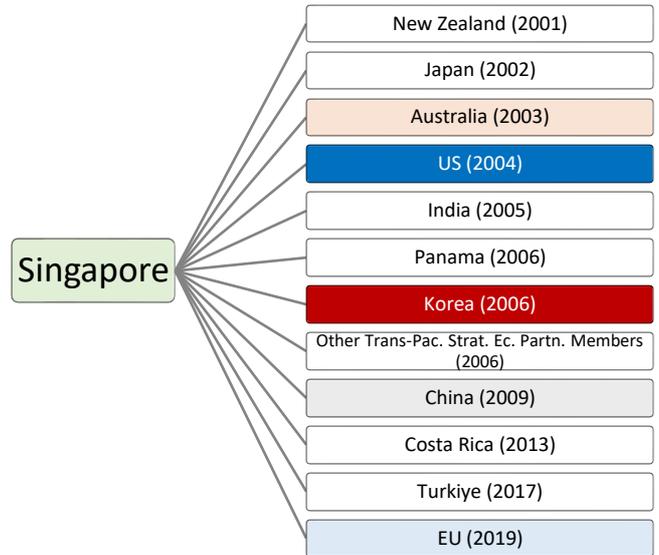


Figure 25: Peru as a hub

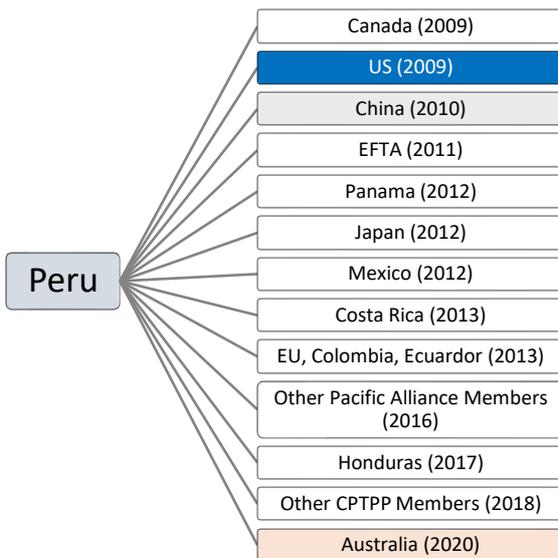


Figure 26: Australia as a hub

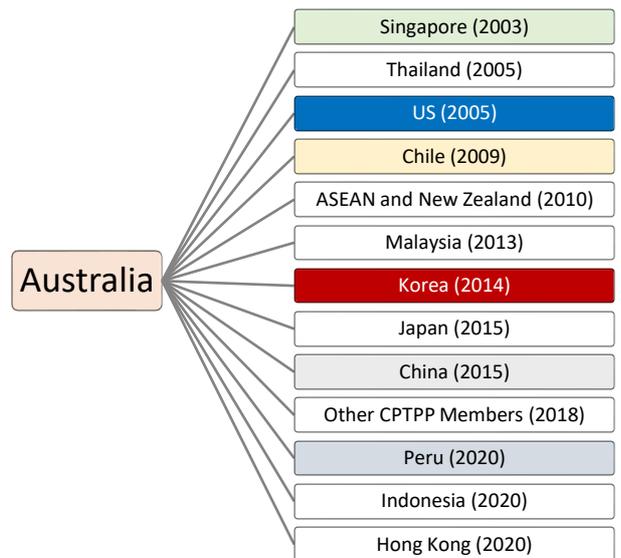


Figure 27: US as a hub

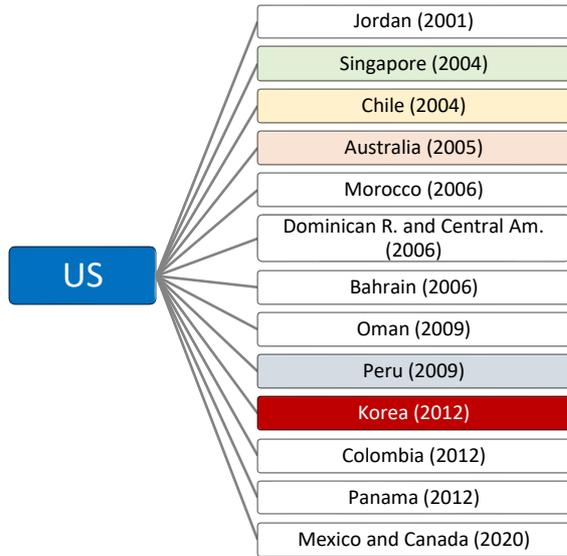


Figure 28: China as a hub

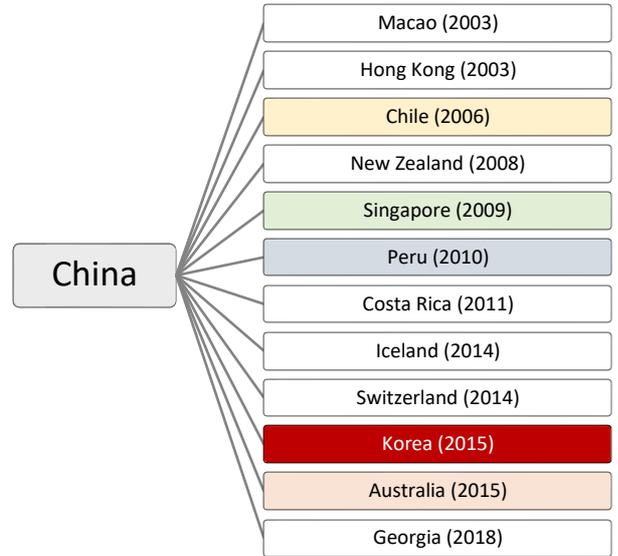


Figure 29: UK as a hub

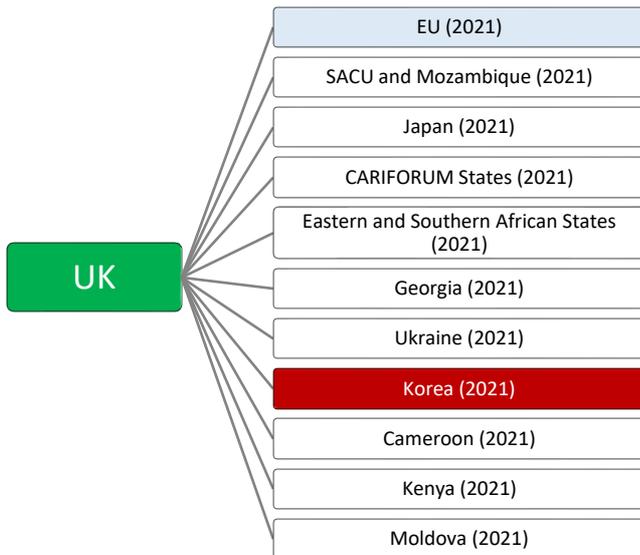
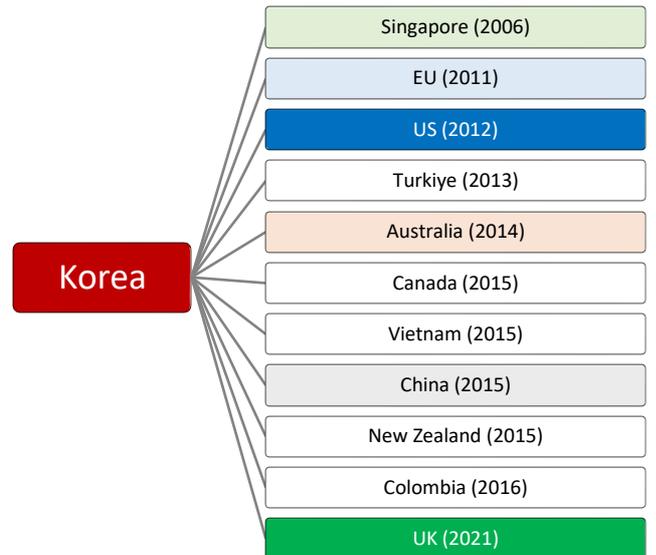


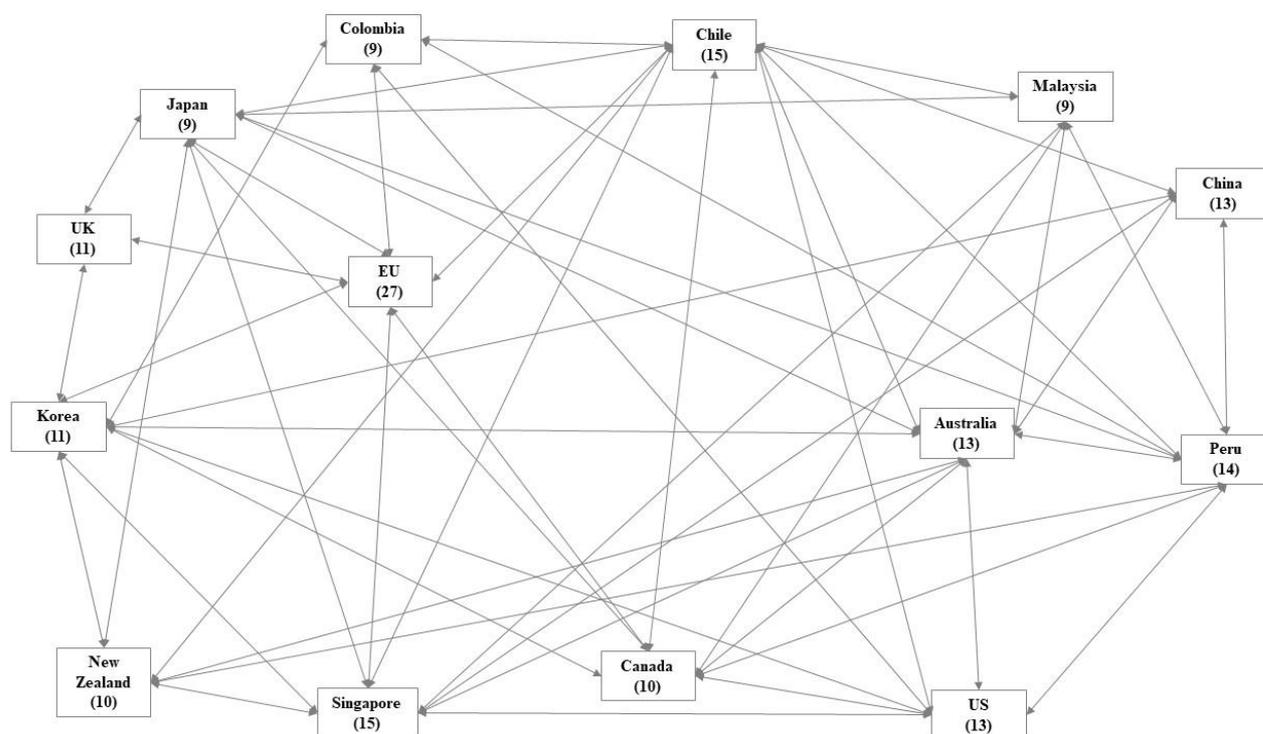
Figure 30: Korea as a hub



Source: author's elaboration.

In fact, the aforementioned 'hubs' are directly or indirectly connected through a net of bilateral or plurilateral trade agreements, resulting in a network of RTAs that contain the keyword "innovation" or its variations, as illustrated in the Figure below:

Figure 31: Simplified network of the most recurrent parties to RTAs that contain the keyword “innovation” or its variations⁸⁷



Source: author’s elaboration.

Such networks and apparent ‘hubs’ probably contributed to the replication of some provisions and/or general frameworks amongst the agreements at hand. The heavy focus on cooperation commitments related to different facets of innovation that was found mainly in the RTAs to which the EU is a party seems to have reverberated to other RTAs signed by other countries or territories. Moreover, they could also have contributed to the more recent increase in the adoption of provisions on “newer” themes that mention “innovation” in their legal texts, such as in provisions on e-commerce (being the first with the word “innovation” from 2009 – the Canada – Peru RTA) and on environmental issues (the first that mentions “innovation” entered into force in 2004 – the US – Chile RTA).

⁸⁷ The numbers below the name of the countries or blocs represent the number of RTAs to which it is a party that mention the keyword “innovation” or its variations. The present Figure only includes the countries or blocs that are parties to 9 or more RTAs that contain the abovementioned keyword, thus it does not all countries that are parties to RTAs that have that same feature.

2.3 Agreements that were not (and/or will not be) notified to the WTO RTA Database

As previously mentioned, the WTO RTA Database has its limitations and constraints, considering that it depends on the willingness of the Members to notify the agreements to the WTO Secretariat, and that it only encompasses agreements on trade on goods and/or services, with no obligation to notify agreements under the TRIPS Agreement. Therefore, in order to accomplish a more comprehensive assessment, in this section other agreements beyond the WTO RTA Database will be mentioned and analyzed as well (though not in an exhaustive manner), regarding the issue of innovation.

2.3.1 Agreements that are yet to be notified to the WTO Secretariat

The present Section will highlight some trade agreements for illustrative purposes, as there could be other agreements that are in the same stage but will not be mentioned henceforth.

The first agreement that is worth underlining is the **Regional Comprehensive Economic Partnership Agreement (RCEP)**, a regional FTA whose negotiations were launched by leaders from 10 ASEAN Member States (Brunei Darussalam, Cambodia, Indonesia, Lao, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Viet Nam) and six ASEAN FTA partners (Australia, China, India, Japan, Korea, and New Zealand) during the 21st ASEAN Summit and Related Summits in Phnom Penh, Cambodia in November 2012. It entered into force on 1 January 2022, and is yet to be notified to the WTO⁸⁸. It is said to be the world's largest FTA, comprising about 30% of global GDP and about a third of the world's population.⁸⁹ RCEP covers trade in goods and in services, investment, economic and technical cooperation, intellectual property, competition, dispute settlement, e-commerce, SMEs and other issues.⁹⁰

As can be seen in the provisions below, the RCEP⁹¹ has mentioned “innovation” both in a Chapter on IP, as well as on a Chapter on SMEs. In the Chapter on IP, the following features

⁸⁸ It has neither appeared in the list of RTAs in force consulted in the WTO RTAs Database, nor in the table of “recent notifications” provided for in the Homepage of the WTO RTAs Database (at least not until 2 may 2023, the date of deposit of the present thesis). As stated, the WT RTAs Database is available at: <<https://rtais.wto.org/UI/PublicMaintainRTAHome.aspx>>. Accessed: 2 may 2023.

⁸⁹ Cf. <<https://www.mti.gov.sg/Trade/Free-Trade-Agreements/RCEP#:~:text=The%20Regional%20Comprehensive%20Economic%20Partnership,of%20Korea%2C%20and%20New%20Zealand.>>>. Accessed: 29 apr. 2023.

⁹⁰ Cf. <<https://rcepsec.org/about>>. Accessed: 29 apr. 2023.

⁹¹ The legal text of the RCEP Chapters is available at: <<https://rcepsec.org/wp-content/uploads/2020/11/All-Chapters.pdf>>. Accessed: 29 apr. 2023.

stand out: (i) the fact that the parties recognize the need to promote “*innovation and creativity*” (which is a formula that was seen in many other RTAs, as previously mentioned); and (ii) the fact that it depicts IP rights as a *tool* for the promotion of innovation. Regarding the Chapter on SMEs, the importance of SMEs for innovation and the need for cooperation to encourage innovation are the highlights:

“CHAPTER 11
INTELLECTUAL PROPERTY
SECTION A
GENERAL PROVISIONS AND BASIC PRINCIPLES

Article 11.1: Objectives

1. The objective of this Chapter is to reduce distortion and impediments to trade and investment by promoting deeper economic integration and cooperation through the effective and adequate creation, utilisation, protection, and enforcement of intellectual property rights, while recognising:

(a) the Parties’ different levels of economic development and capacity, and differences in national legal systems;

(b) the need to promote [innovation](#) and creativity;

(...) 2. The protection and enforcement of intellectual property rights should contribute to the promotion of technological [innovation](#) and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations. (...)

Article 11.42: Grace Period for Patents

The Parties recognise the benefits of patent grace periods to disregard certain public disclosures of inventions when determining if an invention is novel in order to support [innovation](#). (...)

SECTION K
COOPERATION AND CONSULTATION

Article 11.76: Cooperation and Dialogue

(...) 9. The Parties shall endeavour to cooperate on issues relating to patent grace periods in order to support [innovation](#). (...)

CHAPTER 14
SMALL AND MEDIUM ENTERPRISES

Article 14.1: Objectives

1. The Parties recognise that small and medium enterprises, including micro enterprises, contribute significantly to economic growth, employment, and [innovation](#), and therefore seek to promote information sharing and cooperation in increasing the ability of small and medium enterprises to utilise and benefit from the opportunities created by this Agreement.

(...)

Article 14.3: Cooperation

The Parties shall strengthen their cooperation under this Chapter, which may include: (...)

(e) encouraging [innovation](#) and use of technology;”

Another trade agreement that could be highlighted would be the **Australia – UK Free Trade Agreement (A-UKFTA)**⁹², signed on December 2021. It has not been notified yet to the WTO Secretariat even though it concerns trade on goods and services (as both parties are still completing their respective domestic proceedings, thus it is not yet in force). Consequently, it is not included in the WTO RTAs Database.

Such Agreement is worth mentioning as it seems to have put “innovation” in the spotlight, with several mentions of the term “innovation” – in its Preamble, in the Financial Services Chapter, the Digital Trade Chapter (which contains an article specifically on “*data innovation*”), the IP Chapter, the Small and Medium Sized Enterprises Chapter, and, most notably, **with a specific Chapter to “innovation” (Chapter 20)**, as transcribed below. Moreover, as anticipated in Part I of this thesis, this is the only RTA mapped so far that provides for an explicit definition of “innovation”, in its article 20.1:

“PREAMBLE

Australia and the United Kingdom of Great Britain and Northern Ireland (“the United Kingdom”), hereinafter each individually referred to as a “Party” or collectively as the “Parties”,

(...)

RECOGNISING the strong and mutually supportive relationship between trade and **innovation**, and the contribution of both to economic growth and addressing shared challenges, and affirming the Parties' commitment to expanding their cooperation in this area;”

“Chapter 9 – Financial Services

Article 9.16 Electronic Payments

1. Noting the rapid growth of electronic payments, in particular, those provided by non-banks and FinTech enterprises, the Parties shall endeavour to support, subject to maintaining resilience, the development of efficient, safe, and secure cross-border electronic payments by:

- (a) fostering the adoption and use of internationally accepted standards for electronic payments;
- (b) promoting interoperability and the interlinking of electronic payment infrastructures; and
- (c) encouraging **innovation** and competition in electronic payments.

2. To this end, each Party shall, subject to maintaining resilience, endeavour to:

- (...) (d) facilitate the use of open platforms and architectures and encourage payment service providers to safely and securely make available new technologies and standards for their financial products and services to third parties, where possible, to facilitate greater interoperability and **innovation** in electronic payments; and
- (e) facilitate **innovation** and competition and the introduction of new financial and electronic payment products and services in a timely manner such as through adopting regulatory and industry sandboxes and cooperation at international fora.”

“Chapter 14 – Digital Trade

Article 14.13 Open Government Data

1. For the purposes of this Article, government information means non-proprietary information, including data, held by the central level of government.

⁹² Available at: <<https://www.dfat.gov.au/trade/agreements/not-yet-in-force/aukfta/official-text>>. Accessed: 29 apr. 2023.

2. The Parties recognise that facilitating public access to and use of government information fosters economic and social development, competitiveness and [innovation](#).
(...)

Article 14.14 Data [Innovation](#)

1. The Parties recognise that digitalisation and the use of data in digital trade promote economic growth. To support the cross-border transfer of information by electronic means and promote data-driven [innovation](#) in digital trade, the Parties further recognise the need to create an environment that enables and supports, and is conducive to, experimentation and [innovation](#), including through the use of regulatory sandboxes where applicable.

2. The Parties shall endeavour to support data innovation through:

- (a) collaborating on data-sharing projects, including projects involving researchers, academics and industry, using regulatory sandboxes as required to demonstrate the benefits of the cross-border transfer of information by electronic means;
- (b) cooperating on the development of policies and standards for data mobility, including consumer data portability; and
- (c) sharing research and industry practices related to data [innovation](#).”

Chapter 15 – Intellectual Property

Article 15.2 Objectives

The protection and enforcement of intellectual property rights should contribute to the promotion of technological [innovation](#) and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

(...)

Article 15.4 Understandings in Respect of this Chapter

Having regard to the underlying public policy objectives of national systems, the Parties recognise the need to:

- (a) promote [innovation](#) and creativity;
 - (b) facilitate the diffusion of information, knowledge, technology, culture, and the arts; and
 - (c) foster competition and open and efficient markets, through their respective intellectual property systems, while respecting the principles of transparency and due process, and taking into account the interests of relevant stakeholders, including right holders, service providers, users, and the general public.
- (...)

Article 15.15 Committee on Intellectual Property Rights

(...) 3. The IPR Committee shall:

- (a) exchange information, pertaining to intellectual property rights matters, including how intellectual property protection contributes to [innovation](#), creativity, economic growth, and employment, and this may include information relating to:
 - (i) developments in domestic and international intellectual property law and policy;
 - (ii) economic benefits related to trade and other analysis of the contributions arising from the protection and enforcement of intellectual property rights;
 - (iii) intellectual property issues particularly relevant to SMEs including affordable and accessible justice; science, technology, and [innovation](#) activities; and to the generation, transfer, and dissemination of technology;”

“Chapter 19 – Small and Medium Sized Enterprises

Article 19.1 General Provisions

(...)

5. The Parties also recognise the relevance of:

- (a) working cooperatively to identify and address barriers to SMEs’ access to international markets;
- (b) considering the needs of SMEs when formulating new legislation, regulation and product standards; and

(c) assessing the effects of globalisation on SMEs and, in particular, examining issues related to SMEs' access to financing and to support for [innovation](#).”

“Chapter 20 – [Innovation](#)”

Article 20.1 Definitions

For the purposes of this Chapter:

“[innovation](#)” means the development or implementation of a new or improved product, process, or organisational method, or combination thereof.

Article 20.2 Objective

The objective of this Chapter is to support trade and economic growth between the Parties through collaboration on [innovation](#), consistent with the laws, regulations and policies of each Party.

Article 20.3 General Provisions

1. The Parties recognise the important role that [innovation](#) plays in their economies, including by stimulating competitiveness, increasing productivity, encouraging investment and promoting international trade.
2. The Parties confirm that their intention is for this Agreement to support [innovation](#) in their respective economies, including by fostering opportunities in [innovation-intensive](#) industries and encouraging trade in [innovative](#) goods and services.
3. The Parties acknowledge the existing collaboration on [innovation](#) between their governments, industries, universities, publicly funded research agencies and other non-governmental bodies, and confirm their commitment to further strengthening this collaboration.

Article 20.4 Artificial Intelligence and Emerging Technologies

1. The Parties recognise that emerging technologies, including artificial intelligence and other digital technologies, are becoming increasingly important within the global economy, and offer significant social and economic benefits.
2. The Parties shall cooperate, where appropriate through the Strategic [Innovation Dialogue](#) established pursuant to paragraph 1 of Article 20.5 (Strategic [Innovation Dialogue](#)), in activities aimed at encouraging the development and adoption of emerging technologies, and facilitating trade in related products and services. Those activities may include:
 - (a) sharing research and industry practices related to emerging technologies and their governance;
 - (b) promoting and sustaining the responsible use and adoption of emerging technologies by businesses and across the community;
 - (c) encouraging commercialisation opportunities and collaboration between research institutions, industries and businesses related to emerging technologies;
 - (d) playing an active role in the development of international standards, regulations and conformity assessment procedures that provide clear expectations for businesses and support the growth of emerging technologies;
 - (e) facilitating and promoting investment in research and development related to emerging technologies; and
 - (f) facilitating and promoting trade in emerging technologies, including by exchanging views on effective trade policy approaches.
3. The Parties also recognise the importance of developing governance frameworks for the trusted, safe, and responsible use of emerging technologies that will help realise the benefits of these technologies. The Parties further acknowledge the benefits of ensuring that those frameworks are internationally aligned as far as possible. To this end, the Parties shall endeavour to:
 - (a) collaborate on, and promote the development and adoption of, governance frameworks that support the trusted, safe, and responsible use of emerging technologies, through relevant international fora, in particular the Global Partnership on Artificial Intelligence; and
 - (b) take into consideration internationally recognised principles or guidelines, in particular the Organisation for Economic Cooperation and Development's Principles

on Artificial Intelligence adopted by its Council on 22 May 2019, when developing those frameworks.

Article 20.5 Strategic Innovation Dialogue

1. The Parties hereby establish a Strategic Innovation Dialogue for the purposes of facilitating an open business environment that supports and stimulates innovation in their territories, promoting and strengthening trade-facilitative innovation policy, identifying unnecessary barriers to trade in innovative goods and services, and identifying other opportunities to further the objective of this Chapter.

2. Through the Strategic Innovation Dialogue, the Parties shall mutually identify areas of cooperation to promote and facilitate innovation in their territories. Examples of areas of cooperation may include:

- (a) regulatory approaches that facilitate innovation, including the uptake and implementation of international innovation best practice standards;
- (b) emerging and transformative technologies, including clean and low emissions technologies, artificial intelligence, and other digital technologies;
- (c) the commercial application of new technologies, including in economic sectors such as agriculture, health, energy, mineral resources, space, and manufacturing;
- (d) value chain matters, including supply chain resilience; and
- (e) global innovation networks and cross-border trade in intangible assets, including through higher education and research collaboration.

3. Through the Strategic Innovation Dialogue, the Parties shall:

- (a) share best practice principles and explore opportunities in innovation policy across government, academia, research organisations, industry and business;
- (b) review existing relationships for opportunities to strengthen bilateral engagement on the impacts of innovation on trade and investment;
- (c) explore ways in which innovation can further promote trade and investment; and
- (d) consider any other matter that the Parties deem appropriate which furthers the objective of this Chapter.

4. Consistent with the objective of this Chapter, the Strategic Innovation Dialogue may develop a cooperative activity between the Parties in an area of mutual interest.

5. The Parties may consult with or seek advice from a qualified non-governmental expert or stakeholder in relation to furthering the objective of this Chapter, including by inviting them to participate in the Strategic Innovation Dialogue.

6. The Strategic Innovation Dialogue shall be co-chaired by a representative from each Party.

7. The Strategic Innovation Dialogue shall convene within 12 months of the date of entry into force of this Agreement and thereafter at least once every two years, unless the Parties agree otherwise.

8 Each Party shall, on entry into force of this Agreement, designate a contact point for the Strategic Innovation Dialogue and notify the other Party of that contact point. Each Party shall promptly notify the other Party of any change to those contact details.

9. The Strategic Innovation Dialogue may engage with any committee, working group, or other subsidiary body established under this Agreement to further the objective of this Chapter.^[1]

10. The Joint Committee may refer a matter to the Strategic Innovation Dialogue for its consideration.

Article 20.6 Review of this Agreement

1. The Parties recognise the importance of ensuring that the disciplines contained in this Agreement remain relevant to the trade and investment issues and challenges confronting them, including those arising from innovation.

2. Where a review is conducted pursuant to paragraph 1 and in accordance with subparagraph 3(a) of Article 32.6 (General Review – Final Provisions), the Parties shall take into account developments in innovation, including as discussed through the Strategic Innovation Dialogue.

Article 20.7 Non-Application of Dispute Settlement

Neither Party shall have recourse to dispute settlement under Chapter 30 (Dispute Settlement) for any matter arising under this Chapter.

¹¹¹ The Strategic **Innovation** Dialogue shall not be considered a committee, working group, or other subsidiary body established under this Agreement for the purposes of Chapter 29 (Administrative and Institutional Arrangements).”

Chapter 21 – Labour

(...) “**Article 21.12 Cooperation**

(...) 2. In undertaking cooperative activities, the Parties shall be guided by the following principles:

- (a) consideration of each Party’s priorities, level of development and available resources;
- (b) broad involvement of, and mutual benefit to, the Parties;
- (c) relevance of capacity and capability-building activities, including technical assistance between the Parties to address labour protection issues and activities to promote **innovative** workplace practices; (...)”

Chapter 22 – Environment

(...) Article 22.7 Circular Economy

(...) 3. Consistent with Article 22.20 (Cooperation Frameworks), the Parties shall cooperate to address matters of mutual interest related to the transition towards a circular economy. Areas of cooperation may include:

- (...) (h) technological **innovation** related to the circular economy including **innovative** approaches to recycling and litter reduction, processing waste, waste tracking mechanisms, data collection, sustainable plastic packaging, and alternative materials;”

Chapter 32 – Final Provisions

(...) Article 32.6 General Review

(...) 3. A review pursuant to paragraph 1 shall take into account:

- (a) developments in **innovation**;
- (b) the work of all committees, working groups, dialogues and any other subsidiary bodies established under this Agreement; and
- (c) relevant developments in international fora.”

It is interesting to note that the Chapter dedicated to “Innovation” (Chapter 20) expressly excludes the possibility of the parties to that Agreement to have recourse to dispute settlement for any matter arising under such Chapter (as provided for under Article 20.7 of the Agreement) – which evidences that the commitments and actions set forth related to innovation in the context of that Chapter have a more aspirational (“soft”) rather than mandatory nature *per se*.

Another agreement that is worth highlighting would be the EU-MERCOSUR agreement. The European Union and Mercosur States (Argentina, Brazil, Paraguay and Uruguay⁹³) reached a political agreement on 28 June 2019 for a comprehensive trade agreement. The texts of the Trade part of the Agreement were made available for information purposes only and may still undergo further modifications as a result of the process of legal revision.⁹⁴

⁹³ Venezuela is suspended in all the rights and obligations inherent to its status as a State Party of MERCOSUR, in accordance with the provisions of the second paragraph of article 5 of the Protocol of Ushuaia.

⁹⁴ Cf. <https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/mercosur/eu-mercosur-agreement/text-agreement_en>. Accessed: 29 apr. 2023.

As can be seen in the provisions below, “innovation” was mentioned in the Chapters on “Dialogues”, “Intellectual Property”, “Trade and Sustainable Development” and “SMEs”, most often in provisions acknowledging the importance of innovation and of its promotion:

CHAPTER - DIALOGUES

Article 5 Combating antimicrobial resistance

This dialogue will cover, inter alia:

1. The collaboration to follow up existing and future guidelines, standards, recommendations and actions developed in relevant international organisations, initiatives and national plans aiming to promote the prudent and responsible use of antibiotics and relating to animal production and veterinary practices.
2. The collaboration in the implementation of the recommendations of OIE, WHO and Codex, in particular CAC-RCP61/2005.
3. The exchange of information on good farming practices.
4. The promotion of research, [innovation](#) and development.
5. The promotion of multidisciplinary approaches to combat antimicrobial resistance, including the *One Health* approach of WHO, OIE and Codex Alimentarius.

ARGENTINA

Appendix 1

Annex 7

General Notes

The following general notes apply to all government procurement covered by this Chapter:

(...) This Chapter does not apply to pre-commercial government procurement aimed at promoting the development of [innovative](#) solutions for public sector needs, for up to 215 million SDR, annually. Pre-commercial government procurement includes the product idea, solution design, prototyping, original development and validation/testing of a limited set of first products. (...)

PARAGUAY

Appendix 1

Annex 7

General Notes

1. In the National Public Tenders called by the institutions covered in the Paraguay Offer, the country reserves the right to apply support programs for national production and employment referring to the contracts that the State makes Paraguayan. With regard to support programs for production and national employment, Paraguay may: (...)

B) use support programs to stimulate [innovation](#) and scientific and technological research, including offsets provided that their conditions and their assessment are non-discriminatory and indicated in the notice of intended procurement and clearly defined in the procurement documents.

This shall apply for 10 years as of entry into force of the Agreement.

CHAPTER [XX]

INTELLECTUAL PROPERTY

Section A – General Provisions and Principles

(...)

Article X.2

Objectives

The objectives of this Chapter are to:

- a) Facilitate access, production and commercialisation of [innovative](#) and creative products and foster trade and investment between the Parties contributing to a more sustainable, equitable and inclusive economy for the Parties;
- b) Achieve an adequate and effective level of protection and enforcement of intellectual property rights that provides incentives and rewards to [innovation](#) while contributing to the effective transfer and dissemination of technology and favouring

social and economic welfare and the balance between the rights of the holders and the public interest;

c) Foster measures that will help the Parties to promote research and development, and access to knowledge, including to a rich public domain.

Article X.6

Protection of Biodiversity and Traditional knowledge

1. The Parties recognise the importance and value of biological diversity and its components and of the associated traditional knowledge, [innovations](#) and practices of indigenous and local communities. The Parties furthermore reaffirm their sovereign rights over their natural resources and recognise their rights and obligations as established by the Convention of Biological Diversity of 1992 (henceforth referred to as CBD) with respect to access to genetic resources, and to the fair and equitable sharing of benefits arising out of the utilisation of these genetic resources. (...)

Article X.59

Cooperation

(...) 2. The areas of cooperation include, but are not limited to, the following activities:
(m) The application of the CBD and related instruments, and the domestic frameworks on access to genetic resources and associated traditional knowledge, [innovations](#) and practices; (...)

CHAPTER – TRADE AND SUSTAINABLE DEVELOPMENT

Article 4 – Multilateral Labour Standards and Agreements

1. Affirming the value of greater policy coherence in decent work, encompassing core labour standards, and high levels of labour protection, coupled with their effective enforcement, the Parties recognize the beneficial role that those areas can have on economic efficiency, [innovation](#) and productivity, including export performance. In this context, they also recognize the importance of social dialogue on labour matters among workers and employers, and their respective organizations, and governments, and commit to the promotion of such dialogue.

CHAPTER – SMALL AND MEDIUM-SIZED ENTERPRISES

Article 1 – General principles

1. The Parties recognise that Small and Medium-sized Enterprises, which include micro, small and medium-sized enterprises and entrepreneurs (hereinafter referred to as SMEs), contribute significantly to trade, economic growth, employment and [innovation](#). The Parties seek to support the growth and development of SMEs by enhancing their ability to participate in and benefit from the opportunities created by this Agreement.

2.3.2 Agreements that do not need to be notified to the WTO Secretariat

As an example of a (trade) agreement that does not need to be notified to the WTO Secretariat (as it does not comprise trade in goods and/or in services), one could highlight the **Digital Economy Partnership Agreement (DEPA)** between Singapore, Chile and New Zealand in 2020. The DEPA is a first of its kind agreement that establishes new approaches and collaborations in digital trade issues, promotes interoperability between different regimes and addresses the new issues brought about by digitalisation.⁹⁵ It is, in other words, the world's first

⁹⁵ Cf. <<https://www.mti.gov.sg/Trade/Digital-Economy-Agreements/The-Digital-Economy-Partnership-Agreement>>. Accessed: 29 apr. 2023.

digital-only trade agreement, which has been sparking the interest of many economies that have expressed interest in joining that pact, such as South Korea, Canada⁹⁶ and China.⁹⁷

The DEPA was created as a “live” agreement, in the sense that it can be continuously updated and modernized as needed. Moreover, as the three current signatories – Singapore, Chile and New Zealand – already enjoy market access to one another’s economies through their membership in the CPTPP, the DEPA could be regarded as building on the CPTPP e-commerce chapter while also venturing in uncharted territories like e-payments, e-invoicing, and emerging technologies like AI and fintech.⁹⁸

The agreement at hand mentions “innovation” in several passages: in the Preamble, in an article on electronic payments (art. 2.7), in a whole Module on “Innovation and the Digital Economy” (Module 9) – which includes an article on “Data innovation” –, on Open Government Data, and on information sharing concerning small and medium enterprises cooperation:

“PREAMBLE

The Parties to this Agreement, resolving to:

(...) RECOGNISE the global value of the Internet and its open architecture as an enabler of the digital economy and catalyst for global [innovation](#);

(...) RECOGNISE their interdependence on matters relating to the digital economy and, as leading online economies, their shared interest in protecting critical infrastructure and ensuring a safe and reliable Internet that supports [innovation](#) and economic and social development;”

“Article 2.7: Electronic Payments

1. Noting the rapid growth of electronic payments, in particular, those provided by new payment service providers, Parties agree to support the development of efficient, safe and secure cross border electronic payments by fostering the adoption and use of internationally accepted standards, promoting interoperability and the interlinking of payment infrastructures, and encouraging useful [innovation](#) and competition in the payments ecosystem.

2. To this end, and in accordance with their respective laws and regulations, the Parties recognise the following principles:

(...) (c) The Parties shall endeavour to promote the use of Application Programming Interface (API) and to encourage financial institutions and payment service providers to make available APIs of their financial products, services and transactions to third party players where possible to facilitate greater interoperability and [innovation](#) in the electronic-payments ecosystem.

(...) (f) The Parties agree that policies should promote [innovation](#) and competition in a level playing field and recognise the importance of enabling the introduction of new financial and electronic payment products and services by incumbents and new entrants in a timely manner such as through adopting regulatory and industry sandboxes.”

⁹⁶ Cf. <<https://www.asiapacific.ca/publication/depa-worlds-first-digital-only-trade-agreement>>. Accessed: 29 apr. 2023.

⁹⁷ Cf. <<https://www.china-briefing.com/news/can-china-join-the-digital-economy-partnership-agreement/>>. Accessed: 29 apr. 2023.

⁹⁸ Cf. <<https://www.asiapacific.ca/publication/depa-worlds-first-digital-only-trade-agreement>>. Accessed: 29 apr. 2023.

“MODULE 9
INNOVATION AND THE DIGITAL ECONOMY

Article 9.2: Objectives

The Parties affirm the importance of technological innovation, creativity, and the transfer and dissemination of technology, being for the mutual advantage of producers and users of knowledge, as a means to achieve social and economic welfare.

(...)

Article 9.4: Data Innovation

1. The Parties recognise that cross-border data flows and data sharing enable data-driven innovation. The Parties further recognise that innovation may be enhanced within the context of regulatory data sandboxes where data, including personal information, is shared amongst businesses in accordance with the Parties’ respective laws and regulations.

2. The Parties also recognise that data sharing mechanisms, such as trusted data sharing frameworks and open licensing agreements, facilitate data sharing and promote its use in the digital environment to:

(a) promote innovation and creativity;

(b) facilitate the diffusion of information, knowledge, technology, culture and the arts;
And

(c) foster competition and open and efficient markets.

3. The Parties shall endeavour to collaborate on data-sharing projects and mechanisms, and proof of concepts for new uses of data, including data sandboxes, to promote data-driven innovation.

Article 9.5: Open Government Data

1. The Parties recognise that facilitating public access to and use of government information may foster economic and social development, competitiveness and innovation.

(...) 4. Cooperation under this Article may include activities such as:

(a) jointly identifying sectors where open data sets, particularly those with global value, can be used to facilitate technology transfer, talent formation and innovation, among other things; (...)”

“MODULE 10

SMALL AND MEDIUM ENTERPRISES COOPERATION

Article 10.3: Information Sharing

3. The information described in paragraph 2(b) may include information related to the following areas:

(...) (c) innovation and data regulatory sandboxes;”

It is noteworthy that the agreement in question does not establish binding rules concerning innovation topics. The approach is heavily weighted towards cooperation, collaboration, frameworks for future work and/or best-endeavors language. Such approach could be seen as a strength rather than a failure, considering that the areas that were regulated by the DEPA are rapidly evolving, being it challenging to develop definitive rules for them. Considering that, the Agreement itself is open to the addition of new topics over time as technology evolves.⁹⁹

⁹⁹ Cf. <<https://www.tradeexpertes.org/blog/articles/untangling-the-digital-noodle-bowl-the-case-for-depa>>. Accessed: 29 apr. 2023.

Singapore is now vigorously exploring similar Digital Economy Agreements with a range of other partners, including the United Kingdom (UKSDEA), Korea (KSDPA) and most recently, Viet Nam, which could include even further innovative ideas or commitments beyond those in the DEPA.

3 SUMMARY OBSERVATIONS AND CONCLUDING REMARKS

The previous sections on Part II focused on presenting a description of the *status quo* of how trade agreements have approached “innovation” in their legal texts so far, based on an empirical assessment of a determined set of trade agreements, mainly from a credible database (the WTO RTAs Database). The idea was to start from a clean slate, stripped as much as possible from preconceptions regarding the said subject, in an attempt to detangle the ‘spaghetti bowl’ of trade agreements with a focused approach.

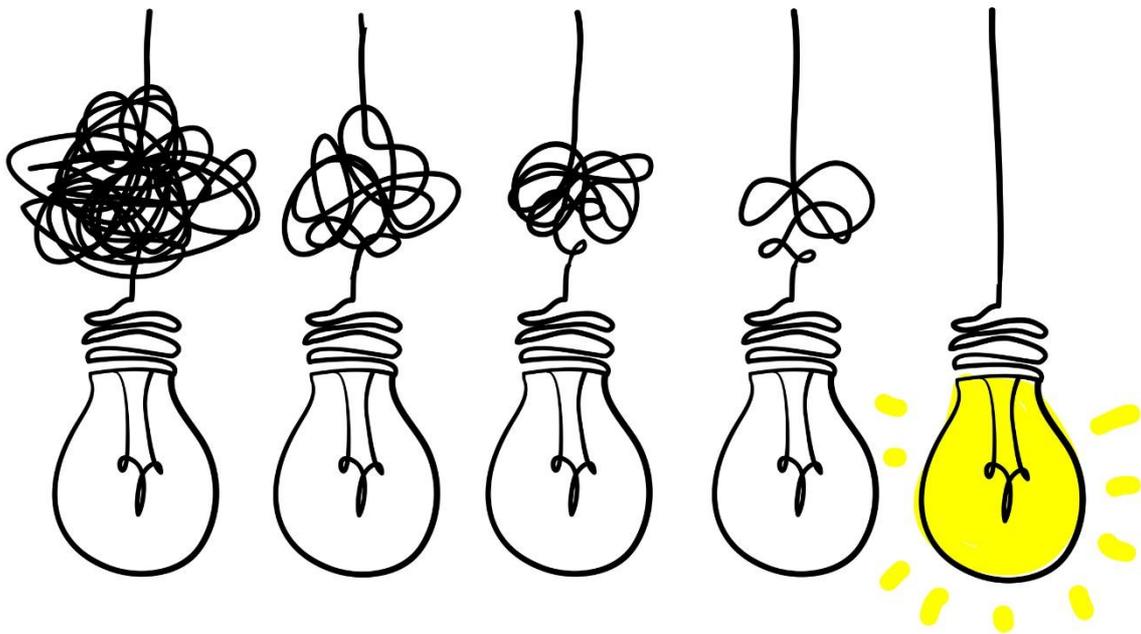
The results seem to reflect the difficulties and complexities in dealing with such a broad and open concept: though almost all RTAs analyzed do not provide for a definition of “innovation”, there seems to be a common understanding on the importance of “innovation”, either as a tool for other objectives (such as for development), or as an end in itself. Furthermore, the majority of the trade agreements that contain the keyword “innovation” are those with a higher degree of complexity (FTAs & EIAs), that cover both trade in goods and in services, mostly involving countries or territories from two continents (sometimes even stretching the concept of a *regional* trade agreement, being an inter-regional agreement), with a special mention to the Europe-Asia combination. Historically, the term “innovation” started to be more often used in the legal texts of trade agreements from 2000 on, having peaked in the 2010-2014 period.

In terms of the content of the provisions mapped that mentioned the keyword “innovation” or its variations, most of them provided for cooperation commitments on various areas, followed by provisions on IP protection and IP rights, and those in the Preamble and/or the Objectives of the agreements. That indicates the understanding that “innovation” is not limited to discussions on intellectual property, as well as that it involves a collective effort whenever it aims at other goals (such as sustainable development and/or economic growth). Newer issues such as data protection and artificial intelligence have started to come up in a few more recent trade agreements, especially in those involving either Singapore and/or the UK. Environmental issues have also been quite recurrent – and even some agreements have highlighted the importance of ‘eco-innovation’ in its legal texts.

It is also noteworthy that there are provisions that despite not containing the keyword “innovation”, still could reflect and/or have an impact on innovation, such as provisions on Customs and Trade Facilitation (that very often employ the term “technology” when providing for the use of technological resources for instance in activities related to customs), on Investment and on Government Procurement.

It is also worth underlining that the focus of the international trade agreements herein analyzed seems to be not so much on concretely promoting the internal development of innovation in each country, but more so on creating a friendly environment to innovation efforts, to policies in favor of innovation, and on avoiding the existence of barriers to the circulation and the access to innovative goods and services.

**PART III: A CRITICAL VIEW ON THE REGULATION OF
“INNOVATION” IN INTERNATIONAL TRADE AGREEMENTS, AND
POSSIBLE WAYS FORWARD**



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PART III: A CRITICAL VIEW ON THE REGULATION OF “INNOVATION” IN INTERNATIONAL TRADE AGREEMENTS, AND POSSIBLE WAYS FORWARD

PART III.1: LOOKING BACKWARD AND INWARD

Having thoroughly described how International Trade Agreements regulate “innovation” in the previous Chapter, Part III will then present critical insights on the data presented, first focusing on the regulation itself as it is, and then, on possible ways forward.

By initially turning the focus on the language of the provisions that were mapped, the idea is to verify whether some of the perceptions and presumptions generally extracted from a first reading of those provisions – for instance, the fact that they are more soft law-like provisions – do resonate with legal theoretical frameworks available. Such inward analysis will also enable a discussion on the risks, benefits, and opportunities of regulating innovation through international trade agreements.

In addition to looking inward, a backward approach will also be adopted to try to understand the rationale behind the approaches that were made to address the subject, delving into the question of whether there is a right to innovation in the first place. To wrap up this Chapter, still on the idea of looking at past and present experiences, an outlook of the Chilean, Singaporean, British and Brazilian domestic regulation, policies and institutions will be presented *vis-à-vis* their level of engagement in international trade agreements that mentioned “innovation” in their legal texts, with the aim of adding another contextual layer to the analyses.

1 ON THE LEGALIZATION OF “INNOVATION”

1.1 Leaning towards “hard” legalization or “soft” legalization?

The article “The Concept of Legalization”, by ABBOTT, KEOHANE, MORAVCSIK, SLAUGHTER and SNIDAL¹⁰⁰, provides a useful framework to better understand and scrutinize the regulations at hand from a legal standpoint, and to verify whether they lean towards “hard” legalization or a “softer” legalization.

¹⁰⁰ ABBOTT, Kenneth W.; KEOHANE, Robert O.; MORAVCSIK, Andrew; SLAUGHTER, Anne-Marie; and SNIDAL, Duncan. The Concept of Legalization in International Organization, v. 54, n. 3, p. 401-419, 2000. Available at: <<https://www.princeton.edu/~amoravcs/library/concept.pdf>>. Accessed: 29 apr. 2023.

According to the said authors, “legalization” refers to a particular set of characteristics that institutions may (or may not) possess. These characteristics are defined along three dimensions: **obligation**, **precision**, and **delegation**.

Obligation means that “states or other actors are bound by a rule or commitment or by a set of rules or commitments” – in other words, “it means that they are legally bound by a rule or commitment in the sense that their behavior thereunder is subject to scrutiny under the general rules, procedures, and discourse of international law, and often of domestic law as well”. The table below summarizes the variety of commitments along the continuum of obligation:

Figure 32: Indicators of obligation

TABLE 2. Indicators of obligation	
High	<ul style="list-style-type: none"> Unconditional obligation; language and other indicia of intent to be legally bound Political treaty: implicit conditions on obligation National reservations on specific obligations; contingent obligations and escape clauses Hortatory obligations Norms adopted without law-making authority; recommendations and guidelines Explicit negation of intent to be legally bound
Low	

Source: ABBOTT, KEOHANE, MORAVCSIK, SLAUGHTER and SNIDAL (2000), p. 410.

Precision means that “rules unambiguously define the conduct they require, authorize, or proscribe”. The authors clarify that imprecision in provisions “is not generally the result of a failure of legal draftsmanship, but a deliberate choice given the circumstances of domestic and international politics”.

Figure 33: Indicators of precision

TABLE 3. Indicators of precision	
High	<ul style="list-style-type: none"> Determinate rules: only narrow issues of interpretation Substantial but limited issues of interpretation Broad areas of discretion “Standards”: only meaningful with reference to specific situations Impossible to determine whether conduct complies
Low	

Source: ABBOTT, KEOHANE, MORAVCSIK, SLAUGHTER and SNIDAL (2000), p. 415.

Delegation means that “third parties have been granted authority to implement, interpret, and apply the rules; to resolve disputes; and (possibly) to make further rules”. According to the authors, “delegation of legal authority is not confined to dispute resolution”:

“a range of institutions – from simple consultive arrangements to full-fledged international bureaucracies – helps to elaborate imprecise legal norms, implement agreed rules, and facilitate enforcement”:

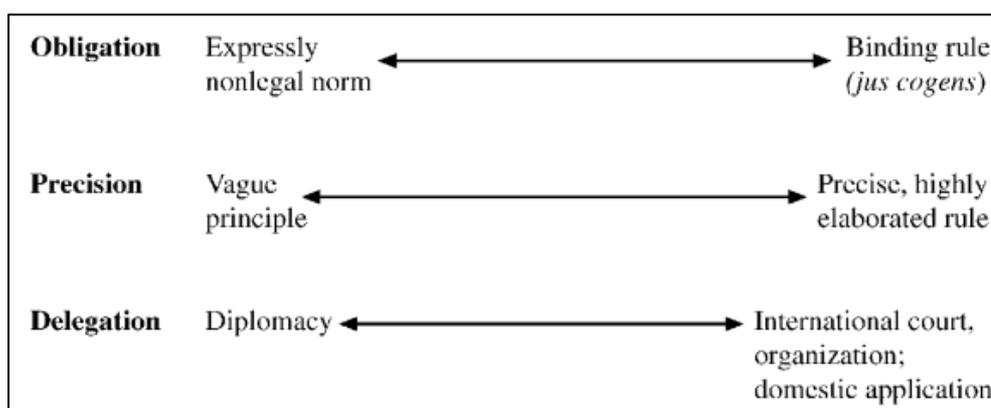
Figure 34: Indicators of delegation

TABLE 4. Indicators of delegation	
a. Dispute resolution	
	High
	Courts: binding third-party decisions; general jurisdiction; direct private access; can interpret and supplement rules; domestic courts have jurisdiction
	Courts: jurisdiction, access or normative authority limited or consensual
	Binding arbitration
	Nonbinding arbitration
	Conciliation, mediation
	Institutionalized bargaining
	Pure political bargaining
	Low
b. Rule making and implementation	
	High
	Binding regulations; centralized enforcement
	Binding regulations with consent or opt-out
	Binding internal policies; legitimation of decentralized enforcement
	Coordination standards
	Draft conventions; monitoring and publicity
	Recommendations; confidential monitoring
	Normative statements
	Forum for negotiations
	Low

Source: ABBOTT, KEOHANE, MORAVCSIK, SLAUGHTER and SNIDAL (2000), p. 416.

The authors clarified that “each of these dimensions is a matter of degree and gradation, not a rigid dichotomy, and each can vary independently”. As illustrated below, “each element of the definition appears as a continuum, ranging from the weakest form (the absence of legal obligation, precision, or delegation, except as provided by the background operation of the international legal system) at the left to the strongest or “hardest” form at the right”. Moreover, it depicts the independence of those dimensions from each other: “conceptually, at least, the authors of a legal instrument can combine any level of obligation, precision, and delegation to produce an institution exactly suited to their specific needs”:

Figure 35: the dimensions of legalization



Source: ABBOTT, KEOHANE, MORAVCSIK, SLAUGHTER and SNIDAL (2000), p. 404.

The authors further clarify that “*it would be inappropriate to equate the right-hand end points of these dimensions with “law” and the left-hand end points with “politics,” for politics continues (albeit in different forms) even where there is law. Nor should one equate the left-hand end points with the absence of norms or institutions*”. In this sense, they underlined that “*between these extremes, where most international legalization lies, actors combine and invoke varying degrees of obligation, precision, and delegation to create subtle blends of politics and law*”.

Using the format of the Figure above, one can plot where a particular arrangement falls on the three dimensions of legalization. For instance, one of the examples mentioned by the authors is the TRIPS Agreement – which they deemed as strong on all three elements. The said Figure can also be used to depict variations in the degree of legalization between portions of an instrument, and within a given instrument or regime over time. The Figure below exemplifies the variety of international legalization:

Figure 36: Forms of international legalization

<i>Type</i>	<i>Obligation</i>	<i>Precision</i>	<i>Delegation</i>	<i>Examples</i>
Ideal type:				
Hard law				
I	High	High	High	EC; WTO—TRIPs; European human rights convention; International Criminal Court
II	High	Low	High	EEC Antitrust, Art. 85-6; WTO—national treatment
III	High	High	Low	U.S.–Soviet arms control treaties; Montreal Protocol
IV	Low	High	High (moderate)	UN Committee on Sustainable Development (Agenda 21)
V	High	Low	Low	Vienna Ozone Convention; European Framework Convention on National Minorities
VI	Low	Low	High (moderate)	UN specialized agencies; World Bank; OSCE High Commissioner on National Minorities
VII	Low	High	Low	Helsinki Final Act; Nonbinding Forest Principles; technical standards
VIII	Low	Low	Low	Group of 7; spheres of influence; balance of power
Ideal type: Anarchy				

Source: ABBOTT, KEOHANE, MORAVCSIK, SLAUGHTER and SNIDAL (2000), p. 406.

Regarding the bottom line of the table above, the authors clarified that “*even conceptually, moreover, there is a wide gap between the weakest forms of legalization and the complete absence of norms and institutions*”. Furthermore, they highlight that “*given the range of possibilities, we do not take the position that greater legalization, or any particular form of legalization, is inherently superior*”, and that “*institutional arrangements in the middle or lower reaches of Table I [above] may best accommodate the diverse interests of concerned actors*”. In this sense, a concrete example brought by Judith Goldstein and Lisa Martin was mentioned: “*more highly legalized trade rules can be problematic for liberal trade policy*”.

With all that in mind, it is possible then to try to apply such theoretical framework to a couple of selected provisions that mention “innovation” from the RTAs under analysis, to verify whether they lean towards “harder” legalization or a “softer” legalization. The analysis will not encompass the agreements as a whole, but rather specific clauses selected from the different categories previously mapped.

First, the **provisions found in the Preamble and/or the Objectives** of the RTAs in question either set forth aspirational ideas, or general acknowledgments, presumptions and/or objectives. In terms of the dimensions of legalization, as seen in the table below, those provisions seem to fall more on the left side of the spectrum (characterized by its vagueness, non-legal character, and diplomacy):

Table 29: Dimensions of legalization of provisions in the Preamble and/or the Objectives of the RTAs

Examples of provisions	Obligation	Precision	Delegation	Result
“(…) resolved to: (…) FOSTER creativity and innovation and promote stronger links between dynamic sectors of their economies;” (Australia – Chile RTA)	Low to Moderate (Hortatory obligation)	Low to Moderate (Broad area of discretion)	Low (Normative statement)	“Softer” legalization
“(…) Acknowledging that encouraging innovation and competition and improving their attractiveness to capital and human resources can enhance their ability to respond to such new challenges and opportunities; (…)” (Japan – Philippines RTA)	Low (Guideline; acknowledgment)	Low to Moderate (Broad area of discretion)	Low (Normative statement)	“Softer” legalization
“Article 1.2 Objectives 1. The objectives of this Agreement are: (…) (d) to improve the efficiency and competitiveness of their goods and services sectors by promoting conditions for competition cooperation, for innovation and for mutually beneficial business collaboration; and (…)” (New Zealand – Malaysia RTA)	Low to Moderate (Hortatory obligation)	Low to Moderate (Broad area of discretion)	Low (Normative statement)	“Softer” legalization
“(…) 22. CONSIDERING that cooperation in areas of shared interest, such as science, research and innovation , nuclear research and space, in the form of the participation of the United Kingdom in the corresponding Union programmes under fair and appropriate conditions will benefit both Parties,” (EU-UK RTA)	Low (Guideline; acknowledgment)	Low to Moderate (Broad area of discretion)	Low (Normative statement)	“Softer” legalization

Source: author’s elaboration.

Secondly, regarding **the provisions on IP issues** that mention the keyword “innovation”, the results vary from provisions that tend more to a “softer” legalization (which seems to be the case of most of the provisions on IP that expressly mention “innovation”) to a “moderate to high” degree of legalization (which seems to be the case of very few provisions), as illustrated below:

Table 30: Dimensions of legalization of provisions on IP of the RTAs

Examples of provisions	Obligation	Precision	Delegation	Result
“CHAPTER 10 INTELLECTUAL PROPERTY (…) Article 10.2: Intellectual Property Principles 1. The Parties recognise the importance of intellectual property in promoting economic and social development, particularly in the new digital economy, technological innovation and trade.” (Trans-Pacific Strategic Economic Partnership RTA)	Low to Moderate (Hortatory obligation)	Low to Moderate (Broad area of discretion)	Low (Normative statement)	“Softer” legalization
Article 138	Moderate to High	Low to Moderate	Moderate	Moderate legalization

Cooperation on eco- innovation and renewable energy (...) 2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas: (...) (c) promotion of eco- innovation networks and clusters, including through public-private partnerships; (...) (EU-CARIFORUM States RTA)	(Contingent obligation)	(Broad area of discretion)	(Coordination standards; decentralized enforcement)	
“Chapter Sixteen Intellectual Property Rights Article 16.12: Promotion of Innovation and Technological Development (...) 2. The Parties shall give priority to collaborations that advance common goals in science, technology, and innovation and support partnerships between public and private research institutions and industry. Any such collaborative activities or transfer of technology shall be based on mutually agreed terms.” (US – Peru RTA)	Moderate to High (Contingent obligation)	Low to Moderate (Broad area of discretion)	Moderate (Coordination standards; decentralized enforcement)	Moderate legalization
“Chapter 11 Intellectual Property Rights Article 188 Other Considerations 1. The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.” (Japan – Peru RTA)	Low (Recommendation ; guideline)	Low to Moderate (Broad area of discretion)	Low to Moderate (Recommendation)	“Softer” to Moderate legalization
“CHAPTER 14 INTELLECTUAL PROPERTY ARTICLE 14.1 Initial provisions 1. In order to facilitate the production and commercialisation of innovative and creative products and the provision of services between the Parties and to increase the benefits from trade and investment, the Parties shall grant and ensure adequate, effective and non-discriminatory protection of intellectual property and provide for measures for the enforcement of intellectual property rights against infringement thereof, including counterfeiting and piracy, in accordance with the provisions of this	High (Unconditional obligation)	Moderate to high (Substantial but limited issues of interpretation)	Moderate (Coordination standards; decentralized enforcement)	Moderate to high legalization

Chapter and of the international agreements to which both Parties are party. (UK – Japan RTA)				
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Source: author’s elaboration.

Thirdly, regarding provisions on **Cooperation commitments**, most of them seem to fall in the middle to the left of the spectrum, ranging from moderate to low legalization levels. Even though many of them adopt strong terms such as “shall” (indicating an obligation), the content of the obligations generally seems a bit broad, as evidenced in the provisions below:

Table 31: Dimensions of legalization of Cooperation provisions of the RTAs

Examples of provisions	Obligation	Precision	Delegation	Result
TITLE VI ECONOMIC COOPERATION (...) Article 45 Industrial cooperation The Parties shall promote cooperation in particular in the following areas: - industrial cooperation between economic operators in the Community and in Israel, including access for Israel to Community networks for the rapprochement of businesses and decentralised cooperation, - diversification of industrial output in Israel, - cooperation between small and medium-sized enterprises in the Community and Israel, - easier access to investment finance, - information and support services, - stimulation of innovation .” (EU-Israel RTA)	High (Unconditional obligation)	Low to Moderate (Broad area of discretion)	Moderate (Coordination standards; decentralized enforcement)	Moderate legalization
“PART III COOPERATION Article 16 General objectives 1. The Parties shall establish close cooperation aimed inter alia at: (...) (c) stimulating productive synergies, creating new opportunities for trade and investment and promoting competitiveness and innovation ; (...) (EU-Chile RTA)	High (Unconditional obligation)	Low to Moderate (Broad area of discretion)	Moderate (Coordination standards; decentralized enforcement)	Moderate legalization
“CHAPTER 13 INTELLECTUAL PROPERTY Article 9 Co-operation (...) 2. At the request of a Party, any other Party may, to the extent possible and as appropriate, render assistance to the requesting Party in order to enhance the requesting Party’s national framework for the acquisition, protection, enforcement, utilisation and creation of intellectual	Low (Recommendation ; guideline)	Low to Moderate (Broad area of discretion)	Low to Moderate (Recommendation)	“Softer” to Moderate legalization

property, with a view to developing intellectual property systems that foster domestic innovation in the requesting Party.” (ASEAN – Australia – New Zealand RTA)				
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Source: author’s elaboration.

Forth, concerning provisions on **e-commerce/digital trade** that mentioned the keyword “innovation”, most of them (if not all) seem to reflect a “softer” legalization, and to present quite broad acknowledgments and agreements without further detailing in more concrete terms the relationship between innovation and e-commerce, as seen below:

Table 32: Dimensions of legalization of provisions on digital trade of the RTAs

Examples of provisions	Obligation	Precision	Delegation	Result
“Chapter Fifteen - Electronic Commerce (...) Article 1502: General Provisions (...) 2. Considering the potential of electronic commerce as a social and economic development tool, the Parties recognize the importance of: (...) (c) interoperability, innovation and competition in facilitating electronic commerce;” (Canada – Colombia RTA)	Low (Guideline; acknowledgment)	Low to Moderate (Broad area of discretion)	Low (Normative statement)	“Softer” legalization
“CHAPTER 19 DIGITAL TRADE Article 19.18: Open Government Data 1. The Parties recognize that facilitating public access to and use of government information fosters economic and social development, competitiveness, and innovation .” (US – Mexico – Canada Agreement - USMCA)	Low (Guideline; acknowledgment)	Low to Moderate (Broad area of discretion)	Low (Normative statement)	“Softer” legalization
“Article 2 Promotion of E-Commerce 1. The Parties agree to: (...) (g) protect intellectual property rights in a way that is supportive of the application of E-commerce and business innovation ; and (h) ensure that their regulatory regimes support the free flow of services, including the development of innovative ways of developing services, using electronic means.” (New Zealand – Hong Kong RTA)	High (Unconditional obligation)	Low to Moderate (Broad area of discretion)	Moderate (Coordination standards; decentralized enforcement)	Moderate legalization

Source: author’s elaboration.

Fifth, as for the **environmental provisions** that contained the keyword “innovation”, they also reflect a moderate to a softer legalization pattern (thus, more on the left side of the spectrum), as illustrated below. The provisions that contain a somewhat “harder” language mainly provide for cooperation commitments between the parties, leaving room for wide discretion of the parties as to how such collaboration will be implemented:

Table 33: Dimensions of legalization of environmental provisions of the RTAs

Examples of provisions	Obligation	Precision	Delegation	Result
<p>“CHAPTER SEVENTEEN ENVIRONMENT ARTICLE 17.6: OPPORTUNITIES FOR PUBLIC PARTICIPATION 1. Recognizing that opportunities for public participation can facilitate the sharing of best practices and the development of innovative approaches to issues of interest to the public, each Party shall ensure that procedures exist for dialogue with its public concerning the implementation of this Chapter, including opportunities for its public to: (a) suggest matters to be discussed at the meetings of the Joint Committee or, if a subcommittee on environmental affairs has been established pursuant to Article 19.2 (Joint Committee), meetings of the subcommittee; and (b) provide, on an ongoing basis, views, recommendations, or advice on matters related to the implementation of this Chapter. Each Party shall make these views, recommendations, or advice available to the other Party and the public.” (US – Morocco RTA)</p>	<p>High (Unconditional obligation)</p>	<p>Low to Moderate (Broad area of discretion)</p>	<p>Moderate (Coordination standards; decentralized enforcement)</p>	<p>Moderate legalization</p>
<p>“Article 138 Cooperation on eco-innovation and renewable energy 1. With a view to achieving sustainable development and in order to help maximise any positive and prevent any negative environmental impacts resulting from this Agreement, the Parties recognise the importance of fostering forms of innovation that benefit the environment in all sectors of their economy. Such forms of eco-innovation include energy efficiency and renewable sources of energy. 2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas: (...) (c) promotion of eco-innovation networks and clusters, including through public-private partnerships;” (EU – CARIFORUM States RTA)</p>	<p><u>Article 138.1:</u> Low (Guideline; acknowledgment) <u>Article 138.2:</u> Moderate to High (Contingent obligation)</p>	<p><u>Article 138.1:</u> Low to Moderate (Broad area of discretion) <u>Article 138.2:</u> Low to Moderate (Broad area of discretion)</p>	<p><u>Article 138.1:</u> Low (Normative statement) <u>Article 138.2:</u> Moderate (Coordination standards; decentralized enforcement)</p>	<p><u>Article 138.1:</u> “Softer” legalization <u>Article 138.2:</u> Moderate legalization</p>
<p>“ARTICLE 6.5 Measures Related to Biodiversity (...) 2. The Parties recognise the importance and the value of their biological diversity and of the</p>	<p><u>Article 6.5.2 and 6.5.3:</u> Low</p>	<p><u>Article 6.5.2 and 6.5.3:</u> Low to Moderate</p>	<p><u>Article 6.5.2 and 6.5.3:</u> Low</p>	<p><u>Article 6.5.2 and 6.5.3:</u> “Softer” legalization</p>

<p>associated traditional knowledge, innovations and practices of indigenous and local communities. Each Party shall determine the access conditions to its genetic resources in accordance with the principles and provisions contained in applicable national and international law.</p> <p>3. The Parties recognise past, present and future contributions of indigenous and local communities and their knowledge, innovations and practices to the conservation and sustainable use of biological and genetic resources and in general the contribution of the traditional knowledge of their indigenous and local communities to the culture and economic and social development of nations.</p> <p>4. The Parties shall consider collaborating in cases regarding non compliance with applicable legal provisions on access to genetic resources and traditional knowledge, innovations and practices.” (EFTA – Colombia RTA)</p>	<p>(Guideline; acknowledgment)</p> <p><u>Article 6.5.4:</u> Moderate to High</p> <p>(Contingent obligation)</p>	<p>(Broad area of discretion)</p> <p><u>Article 6.5.4:</u> Moderate to high</p> <p>(Substantial but limited issues of interpretation)</p>	<p>(Normative statement)</p> <p><u>Article 6.5.4:</u> Moderate</p> <p>(Coordination standards; decentralized enforcement)</p>	<p><u>Article 6.5.4:</u> Moderate legalization</p>
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Source: author’s elaboration.

Sixth, the provisions on **development** that mentioned “innovation” also followed a similar suit, falling from the mid to the left side of the spectrum (moderate to “softer” legalization):

Table 34: Dimensions of legalization of provisions on development of the RTAs

Examples of provisions	Obligation	Precision	Delegation	Result
<p>“PART I TRADE PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT (...) Article 8 Cooperation priorities 1. Development cooperation as provided for in Article 7 shall be primarily focused on the following areas as further articulated in the individual Chapters of this Agreement: (...) (vi) The development of CARIFORUM innovation systems, including the development of technological capacity;” (EU – CARIFORUM States RTA)</p>	<p>High</p> <p>(Unconditional obligation)</p>	<p>Low to Moderate</p> <p>(Broad area of discretion)</p>	<p><u>Article 6.5.4:</u> Moderate</p> <p>(Coordination standards; decentralized enforcement)</p>	<p>Moderate legalization</p>
<p>“Article 18.3: Innovation, Research and Development Cooperation in innovation, research and development will be focused on cooperative activities in sectors where mutual and complementary interests exist. Among other activities, the</p>	<p>Moderate to High</p> <p>(Contingent obligation)</p>	<p>Low to Moderate</p> <p>(Broad area of discretion)</p>	<p>Moderate</p> <p>(Coordination standards; decentralized enforcement)</p>	<p>Moderate legalization</p>

Parties will encourage the exchange of experts and information. Where appropriate, they will also promote partnerships in the support of the development of <u>innovative</u> products and services and activities to promote linkage, <u>innovation</u> and technology exchange.” (Australia – Chile RTA)				
“CHAPTER THIRTEEN TRADE AND SUSTAINABLE DEVELOPMENT (...) Article 13.6 Trade favouring sustainable development 1. The Parties reconfirm that trade should promote sustainable development in all its dimensions. The Parties recognise the beneficial role that core labour standards and decent work can have on economic efficiency, <u>innovation</u> and productivity, and they highlight the value of greater policy coherence between trade policies, on the one hand, and employment and labour policies on the other.” (EU – Korea RTA)	Low (Guideline; acknowledgment)	Low to Moderate (Broad area of discretion)	Low (Normative statement)	“Softer” legalization
“CHAPTER 23 DEVELOPMENT (...) Article 23.5: Education, Science and Technology, Research and <u>Innovation</u> 1. The Parties recognise that the promotion and development of education, science and technology, research and <u>innovation</u> can play an important role in accelerating growth, enhancing competitiveness, creating jobs, and expanding trade and investment among the Parties. 2. The Parties further recognise that policies related to education, science and technology, research and <u>innovation</u> can help Parties maximise the benefits derived from this Agreement. Accordingly, Parties may encourage the design of policies in these areas that take into consideration trade and investment opportunities arising from this Agreement, in order to further increase those benefits. Those policies may include initiatives with the private sector, including those aimed at developing relevant expertise and managerial skills, and enhancing enterprises’ ability to transform <u>innovations</u> into competitive products and start-up businesses. (CPTPP)	Low (Guideline; recommendation; acknowledgment)	Low to Moderate (Broad area of discretion)	Low to Moderate (Recommendation)	“Softer” legalization

Source: author’s elaboration.

Specifically concerning the CPTPP, another important feature that corroborates the conclusion reached above is the fact that it explicitly set forth in its article 23.9¹⁰¹ that no Party shall have recourse to dispute settlement under Chapter 28 (on Dispute Settlement) of that agreement for any matter arising under the Chapter 23 (on “Development”), referred to in Table 34 above, thus reinforcing the “softer” legalization aspects previously identified.

Seventh, concerning the provisions on **trade barriers** and **on medical and pharmaceutical issues**, two different approaches were found: one that was leaning more towards a “softer” legalization – aiming at loosely drawing a relationship between ‘good regulatory practice’ and the promotion of innovation –, whereas the other had a more focused and concrete approach (on electronics in the case of trade barriers, and on pharmaceutical products and medical devices), providing for unconditional obligations (with the term “shall”), though in a manner that still left room for further regulation on how to implement its terms:

Table 35: Dimensions of legalization of provisions on trade barriers of the RTAs

Examples of provisions	Obligation	Precision	Delegation	Result
<p>“CHAPTER NINE TECHNICAL BARRIERS TO TRADE (...) ARTICLE 9.10: DEFINITIONS For purposes of this Chapter: (...) good regulatory practice means a practice that: (i) serves clearly identified policy goals, and is effective in achieving those goals; (ii) has a sound legal and empirical basis; (iii) takes into consideration the distribution of a regulation’s effects across society, taking economic, environmental, and social effects into account; (iv) minimizes costs and market distortions; (v) promotes <u>innovation</u> through market incentives and goal-based approaches; (vi) is clear, simple, and practical for users; (vii) is consistent with the Party’s other regulations and policies; and (viii) is compatible as far as possible with domestic and international competition, trade, and investment principles.” (Korea – US RTA)</p>	<p>Low (Guideline)</p>	<p>Low to Moderate (Broad area of discretion)</p>	<p>Low (Normative statement)</p>	<p>“Softer” legalization</p>
<p>“CHAPTER 5 TECHNICAL BARRIERS TO TRADE (...) ANNEX 5-A ELECTRONICS (...) Article 3 – <u>Innovation</u> 1. No Party shall prevent or unduly delay the placing on its market of a</p>	<p>High (Unconditional obligation)</p>	<p>Moderate to high (Substantial but limited issues of interpretation)</p>	<p>Moderate (Coordination standards; decentralized enforcement)</p>	<p>Moderate to “harder” legalization</p>

¹⁰¹ “Article 23.9: Non-Application of Dispute Settlement.
 No Party shall have recourse to dispute settlement under Chapter 28 (Dispute Settlement) for any matter arising under this Chapter.”

<p>product on the ground that it incorporates a new technology or a new feature which has not yet been regulated.</p> <p>2. Paragraph 1 shall not prejudice the right of the importing Party, if it demonstrates duly substantiated concerns to the supplier, to require evidence that the new technology or new feature concerned does not create a risk for safety or EMC or any other legitimate objective as listed in Article 2.2 of the TBT Agreement.”</p> <p>(Singapore – Türkiye RTA)</p>				
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Source: author’s elaboration.

Table 36: Dimensions of legalization of provisions on medical or pharmaceutical issues of the RTAs

Examples of provisions	Obligation	Precision	Delegation	Result
<p>“ANNEX 2-C PHARMACEUTICALS 1. AGREED PRINCIPLES The Parties are committed to facilitating high quality health care and continued improvements in public health for their nationals. In pursuing these objectives, the Parties are committed to the following principles: (a) the important role played by <u>innovative</u> pharmaceutical products in delivering high quality health care; (b) the importance of research and development in the pharmaceutical industry and of appropriate government support, including through intellectual property protection and other policies; (c) the need to promote timely and affordable access to <u>innovative</u> pharmaceuticals through transparent, expeditious, and accountable procedures, without impeding a Party’s ability to apply appropriate standards of quality, safety, and efficacy; and (d) the need to recognize the value of <u>innovative</u> pharmaceuticals through the operation of competitive markets or by adopting or maintaining procedures that appropriately value the objectively demonstrated therapeutic significance of a pharmaceutical.</p> <p>(...) 4. REGULATORY COOPERATION The Parties shall seek to advance the existing dialogue between the</p>	<p>Low to Moderate</p> <p>(Guideline; acknowledgment; hortatory obligation to advance existing dialogue)</p>	<p>Low to Moderate</p> <p>(Broad area of discretion)</p>	<p>Low</p> <p>(Normative statement)</p>	<p>“Softer” legalization</p>

<p>Australian Therapeutic Goods Administration and the U.S. Food and Drug Administration with a view to making innovative medical products more quickly available to their nationals.” (US – Australia RTA)</p>				
<p>“ANNEX 2-C PHARMACEUTICAL PRODUCTS AND MEDICAL DEVICES ARTICLE 1 – General Provisions The Parties confirm the following shared objectives and principles of: (...) (c) promoting innovation relating to safe and effective pharmaceutical products and medical devices, and promoting timely access to such pharmaceutical products and medical devices, through transparent and accountable procedures, without impeding a Party's ability to apply high standards of safety, efficacy and quality; and (...)” (EU – Singapore RTA)</p>	<p>Low to Moderate (Guideline; principle; hortotary obligation)</p>	<p>Low to Moderate (Broad area of discretion)</p>	<p>Moderate (Coordination standards; decentralized enforcement)</p>	<p>“Softer” legalization</p>
<p>“ANNEX 2-D PHARMACEUTICAL PRODUCTS AND MEDICAL DEVICES (...) Article 2 – Access to innovation To the extent that health care authorities in a Party operate or maintain procedures for listing pharmaceutical products or medical devices, for indications entitled to reimbursement, or for setting the amount of reimbursement or any measures related to pricing [1] for pharmaceutical products or medical devices under health care programmes they operate, that Party shall: (a) ensure that the procedures, rules, criteria and implementing guidelines that apply to the listing of pharmaceutical products or medical devices, indications for reimbursement, setting the amount of reimbursement, or any measures related to listing, pricing and/or reimbursement for pharmaceutical products or medical devices are fair, transparent, reasonable and non-discriminatory [2]; and (b) ensure that the health authorities’ determination of pricing and reimbursement for a pharmaceutical product or medical device, once approved by the appropriate regulatory authority as safe, efficacious and of good quality, and if based on public bodies’ or quasi-public bodies’ involvement, shall:</p>	<p>Moderate to High (Contingent obligation)</p>	<p>Moderate to high (Substantial but limited issues of interpretation)</p>	<p>Moderate (Coordination standards; decentralized enforcement)</p>	<p>Moderate to “harder” legalization</p>

<p>(i) appropriately recognise the value of the patented pharmaceutical product or medical device in the amount of pricing and reimbursement it provides;</p> <p>(ii) permit a manufacturer of the pharmaceutical product or medical device to apply, based on scientific evidence of safety, efficacy, quality and benefits, for an increased amount of pricing and reimbursement over those provided for comparator products, if any, used to determine the amount of reimbursement;</p> <p>(iii) permit a manufacturer of the pharmaceutical product or medical device, after a decision on the pricing/reimbursement is made, to apply for an increased amount of reimbursement for the product based on scientific evidence the manufacturer provides on the product’s safety, efficacy, quality and benefits;</p> <p>(iv) permit a manufacturer of the pharmaceutical product or medical device to apply for the amount of pricing and reimbursement and price adjustment for additional medical indications for the product, based on scientific evidence the manufacturer provides on the product’s safety, efficacy, quality and benefits; and</p> <p>(v) in case a Party adjusts ex officio the amount of pricing/reimbursement of the pharmaceutical products or medical devices for external causes in specific circumstances, including drastic changes in economic indicators, permit a manufacturer of the pharmaceutical product or medical device to submit opinions regarding the adjustment before the adjustment is adopted.” (EU – Korea RTA)</p>				
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Source: author’s elaboration.

Eighth, regarding the provisions on **SMEs**, the provisions varied from a moderate to a “softer” degree of legalization – being the moderate ones centered on cooperation commitments between the parties:

Table 37: Dimensions of legalization of provisions SMEs of the RTAs

Examples of provisions	Obligation	Precision	Delegation	Result
<p>“CHAPTER 23 SMALL AND MEDIUM-SIZED ENTERPRISES Article 23.1: General Provisions (...) 3. The Parties also recognise the relevance of:</p>	<p>Low (Guideline; acknowledgment)</p>	<p>Low to Moderate (Broad area of discretion)</p>	<p>Low (Normative statement)</p>	<p>“Softer” legalization</p>

(...) (c) assessing the effects of globalisation on SMEs and, in particular, examining issues related to SMEs' access to financing and to support for innovation .” (Peru – Australia RTA)				
“ARTICLE 41 Micro, small and medium-sized enterprises (...) Areas of cooperation 2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas: (a) capacity building and institutional support; (b) technology development and transfer, innovation , information exchange and networks and marketing; (...)” (UK – Eastern and Southern Africa States RTA)	Moderate to High (Contingent obligation)	Low to Moderate (Broad area of discretion)	Moderate (Coordination standards; decentralized enforcement)	Moderate legalization
“Article 9.5 Cooperation between Small and Medium-Sized Enterprises With the view to further enhance trade and economic activities, the Parties shall give priority to promoting business and investment opportunities as well as joint ventures between their SMEs. Within this context, the Parties shall, inter alia: (...) (d) collaborate in assisting capacity building of high skilled workers and technicians such as in construction and construction related services, innovation , research and development, IT and manufacturing sectors;” (Türkiye – Malaysia RTA)	High (Unconditional obligation)	Low to Moderate (Broad area of discretion)	Moderate (Coordination standards; decentralized enforcement)	Moderate legalization

Source: author's elaboration.

Finally, as for the provisions on **social aspects** and/or on **subsidies** that mention “innovation”, they lean towards a “softer” legalization, acknowledging that core labor standards can have a beneficial role on innovation, and/or providing for the possibility (but not an obligation) to adopt measures to encourage cooperation between the parties to promote innovative approaches on social policy:

Table 38: Dimensions of legalization of provisions on social aspects of the RTAs

Examples of provisions	Obligation	Precision	Delegation	Result
“CHAPTER 5 Social aspects (...) Article 191 Objectives and multilateral commitments (...) 3. The Parties recognise the beneficial role that core labour standards and decent work can have	Low (Guideline; acknowledgment)	Low to Moderate (Broad area of discretion)	Low (Normative statement)	“Softer” legalization

on economic efficiency, innovation and productivity, and they highlight the value of greater policy coherence between trade policies, on the one hand, and employment and social policies on the other.” (EU – CARIFORUM States RTA)				
TITLE X SOCIAL POLICY (...) Article 153 (ex Article 137 TEC) (...) 2. To this end, the European Parliament and the Council: (a) may adopt measures designed to encourage cooperation between Member States through initiatives aimed at improving knowledge, developing exchanges of information and best practices, promoting innovative approaches and evaluating experiences, excluding any harmonisation of the laws and regulations of the Member States;” (EU Treaty)	Low (Guideline; recommendation)	Low to Moderate (Broad area of discretion)	Moderate (Coordination standards; decentralized enforcement)	“Softer” to Moderate legalization

Source: author’s elaboration.

Table 39: Dimensions of legalization of provisions on subsidies of the RTAs

Examples of provisions	Obligation	Precision	Delegation	Result
“CHAPTER 10 Competition policy (...) Section B – Subsidies Article 10.4 – Principles (...) 2. An illustrative list of public policy objectives for which a Party may grant subsidies, subject to the conditions set out in this Section, includes the following: (...) (d) facilitating the development of certain economic activities or of certain economic areas, including but not limited to, subsidies for clearly defined research, development and innovation purposes, subsidies for training or for the creation of employment, subsidies for environmental purposes, subsidies in favour of small and medium-sized enterprises as defined in the Parties' respective legislations; and (...) (EU – Vietnam RTA)	Low (Guideline; principles)	Low to Moderate (Broad area of discretion)	Low (Normative statement)	“Softer” legalization

Source: author’s elaboration.

Based on the illustrative exercises above, the provisions therein analyzed do not seem to fall in either of the extremes of the spectrum considering all three dimensions of legalization (obligation; precision; delegation). Meaning that, under the said framework, they are not either strictly “hard law”, nor anarchical. Some lean towards the right side of the spectrum on the

obligation dimension, though lacking precision; others seem very loose both on the obligation and the precisions dimensions, with no clear indication on the delegation dimension.

As stated, that does not equal to an absence of norms on the subject. It could be that the choice of drafting provisions that fall in the middle or lower reaches of the spectrum of legalization best reflects and accommodates the interests and priorities of the parties at the time of the negotiation and signing of those agreements – which could suggest that perhaps innovation was not at the forefront of the priorities and concerns of the parties of those agreements.

In the case of the CPTPP, for instance, the wording of its article 23.5 (on development) mentioned in Table 34 above and of article 23.9 (on dispute resolution) is exactly the same as the original wording of the same articles from the agreement that preceded it – the Trans-Pacific Partnership (TPP) Agreement¹⁰², which initially involved the US and 11 other Asia-Pacific countries¹⁰³ (before the US withdrew from the TPP, in 2017¹⁰⁴). Before such withdrawal, the Obama Administration had manifested the intention of including, for the first time in any US trade agreement, a chapter dedicated specifically to development – and, in that chapter, the US government had indicated the intention of seeking an agreement on cooperative development activities “*to promote broad-based economic growth and sustainable development*”, and mechanisms for collaboration and facilitation of capacity-building activities “*in order to help TPP workers and businesses, including SMEs and micro-enterprises participate in global trade and take advantage of the agreement*”.¹⁰⁵ The “innovation” element was not at the forefront of that chapter on development.

Another possibility could be that the parties to those agreements did not feel the need to further regulate innovation in trade agreements in an express and more detailed fashion, and to lean towards a harder legalization. In fact, it is hard to ascertain the precise motives that guided the decisions underlying the legal texts of the trade agreements under analysis, as the preparatory works and statements of the negotiation phase – especially those that based more strategic positions – are not often made public by the participant parties.

In that context, would it be reasonable to assume that the parties implicitly adopted the presumption that there is a right to innovation (and/or to the access to innovative goods and/or

¹⁰² Available at: <<https://ustr.gov/sites/default/files/TPP-Final-Text-Development.pdf>>. Accessed: 29 apr. 2023.

¹⁰³ Namely, Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam.

¹⁰⁴ Cf. <<https://ustr.gov/about-us/policy-offices/press-office/press-releases/2017/january/US-Withdraws-From-TPP>>. Accessed: 29 apr. 2023.

¹⁰⁵ Cf. <<https://ustr.gov/tp/Summary-of-US-objectives>>. Accessed: 29 apr. 2023.

services)? Going one step back, is there even a right to innovation under international law? The next section will dive into that pivotal though often ignored question.

1.2 Is there a right to “innovation”? Perspectives under international law and the International Trade Agreements herein analyzed

Under international law, is there a “right” to innovation? If so, what does it encompass, and who is entitled to it?

First, said question could be further detangled, as it leads to the issue of which right is precisely being addressed – whether it is the right to the freedom to innovation for entrepreneurs, or the right to access to innovative goods and/or services, the right of a State to develop innovation internally, or none of those options (or all the above)? There seems to be different views on the issue, thus the present thesis does not intend to delve into whether there is a right or wrong answer to that inquiry and will instead limit itself to briefly presenting some of those views for contextual purposes, with the intent of drawing some parallels with presumptions and affirmations found in the international trade agreements herein assessed.

AERNI (2015), in his book “*Entrepreneurial Rights as Human Rights: Why Economic Rights Must Include the Human Right to Science and the Freedom to Grow Through Innovation*”, argues that even though none of the basic instruments of international human rights law explicitly refers to “innovation” or “entrepreneurship”, that “*innovation defined as the application and diffusion of knowledge to enhance economic opportunities (Juma and Yee-Cheong 2015) has been implicitly included in the UDHR (Article 2) and later in the ICESCR (Article 15)*”¹⁰⁶ – being the UDHR the United Nations Universal Declaration of Human Rights of 1948 (which is a legally non-binding document), and the ICESCR the International Covenant on Economic, Social and Cultural Rights (which was signed in 1966, but entered into force in 1976, and is legally binding to State parties). The provisions abovementioned read as follows:

¹⁰⁶ AERNI, Philipp. Entrepreneurial rights as human rights: Why economic rights must include the human right to science and the freedom to grow through innovation, Banson: Cambridge, p. 48-49, 2015. Available at: <https://www.researchgate.net/publication/280013575_Entrepreneurial_rights_as_human_rights_Why_economic_rights_must_include_the_human_right_to_science_and_the_freedom_to_grow_through_innovation?enrichId=rgreq-30f7f39482e865dfce49af96d28afbe-XXX&enrichSource=Y292ZXJQYWdlOzI4MDAxMzU3NTtBUzoyNTA3NTQxNDU0NTIwMzZAMTQzNjc5NTg1NTIxNg%3D%3D&el=1_x_3&_esc=publicationCoverPdf>. Accessed: 29 apr. 2023.

UDHR Article 27

1. Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and **to share in scientific advancement and its benefits.**
2. Everyone has **the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.**

ICESCR Article 15

1. The States Parties to the present Covenant recognize the right of everyone:
 - a. To take part in cultural life;
 - b. To enjoy the benefits of scientific progress and its applications;**
 - c. To benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.**
2. The steps to be taken by the States Parties to the present Covenant to achieve the full realization of this right shall include those necessary for the conservation, the development and the diffusion of science and culture.
3. The States Parties to the present Covenant undertake to respect the freedom indispensable for scientific research and creative activity.
4. The States Parties to the present Covenant recognize the benefits to be derived from the encouragement and development of international contacts and co-operation in the scientific and cultural fields.

AERNI pointed out that the right provided for under article 27(1) of the UDHR has been referred to as ‘**the right to science and culture**’ or as ‘**the right to enjoy the benefits of scientific progress**’, based on the wording of article 15(1) of the ICESCR, which builds on article 27 of the UDHR. AERNI referred to ‘the right to enjoy the benefits of scientific progress’ enshrined in article 15(1)(b) of the ICESCR as ‘**REBSP**’ and employed the term ‘right to science and culture’ in referring to article 27 of the UDHR or to article 15 of the ICESCR more generally.

As a side note, it is interesting to note that “**culture**” and “**science**” are mentioned **together**, in the same provision. On this point, AERNI referred to Farida Shaheed, the UN Special Rapporteur in the field of cultural rights, according to whom the REBSP should not be analyzed in isolation from the right to culture, since both ‘relate to the pursuit of knowledge and understanding and to human creativity in a constantly changing world’ and are therefore strongly linked. The fact that both the right to culture and the right to science have been included in the same articles in the UDHR, as well as in the ICESCR, should not be ignored – instead, as noted by Shaheed, the legal interpretation of the right to science should include both rights.¹⁰⁷

From a historical perspective, it could seem counter-intuitive that the UDHR – which was proclaimed in the context of the post-Second World War – included a provision that put the right to share in scientific advancement amongst the essential rights, after several scientific advancements had been employed in a negative sense in a bellic context. Notwithstanding that,

¹⁰⁷ Id., p. 50, footnote 2.

AERNI argued that article 27 of the UDHR could be seen as “*an attempt to counterbalance the general sense of abuse with a reminder that science can also be a tool of empowerment and a means to enhance the reach of human rights protection by making basic goods more widely accessible*”, understanding science as “*inherently beneficial to humanity and as a good that should be accessible to and shared with everybody*” (p. 51). AERNI goes even further to argue that “*UDHR Article 27(1) takes a stand based on the premise that every human being is entitled to **participate in and access** cultural life, as well as scientific advancement and its benefits*” (p. 53).

As a matter of fact, the understanding of science, education and culture as drivers of peace had already been reflected in the creation of UNESCO (the United Nations Educational, Scientific and Cultural Organization) in 1945, a specialized UN agency aimed at contributing to peace by promoting international collaboration in those three fields.

Even though the wording of article 15(1) of the ICESCR and of article 27(1) of the UDHR are slightly different, AERNI argues that their essence is the same – adding that the last three paragraphs of ICESCR article 15 provide for steps to be taken by State parties in order to guarantee full protection of the right to science and culture *to all human beings*, not only to scientists:

Table 40: Comparative between UDHR article 27 and ICESCR article 15

UDHR	ICESCR
27.1. Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.	15.1. The States Parties to the present Covenant recognize the right of everyone: a. To take part in cultural life; b. To enjoy the benefits of scientific progress and its applications;
27. 2. Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.	c. To benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author. 2. The steps to be taken by the States Parties to the present Covenant to achieve the full realization of this right shall include those necessary for the conservation, the development and the diffusion of science and culture. 3. The States Parties to the present Covenant undertake to respect the freedom indispensable for scientific research and creative activity. 4. The States Parties to the present Covenant recognize the benefits to be derived from the encouragement and development of international contacts and co-operation in the scientific and cultural fields

The fact that the terms and concepts used in the provisions above – such as “scientific progress”, “its applications” and “the benefit” – were not defined in the Covenants in question

meant that they shall be interpreted pursuant to article 31 of the VCLT – i.e. in good faith and in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in light of its objective and purpose. In this sense, AERNI presented some definitions to those terms found in the literature – for instance, ‘science’ as a collective enterprise of researchers to advance fundamental knowledge about the world, being the knowledge generated from scientific research testable and refutable; ‘scientific progress’ as the collective production of scientific knowledge by researchers who build on each other’s findings following strict methodological criteria. The term ‘application’ may be interpreted as referring to technology, according to the literature referred to by AERNI (p. 55).

It is also noteworthy that ‘the right to enjoy the benefits of scientific progress’ has both an active and passive aspect. The active side would be the right of everyone to participate in and to contribute to the development of scientific knowledge, be it as participants in decision making or even directly by engaging in scientific research. In contrast, there is also a passive side inasmuch as it entitles all human beings (regardless of whether the person contributed or not to scientific research) to access the fruits (i.e. the benefits) of scientific progress.

In addition to that, according to EARNI, the REBSP also protects entrepreneurs who wish to draw on the pool of scientific knowledge in order to innovate – in other words, the author argued that ICESCR article 15(1), inasmuch as it touches on the protection of intellectual property, reflects the insight that the process of knowledge creation and innovation requires an IP rights system that enables innovators to reimburse the fixed costs spent on bringing innovation into being through investment in R&D (pp. 55-56).

EARNI also argues that, besides the right to benefit from scientific progress, ICESCR article 15 could also encompass the right to make economic use of knowledge to grow through innovation – which he referred to as the ‘**right to grow through innovation**’ (RTGI), considering that, according to EARNI’s view, “*new knowledge as such ultimately has no tangible value to humankind unless someone makes use of it*” (p. 57).

According to the said author, such right must be understood as **a bundle of rights** that ensures the freedom to grow through innovation – as it “*requires a legal environment that does not discriminate against the entrepreneur for being an outsider due to low social status, race or gender, that recognizes him as a person before the law, that guarantees access to justice and that ensures personal security*” – all of which is entrenched in various provisions of the UDHR (articles 1, 2, 3, 5, 7, 8, 10, 13, and 15).

Historically, according to EARNI, the RTGI may have its roots in the initiatives of medieval entrepreneurs, who felt constrained by the existing hierarchical law that failed to

recognize equal individual rights (p. 61). Furthermore, the aforementioned author believes that the ‘right to grow through innovation’ is implicitly present in some of the most liberal democratic constitutions – such as the **Swiss Constitution** when it provides for in article 64 that “*the Confederation shall promote scientific research and innovation*” – which, according to EARNI, reflects the right to grow through innovation.¹⁰⁸ According to the said author, such fact (that it is implicitly present in some of the most liberal constitutions) indicates there is, or rather was, “*a widespread awareness that innovative entrepreneurs and their growth-oriented businesses can contribute to increasing access to autonomy- and welfare-enhancing human rights*” (p. 65).

The **Charter of Economic Rights and Duties of States**¹⁰⁹, adopted at the 29th Session of the UN General Assembly (1974-1975), in turn, sets forth under article 13 – in rather generic terms – that **all States** (since it is a Charter of Rights and Duties *of States*, and not of *individuals*) are the ones entitled to “*the right to benefit from the advances and development in science and technology for the acceleration of its economic and social development*”. **The term “innovation” is not mentioned in the said Charter.** As for the duties, it sets forth what seems like recommendations (due to the choice of term “*should*” instead of “*must*” or “*shall*”), to “*promote international scientific and technological co-operation and the transfer of technology*”, to “*facilitate the access of developing countries to the achievements of modern science and technology*”, to “*co-operate with the developing countries in the establishment, strengthening and development of their scientific and technological infrastructures and their scientific research and technological activities*”, amongst others:

Article 13

1. Every State has the right to benefit from the advances and development in science and technology for the acceleration of its economic and social development.
2. All States should promote international scientific and technological co-operation and the transfer of technology, with proper regard for all legitimate interests including, inter alia, the rights and duties of holders, suppliers and recipients of technology. In particular, all States should facilitate the access of developing countries to the achievements of modern science and technology, the transfer of technology and the creation of indigenous technology for the benefit of the developing countries in forms and in accordance with procedures which are suited to their economies and their needs.
3. Accordingly, developed countries should co-operate with the developing countries in the establishment, strengthening and development of their scientific and technological infrastructures and their scientific research and technological activities so as to help to expand and transform the economies of developing countries.

¹⁰⁸ Article 64 of the Swiss Constitution was adopted by popular vote on 21 May 2006, and is in force since 21 May 2006. Available at: <<https://www.fedlex.admin.ch/eli/cc/1999/404/en>>. Accessed: 29 apr. 2023.

¹⁰⁹ Available at: <<https://digitallibrary.un.org/record/190150?ln=en>>. Accessed: 29 apr. 2023.

4. All States should co-operate in research with a view to evolving further internationally accepted guidelines or regulations for the transfer of technology, taking fully into account the interest of developing countries.

In 1986, the International Law Association (ILA) adopted the **Declaration on Progressive Development of Principles of Public International Law relating to a New International Economic Order** (known as the **1986 Seoul Declaration**), a non-governmental initiative that embodied 13 principles (for *States*) that could be broadly divided under two categories: sovereign equality (which could encompass the principles of permanent sovereignty, equity, equality or non-discrimination, participatory equality and substantive equality) and the duty to cooperate (that could embrace the principles of solidarity, duty to cooperate for global development, the right to development, the right to benefit from science and technology and common heritage of mankind). Even though **the said Declaration does not expressly mention the term “innovation”**, it seems reasonable to argue that some of its provisions could be deemed relevant to the issue at hand.

In this sense, for instance, the principle of *“permanent sovereignty over natural resources, economic activities and wealth”* emanates from the principle of self-determination of a State, which *“implies the national jurisdiction of a State over natural resources, economic activities and wealth without exempting the State from the application of the relevant principles and rules of international law”* (cf. article 5.3 of the Declaration). The *“right to development”* provided for in article 6 is based on the right to self-determination of peoples, and it *“implies the co-operation of States for the elaboration of civil, cultural, economic, political and social standards, embodied in the Charter of the United Nations and the International Bill of Human Rights (...)”* (cf. art. 6.3 of the Declaration). In other words, it is reasonable to argue that both principles could support the right of States to establish, promote and foster domestic public development policies – which could encompass, for instance, innovation policies.

In turn, the *“right to benefit from science and technology”* set forth under art. 11 of the said Declaration determines that *“every State has the right to benefit from the advances and development in science and technology for the acceleration of its economic and social development in conformity with any internationally recognized right of intellectual property”* (cf. art. 11.1) – whose text is almost identical to the one found in art. 13.1 of the **Charter of Economic Rights and Duties of States** (1974) abovementioned (with exception of the final excerpt, which is found only in the 1986 Seoul Declaration – i.e. *“with any internationally recognized right of intellectual property”*).

Another document worth mentioning is the **Declaration on the Right to Development**¹¹⁰, adopted in 1986 by General Assembly Resolution 41/128. Though that Declaration also does not expressly mention the term “innovation”, in a similar fashion as the 1986 Seoul Declaration, it provides for the “*right to development*” under its article 1st – which is entitled by “*every human person and all peoples*”, and encompasses the right of participation, contribution and enjoyment of different aspects of development, including the economic one, as well as the right to self-determination. Such right also includes the “*right to full sovereignty over all of their natural wealth and resource*”, which is similar to the wording of the principle of “*permanent sovereignty over natural resources, economic activities and wealth*” set forth in the 1986 Seoul Declaration:

Article 1

1. The **right to development** is an inalienable human right by virtue of which **every human person and all peoples** are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized.
2. The human right to development also implies the full realization of the **right of peoples to self-determination**, which includes, subject to the relevant provisions of both International Covenants on Human Rights, the exercise of their inalienable **right to full sovereignty over all their natural wealth and resources**.

Moreover, article 2 of the **Declaration on the Right to Development** sets forth that States are also entitled to the right and duty “*to formulate appropriate national development policies that aim at the constant improvement of the well-being of the entire population and of all individuals, on the basis of their active, free and meaningful participation in development and in the fair distribution of the benefits resulting therefrom.*” It is reasonable to argue that innovation policies could be one of those national development policies, provided they could enhance the well-being of the population, and that there is “*fair distribution of the benefits resulting therefrom*” (which seems a bit abstract as there is no further explanation of what would be considered as fair criteria for such distribution).

In this sense, the document “*Frequently Asked Questions on the Right to Development*”¹¹¹ published by the Office of the United Nations High Commissioner for Human Rights (OHCHR) (2016) in fact expressly acknowledges the role that scientific innovation and technology can play “*in the fulfillment of human rights*” as well as to meet the Declarations’ mandate for international cooperation and equitable distribution, as highlighted below:

¹¹⁰ Available at: <<https://www.ohchr.org/en/instruments-mechanisms/instruments/declaration-right-development#:~:text=The%20right%20to%20development%20is%20an%20inalienable%20human%20right%20by, freedoms%20can%20be%20fully%20realized.>>. Accessed: 29 apr. 2023.

¹¹¹ Available at: <https://www.ohchr.org/sites/default/files/Documents/Publications/FSheet37_RtD_EN.pdf>. Accessed: 29 apr. 2023.

“The Declaration’s mandate for international cooperation and equitable distribution **also requires that technology and scientific innovation that can play a role in the fulfilment of human rights should be equitably shared in a manner that takes into account the needs of the most vulnerable.** In practice, this requires a system of intellectual property protection that encourages **innovation** while ensuring that life-saving technologies are not withheld from the poor, vulnerable, marginalized and excluded.” (p. 16)

Besides the *national* policies abovementioned, article 4(1) of the same Declaration¹¹² also determines that States have the duty “*to formulate international development policies with a view to facilitating the full realization of the right to development*”, both individually and collectively. Article 4(2) mentions the importance of international co-operation to developing countries, however, it does not provide further concrete details neither on which international policies could be considered, nor on what kind of co-operation efforts could be implemented – which could suggest that each State has broad discretion to elect its own international development policies and co-operation initiatives.

The international legal instruments mentioned so far in this Section – mostly human rights instruments – though with no express mention of the term “innovation”, seem to *implicitly* acknowledge either the importance and the role of innovation for development purposes, and/or that there is a right to innovation and/or to the benefits resulting from innovation, which is entitled both to States and to individuals.

The **Convention on Biological Diversity** (CBD)¹¹³ (adopted in 1992), in turn, though it has not defined what it understands as “innovation”, has explicitly recognized that benefits may arise from the use of “*innovations (...) relevant to the conservation of biological diversity and the sustainable use of its components*”, as well as the desirability of sharing equitably such benefits, as set forth in the Preamble of the said Convention:

“Recognizing the close and traditional dependence of many indigenous and local communities embodying traditional lifestyles on biological resources, and the desirability of sharing equitably benefits arising from the use of traditional knowledge, **innovations** and practices relevant to the conservation of biological diversity and the sustainable use of its components,”

Moreover, the Convention in question has in its article 8 provided for the importance of respecting, preserving and maintaining innovations of “*indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity*”, as well of promoting their wider application with the approval and involvement of

¹¹² Article 4(1): “*States have the duty to take steps, individually and collectively, to formulate international development policies with a view to facilitating the full realization of the right to development.*”

¹¹³ Available at: <<https://www.cbd.int/doc/legal/cbd-en.pdf>>. Accessed: 29 apr. 2023.

their holders, and to encourage the equitable sharing of the benefits arising therefrom. In addition to that, it set out that the body responsible to provide advice to the parties relating to the implementation of the Convention shall identify innovative technologies and know-how relating to the conservation of sustainable use of biological diversity, as highlighted below:

“Article 8. In-situ Conservation

Each Contracting Party shall, as far as possible and as appropriate:

(...) (j) Subject to its national legislation, respect, preserve and maintain knowledge, **innovations** and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, **innovations** and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, **innovations** and practices. (...)

Article 25. Subsidiary Body on Scientific, Technical and Technological Advice

(...) 2. Under the authority of and in accordance with guidelines laid down by the Conference of the Parties, and upon its request, this body shall:

(...) (c) Identify **innovative**, efficient and state-of-the-art technologies and know-how relating to the conservation and sustainable use of biological diversity and advise on the ways and means of promoting development and/or transferring such technologies;”

Another international instrument that has explicitly mentioned “innovation” is the **Paris Agreement**¹¹⁴, adopted in 2015 and in force since November 2016, which sets long-term goals to reduce global greenhouse gas emissions and to work together to adapt to the impacts of climate change¹¹⁵. In its article 10, it highlights the view that innovation is “*critical for an effective, long-term global response to global climate change and promoting economic growth and sustainable development*”. It also connects innovation to collaborative approaches to research and development and to the access to technology, as evidenced in the excerpt below:

“5. Accelerating, encouraging and enabling **innovation** is critical for an effective, long-term global response to climate change and promoting economic growth and sustainable development. Such effort shall be, as appropriate, supported, including by the Technology Mechanism and, through financial means, by the Financial Mechanism of the Convention, for collaborative approaches to research and development, and facilitating access to technology, in particular for early stages of the technology cycle, to developing country Parties.”

Going back to trade agreements, one instrument that must be mentioned is the **TRIPS Agreement** (1994) – an agreement on trade-related aspects of IP rights. As previously mentioned, contrary to most of the agreements previously nominated, it does expressly mention

¹¹⁴ The text of the Paris Agreement is available at: <https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf>. Accessed: 29 apr. 2023.

¹¹⁵ Cf. <<https://www.un.org/en/climatechange/paris-agreement>>. Accessed: 29 apr. 2023.

“innovation” in its article 7¹¹⁶ (“Objectives” – as “*technological innovation*”), placing its promotion as a goal to be achieved through the protection and enforcement of IP rights, aiming at “*the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations*”. Notwithstanding that, the TRIPS Agreement does not expressly place “innovation” as a right itself.

In other words, it seems reasonable to state that the TRIPS Agreement is coherent with the human rights law instruments herein mentioned in the sense that **they all acknowledge the existence of a link between “innovation” and social and economic welfare**, and it crystalizes such understanding amongst the WTO members (as they are subject to the WTO’s trade rules).

The understanding of “innovation” as a means to achieve something else – such as “development” – has also been put forward in the Sustainable Development Goals (SDGs)¹¹⁷ formulated by the United Nations General Assembly (UNGA) in 2015, particularly in Goals 8 and 9 – that deal respectively with “decent work and economic growth” and “industry, **innovation** and infrastructure”:

“**Goal 8.** Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

(...)

8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and **innovation**, including through a focus on high-value added and labour-intensive sectors

8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and **innovation**, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.”

“**Goal 9.** Build resilient infrastructure, promote inclusive and sustainable industrialization and foster **innovation**.

(...)

9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging **innovation** and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.

¹¹⁶ TRIPS, article 7. “Objectives. The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.”

¹¹⁷ “*The Sustainable Development Goals are a call for action by all countries – poor, rich and middle-income – to promote prosperity while protecting the planet. They recognize that ending poverty must go hand-in-hand with strategies that build economic growth and address a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection.*” Cf. <<https://www.un.org/sustainabledevelopment/>>. The SDGs are available at: <https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_70_1_E.pdf>. Accessed: 29 apr. 2023.

(...) 9.b Support domestic technology development, research and **innovation** in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities,”

In contrast, depending on the sector, there may be specific regulations that present different views on the question of whether there is a right to innovation. For instance, in the medical field, the **European Charter of Patients’ Rights (ECPR)**¹¹⁸ – drafted in 2002 by the Active Citizenship Network (ACN) in collaboration with other citizenship organizations and experts from 12 EU countries – set forth rights of patients and all citizens residing in the EU with respect to healthcare, based on the understanding that despite the differences in the various healthcare systems, similar rights were at risk in all EU countries. In that Charter, it is noteworthy that it included amongst its rights the “**right to innovation**”, more specifically the right of access to innovative procedures “*independently of economic or financial considerations*”, as seen below:

“10 – Right to Innovation

Each individual has the right of access to **innovative** procedures, including diagnostic procedures, according to international standards and independently of economic or financial considerations.

The health services have the duty to promote and sustain research in the biomedical field, paying particular attention to rare diseases. Research results must be adequately disseminated.”

Furthermore, “innovation” also comes up in the Charter in the “*right to information*” – in the sense that every individual has the right of direct access to information on scientific research, pharmaceutical care and technological innovations regarding their state of health, the health services and how to use them:

“3 – Right to Information

Every individual has the right to access to all kind of information regarding their state of health, the health services and how to use them, and all that scientific research and technological **innovation** makes available. (...)

This information can come from either public or private sources, provided that it meets the criteria of accuracy, reliability and transparency.”

In addition, another topic that has been the subject of discussion in the literature mainly focused on business and organizational studies is “**open innovation**”, often contrasted with discussions on the protection of IP, especially patent protection. “Open innovation” seems to have two main characteristics, according to that literature: that openness is relative – meaning that there are varying degrees of openness –, and that it is defined by the willingness to cross

¹¹⁸

Available at:
<https://ec.europa.eu/health/ph_overview/co_operation/mobility/docs/health_services_co108_en.pdf>.
Accessed: 29 apr. 2023.

the boundary of a firm either to source or diffuse innovation – meaning that as long as the firms are using resources outside the firm, that would be viewed as open.¹¹⁹

Literature in law on “open innovation” is scarcer than the literature on business and organizational studies, and it seems to focus more on subjects such as peer production communities, contract terms and liabilities associated with open source licensing terms, and on projects such as the Creative Commons Project (whose objective is to promote norm of access to contents with less limitation by promoting standardized licensing terms)¹²⁰. Thus, “open innovation” does not seem to be the equivalent of acknowledging that there is a right to innovation.

Having briefly laid down the backdrop with inputs from international law and international regulations, **the present thesis will henceforth revisit the legal texts of the international trade agreements herein analyzed to ascertain whether they provide for – either expressly or implicitly – a right to innovation, if they acknowledge somehow the existence of a right to innovation, and, if so, who is entitled to such right pursuant to the text of those agreements.**

First of all, **none of the RTAs herein analyzed contain a provision expressly acknowledging or stating that there is a right to innovation**, to innovate or to innovative goods or services. Moreover, the wording of article 27 of the UDHR and of article 15 of the ICESCR – which, as seen above, set forth the right to share or enjoy the benefits of scientific progress and its applications – does not seem to have directly resonated in the RTAs in question.

In fact, the RTAs that do mention “innovation” and “science” (or “scientific”) do so in a manner that (implicitly) conveys the understanding that they are different concepts – for instance, as observed in the following provisions:

“(…) 22. CONSIDERING that cooperation in areas of shared interest, such as **science**, research and **innovation**, nuclear research and space, in the form of the participation of the United Kingdom in the corresponding Union programmes under fair and appropriate conditions will benefit both Parties,” (EU-UK RTA – in force since 29 Jan. 2021)

“CHAPTER 2

Innovation and intellectual property

Article 132

Objectives

The objectives of this Chapter are to:

(a) promote the process of **innovation**, including eco-**innovation**, of enterprises located in the Parties;

¹¹⁹ HUHTILAINEN, Laura; LEE, Nari; NYSTÉN-HAARALA, Soili. Interfacing Intellectual property rights and Open innovation, pp. 2-3. Available at: <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1674365>. Accessed: 29 apr. 2023.

¹²⁰ Id., p. 3.

(...) (f) encourage, develop and facilitate cooperative research and development activities in **science** and technology between the Parties, as well as to develop lasting relations between the Parties' scientific communities;" (EU – CARIFORUM States RTA – in force since 29 Dec. 2008)

The EU – Canada RTA goes further and expressly position them as “*related areas*”:

“RECOGNISING the strong link between **innovation** and trade, and the importance of **innovation** to future economic growth, and affirming their commitment to encourage the expansion of cooperation in the area of **innovation**, as well as **the related areas** of research and development and **science** and technology, and to promote the involvement of relevant public and private sector entities; (...)” (EU – Canada RTA – in force since 21 Sep. 2017)

The EU Overseas Countries and Territories (OCT) RTA, in turn, seems to put forward the understanding that innovation may cover science as well, amongst other things:

“Chapter 3
Research and **innovation**
Article 31
Cooperation in research and **innovation**
In the context of the association, cooperation in the field of research and **innovation may cover science**, technology, including information and communication technologies, with the aim of contributing to the OCTs' sustainable development and to promoting the OCTs's role as regional hubs and centres of excellence as well as their industrial competitiveness. In particular, cooperation may concern:
(a) dialogue, coordination and creation of synergies between OCTs and Union policies and initiatives with regard to **science**, technology and **innovation**;
(b) policy and institutional building within OCTs and concerted actions at local, national or regional level, with a view to developing **science**, technology and **innovation** activities and their application; (...) (EU Overseas Countries and Territories RTA)

It is interesting to note that despite the fact that the RTAs under analysis neither acknowledge the existence of a right to innovation, nor put forward themselves the idea that there is a right to innovation, whenever they mention “innovation”, they do so presenting it in a positive light, as if it were something positive to strive for. Further than that, the EU – Canada RTA (in force since 2017) has expressly recognized in its Preamble “*the strong link between innovation and trade, and the importance of innovation to future economic growth*”.

In this sense, one feature that some of the RTAs herein analyzed share with the TRIPS Agreement and the human rights law instruments previously mentioned (and also with Goal 8 of the SDGs) is the acknowledgment that there is a link between “innovation” and economic welfare and/or growth – to the point that one could argue whether that it could represent an implicit acknowledgment of the ‘right to grow through innovation’ previously mentioned. For instance, one could highlight article 22.3 of the Peru – Australia RTA and article 13.1.2(b) of the Switzerland – China RTA, which states the following:

“CHAPTER 22
DEVELOPMENT

Article 22.3: Broad-Based Economic Growth

3. The Parties also recognise that generating and sustaining **broad-based economic growth** requires sustained high-level commitment by their governments to effectively and efficiently administer public institutions, invest in public infrastructure, welfare, health and education systems, and foster science, technology, [innovation](#) and entrepreneurship, and access to economic opportunity. (Peru – Australia RTA)

“CHAPTER 13
ECONOMIC AND TECHNICAL COOPERATION
ARTICLE 13.1

Scope and Objectives

(...) 2. The cooperation under this Chapter shall pursue the following objectives:
(...) (b) create and enhance sustainable trade and investment opportunities by facilitating trade and investment between the Parties and by strengthening competitiveness and [innovation](#) capacities, with a view to promote sustainable **economic growth and development**. (Switzerland – China RTA)

Another common feature between some of the RTAs and the human rights law instruments abovementioned is the fact that they mention “innovation” and “creativity” (or creative/artistic activity) in the same provision, as (different) things to be protected (for instance through IP rights) and supported, suggesting the existence of benefits that could be obtained therefrom:

“(…) Desiring to foster **creativity** and [innovation](#) and promote trade in goods and services that are the subject of intellectual property rights;” (US – Jordan RTA)

“(…) RESOLVED to foster **creativity** and [innovation](#) by protecting intellectual property rights while maintaining a balance between the rights of the holders and the interests of the public in general, particularly in education, research, public health and access to information;” (EFTA – Colombia RTA)

“CHAPTER 2 – **Innovation** and intellectual property

Article 131 – Context

1. The Parties agree that fostering [innovation](#) and **creativity** improves competitiveness and is a crucial element in their economic partnership, in achieving sustainable development, promoting trade between them and ensuring the gradual integration of CARIFORUM States into the world economy.
2. They also recognise that the protection and enforcement of intellectual property plays a key role in fostering **creativity**, [innovation](#) and competitiveness, and are determined to ensure increasing levels of protection appropriate to their levels of development.” (EU – CARIFORUM States RTA)

In fact, there are authors (such as HITT, SHALLEY, and ZHOU¹²¹) that argue for the interdependence between “creativity” and “innovation”, also adding “entrepreneurship” as another closely related area.

In conclusion, considering the approaches on innovation observed in the RTAs under analysis, it seems to be indifferent whether there is in fact a right to innovation, to innovate

¹²¹ HITT, Michael A. (ed.); SHALLEY, Christina E. (ed.); ZHOU, Jing (ed.). The Oxford Handbook of Creativity, Innovation, and Entrepreneurship. New York: Oxford University Press, 2015, p. 2.

and/or to innovative goods and services for the purposes of the drafting and negotiation of those agreements. Even if such right did not exist and/or were not acknowledged, that would not necessarily undermine the choice of including provisions highlighting the importance of innovation and of fostering it, for whatever purposes the parties deem relevant (for instance, to enhance economic growth, social, economic and sustainable development, amongst other goals). In other words, the existence or inexistence of a right to innovation so far apparently had little to no influence on the inclusion of provisions on innovation in trade agreements, nor on the depth and breadth of such provisions.

In light of that – and still with the mindset of looking inward at the regulation itself and from the standpoint of the States –, what other elements could (and should) a party ponder during the drafting and negotiation of an international trade agreement, when contemplating whether – and, if so, how – to regulate innovation through such agreements? What are the pros and cons of venturing into such a regulation in an international setting, be it in a bilateral, plurilateral or even through a multilateral initiative? Those are some of the questions that will be tackled in the upcoming section.

1.3 What are possible risks, benefits, and opportunities of regulating “innovation” through International Trade Agreements?

The Department of Foreign Affairs and Trade of the Australian Government, in the publication “Negotiating free-trade agreements: a guide”¹²², has accurately pointed out that “[a] superficial examination of free-trade agreements, both concluded and proposed, might suggest that there is much uniformity among them. A close inspection shows, however, that superficial resemblances can hide deep differences in approach and ambition” (p. 24).

Though the guide refers to free-trade agreements, that could be applied in different degrees to all international trade agreements. No two agreements are exactly the same. Notwithstanding their differences, there are some reflections and discussions that ought to take place involving the concerned parties during the drafting and negotiation of a given agreement to develop a general “feel” and direction to the rights and obligations that could be included therein, *vis-à-vis* the objectives of entering into such an agreement.

¹²² Available at: <https://www.apec.org/docs/default-source/Groups/RTAs_FTAs/2005_negotiating-free-trade-agreement_a-guide.pdf>. Accessed: 29 apr. 2023.

From the data and the analysis presented in the previous Chapters, with the exception of those very few agreements that contained a whole Section or Chapter specifically on “innovation”, it seems like the issue of “innovation” has not been a topic per se of a thorough and holistic reflection and discussion in comparison to the various other issues that could have been deemed as of prime concern by the authorities, drafters and negotiators of the parties involved in each agreement. That does not mean, nevertheless, that there would be no value and place in venturing into such kind of discussion, particularly with an eye in future agreements.

With that mindset, the present section will delve into what could be possible risks, benefits and opportunities of consciously and explicitly regulating “innovation” in international trade agreements, stripped from the presumption that such subject should even be regulated differently from how it has been dealt so far (as it could be the case – or not – that the *status quo* is in fact the realistic and/or the most adequate approach), and cognizant of the fact that the answers may depend on the specific context and perspective of the parties involved.

1.3.1 Possible risks

First, concerning possible risks of explicitly regulating innovation, there is potential for regulatory conflict considering the lack of harmonization and uniformity observed. After all, there is no single and consensual definition of “innovation” – in fact, almost all trade agreements herein analyzed did not even provide a definition of that term in their legal texts, despite the drafters and the negotiators being generally aware of the importance of clarity in the provisions of an agreement. The broadness of the term has enabled States to understand it and to regulate it in various ways.

Moreover, there are enforcement concerns that could be relevant to the discussion. And the agreement has to stand the test of time. As seen in the previous Section, the agreements that were herein analyzed mostly contained “softer” language whenever the term “innovation” was mentioned, in the context of cooperation efforts and principles to be observed or to strive for. On the other hand, it could be challenging to conceive and agree on “hard law”-like and enforceable terms regarding the issue of “innovation”. For that, the use of generic and/or somewhat “shallow” terms of integration does not seem to be enough. More specific, concrete, and measurable metrics would be needed for such end, which brings another set of questions and discussions (for instance, what would be an adequate metric to measure compliance?).

Another aspect to be considered is that each country or territory may have its own innovation system, policies, institutions and internal regulations, as will be illustrated in Section 2 of this Chapter. The decision of whether to complement and/or conciliate those regulations with regulation via international trade agreements (and, if so, to what extent) may be challenging, especially considering that innovation issues are somehow moving targets, and that sometimes less regulation may be more conducive to trade and investment than more regulation.

In this sense, some argue that regulation may stifle innovation if it creates barriers to entry and limits the ability of innovators to experiment and iterate, and that a more permissive environment could encourage experimentation and creativity, which in turn could lead to more transformative innovation. On the other hand, as will be addressed in the next section, regulation may be useful and even necessary to some degree in some industries (such as healthcare and finance) to ensure the safety and ethical use of new technologies and practices – though it is arguable whether that would be done through an international trade agreement. Striking a balance could be challenging and will demand a clear understanding of the costs and the benefits of intervening in a particular market.

One additional point to be pondered is that, as seen in Part II of this thesis, there are already provisions (though not abundant) on “innovation” or that mention “innovation” in the international trade agreements currently in force – but the actual effects of those provisions on trade flows, on the promotion of innovation and/or on the access to innovation remain under-researched. In other words, there seems to be a lack of empirical evidence to inform decision-making on that issue, and measuring those effects could be particularly challenging, considering for instance the broadness of the subject and of the provisions in question. In this scenario, one could argue that it could be tricky to put forward further regulation without the evidence that the previous relevant regulation was effective in achieving its objectives or not.

1.3.2 Possible benefits and opportunities envisaged

Regulating innovation through explicit and carefully drafted provisions in an international trade agreement could be an opportunity to attempt to get more clarity and to put forward more concrete innovation policies and goals related to trade, instead of the more diffuse, heterogenous, and somewhat shallow approach that has been noted in the trade agreements herein assessed.

It does not mean that each country or territory should necessarily push for one single regulatory approach of its choice concerning innovation in all the trade agreements to which it is a party. It could implement a regulatory framework that is technology neutral (not to become a barrier to innovative inputs), attentive to sector or industry-specific needs – for instance, to provide mechanisms to address technical barriers to trade, to foster effective cooperation commitments and actions related to innovation, and to enable eventual updates or adaptations of the legal text of an agreement in face of technological changes and disruptions that could demand a change in a norm if it becomes outdated (as occurred in the case that will be detailed in section 1.3.2.1 below).

Another reasoning that has been used to make the case for the inclusion of environmental provisions in trade agreements – and that could be to some extent applied to provisions on innovation as well – is the fact that it could be used as a strategy to get the backing of political parties and non-state actors, which are critical for implementing trade liberalization and could otherwise block the adoption of trade agreements,¹²³ as “greening” the trade agreements enjoys some public support. Perhaps including more express provisions on innovation could have a similar effect.

In any scenario, it is important to bear in mind that environmental provisions in those agreements can complement environmental reforms at the country level, but they cannot be a substitute for them.¹²⁴ And that holds true to provisions on innovation as well. It reinforces the importance of nurturing and developing domestic regulation, institutions and policies on innovation if a country chooses to push for such agenda.

In line with the reasons herein presented, on 6 October 2021, the Council at Ministerial Level of the OECD adopted a document named “**Recommendation of the Council for Agile Regulatory Governance to Harness Innovation**”¹²⁵, in which it recognized *inter alia*: (i) “*that holistic, open, inclusive, adaptive, and better-co-ordinated governance models enhance systemic resilience by enabling the development of agile, adaptive regulation that upholds fundamental rights, democratic values, and the rule of law*”; (ii) “*that strengthening regulatory*

¹²³ BERGER, Axel; BRANDI, Clara; MORIN, Jean-Frédéric; SCHWAB, Jakob. Do environmental provisions in trade agreements make exports from developing countries greener? in *World Development*, v. 129, Elsevier Ltd., 2020. Available at: <<https://reader.elsevier.com/reader/sd/pii/S0305750X20300255?token=DCB53A222AEA0EDB16E3A415CC91250BB92F33718C4DCC7AEA8A0A5E3EF954B27D65AE434C2A02EC6209F753EB9C1F3E&originRegion=us-east-1&originCreation=20230402194637>>. Accessed: 29 apr. 2023.

¹²⁴ Ibid.

¹²⁵ OECD. Recommendation of the Council for Agile Regulatory Governance to Harness Innovation. Adopted on 6 Oct. 2021 by the Council at Ministerial level. Available at: <<https://www.oecd.org/mcm/Recommendation-for-Agile-Regulatory-Governance-to-Harness-Innovation.pdf>>. Accessed: 29 apr. 2023.

policy and governance to ensure that innovation is sustainable and human-centred is crucial and that addressing current challenges warrants adapting the design and application of existing regulatory management tools to ensure their continued relevance”; and (iii) *“strengthening regulatory policy and governance to ensure that innovation is sustainable and human-centred is crucial and that addressing current challenges warrants adapting the design and application of existing regulatory management tools to ensure their continued relevance”*.

Besides those acknowledgments, the OECD recommended that adherents *“lay institutional foundations to enable co-operation and joined-up approaches within and across jurisdictions”*, and *“develop governance frameworks to enable the development of agile and future-proof regulation”*. The former seems to be in line with what many States and territories seem to be doing for instance through the RTAs that contain provisions on cooperation commitments related to innovation. The later, in turn, seems to be more geared towards domestic regulation, institutions and policies, which, as will be seen in Section 2 of Part III.1 of this thesis, is already being developed by many countries worldwide.

1.3.2.1 The case of an outdated norm in an international trade agreement as an obstacle to innovation: possible avenue for action

To expand on one point previously raised, a concrete case that even initially inspired the studies of this thesis will be presented in this section. It concerns an outdated norm in a trade agreement that represented a barrier to innovation that could have benefitted from express regulation on innovation in the international agreement relevant to that case.

In 2002, the Brazilian government enacted the Resolution of ANVISA’s Collegiate Directory n. 217/2002¹²⁶ (ANVISA is the Brazilian Health Regulatory Agency) (known as “RDC n. 217/2002”), which sets forth a Technical Regulation on Regenerated Cellulose Films in Contact with Food. RDC n. 217/2002 actually resulted from the internalization in Brazil of a MERCOSUR norm: Resolution GMC n. 55/97 – which in turn had been inspired by the Directive n. 93/10/EC of the European Commission of 15 March 1993 (relating to materials and articles made of regenerated cellulose film intended to come into contact with foodstuffs).

¹²⁶

Available at: https://bvs.saude.gov.br/bvs/saudelegis/anvisa/2002/rdc0217_01_08_2002.html#:~:text=RESOLU%C3%87%C3%83O%20-%20RDC%20N%C2%BA%20217%2C%20DE%201%C2%BA%20DE,reuni%C3%A3o%20realizada%20em%2024%20de%20julho%20de%202002%2C. Accessed: 29 apr. 2023.

In the interest of greater clarity, rationality and specificity of the norm, nevertheless, Directive n. 93/10/EEC was later repealed by Directive 2007/42/EC of 29 June 2007¹²⁷ (also relating to materials and articles made of regenerated cellulose film intended to come into contact with foodstuffs). After it was repealed and replaced by another norm (which implemented significant changes in the regulation), however, MERCOSUR did not update its RDC n. 217/2002 in the following years to reflect the changes implemented by Directive 2007/42/EC – and thus, considering that the Brazilian regulation shall be harmonized with MERCOSUR’s regulation, Brazil did not update its RDC n. 217/2002 for years (in theory, it could do so only after MERCOSUR’s revision of the norm is concluded).

In other words, MERCOSUR’s and Brazil’s regulation on that topic became outdated, considering that the European Commission’s regulation on the subject was considered worldwide as a reference on the issue of materials and articles made of regenerated cellulose film intended to come into contact with foodstuffs (so much that MERCOSUR’s norm was inspired by it), given that the Codex Alimentarius does not regulate such topic.

The issue is that, with technological advancements in the substances included in the regenerated cellulose film that could come into contact with foodstuffs, such outdated regulation became a stumbling block for companies that were investing in innovative solutions and wanted to launch and commercialize their innovative products in Brazil, in MERCOSUR or elsewhere. For instance, there were some substances that could be used in the regenerated cellulose film that became regulated (and thus authorized) under Directive 2007/42/EC that were not previously regulated (therefore were previously not expressly authorized for the specific use of integrating regenerated cellulose films), as their use was safe and did not present risk to consumers.

Despite such acknowledgment, as MERCOSUR’s norm (and Brazilian regulation by extension) had not been updated, companies producing in Brazil could not use those substances in the production of regenerated cellulose films intended to come into contact with foodstuffs, even though their use had already been authorized by the European Commission since 2007, apparently with no issues since then.

Such regulatory obstacle was effectively hampering the production and launch in Brazil of more environmentally friendly coffee pods, produced with that regenerated cellulose film that contained the substances authorized by Directive 2007/42/EC. If such use and production were not to be authorized in Brazil, production would potentially be moved to another country

¹²⁷ Available at: <<https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32007L0042>>. Accessed: 29 apr. 2023.

– meaning that Brazil would lose significant investments, jobs and gains due to a regulatory issue (an outdated norm).

According to documents that are publicly available, the companies involved in the development and production of those regenerated cellulose films and the coffee pods formally requested ANVISA in 2019 to urgently update RDC n. 217/2002 to reflect the advancements in the field already approved for years by the European Commission, and, in parallel, requested the Brazilian government to push for a revision of Resolution GMC n. 55/97 before MERCOSUR (which the Brazilian government formally requested in November 2021, before MERCOSUR’s Work Subgroup n. 3 during the LXXVIII Ordinary Meeting).

In 2022, ANVISA’s technical organ that deals with risk and efficacy evaluations (GEARE/GGALI – *Gerência de Avaliação de Risco e Eficácia*) formalized its consent (*anuência*) to the use of the four substances that were already regulated and authorized under Directive 2007/42/EC¹²⁸, but it indicated that in theory Brazil had to wait for the conclusion of the revision proceedings of Resolution GMC n. 55/97 in MERCOSUR to then internalize an updated norm – which could take years to conclude.

After further consideration, ANVISA decided to unilaterally authorize in Brazil the use of those 4 (four) substances in regenerated cellulose films intended to come into contact with foodstuffs through the publication of an updated version of RDC n. 217/2002 – i.e., RDC n. 755 of 14 October 2022¹²⁹, which included a note highlighting that such a decision is not harmonized yet with MERCOSUR’s regulation. But there was a catch: companies would only be able to trade goods produced with regenerated cellulose films with any of those 4 substances inside the Brazilian market and to other countries EXCEPT from the other MERCOSUR Members – at least, until Resolution GMC n. 55/97 is updated.

Such publication, though not ideal, was already enough to enable companies to produce, launch and commercialize in Brazil the coffee pods produced with regenerated cellulose films, which is an innovation that resulted from years of R&D in the search for a bio decomposable solution for coffee pods.¹³⁰

¹²⁸ Cf. <<https://www.gov.br/anvisa/pt-br/composicao/diretoria-colegiada/reunioes-da-diretoria/votos-dos-circuitos-deliberativos-1/2022/cd-999-2022-voto.pdf>>. Accessed: 29 apr. 2023.

¹²⁹ Available at: <[¹³⁰ Cf. <<https://www.terra.com.br/byte/como-a-nestle-finalmente-criou-capsula-de-cafe-que-nao-faz-mal-ao-meio-ambiente,f55f4a130452dd2e70d5de166d63588f19wfhgid.html>>. Accessed: 29 apr. 2023.](http://antigo.anvisa.gov.br/documents/10181/6503084/RDC_755_2022_.pdf/9c5ced17-79f6-44dc-8f90-7ae717c9caa8#:~:text=RESOLU%C3%87%C3%83O%20DA%20DIRETORIA%20COLEGIADA%20-%20RDC%20N%C2%BA%20755%2C,pe1%C3%ADculas%20de%20celulose%20regenerada%20em%20contato%20com%20alimentos.> . Accessed: 29 apr. 2023.</p></div><div data-bbox=)

In the said case, it took 15 (fifteen) years for an outdated regulation to be updated in Brazil – and, in MERCOSUR, the revision process is still ongoing, in a case when it is widely proved that the update would not bring any harm to consumers.

If a trade agreement such as the one that created MERCOSUR (the Treaty of Asunción) and/or its Protocols had in their legal text provisions and mechanisms that could cater to situations like the one abovementioned – in which the regulation in place turned into an obstacle for the insertion and circulation in the market of an innovative good –, maybe it could enable and facilitate the access to innovative products in a given region and country, potentially enhancing consumer welfare, and present more opportunities and incentives specially for the private sector to invest more on R&D and innovation in a given region and country.

2 THE RELATIONSHIP AND ROLE OF INTERNATIONAL TRADE AGREEMENTS VIS-À-VIS INTERNAL REGULATION CONCERNING THE REGULATION OF “INNOVATION”

So far, the present thesis has delved into the legal texts of the agreements in an attempt to grasp the gist of how the issue of “innovation” has been dealt in those trade agreements – mainly from a *theoretical* standpoint.

In the present section, the aim is to entertain, from a more *practical* standpoint, how some of the countries that have stood out in the previous chapters (in terms of the number of references to “innovation” and its substance in the trade agreements of which they are a part of) are performing in terms of innovation – according to the Global Innovation Index (GII), published by WIPO (the World Intellectual Property Organization) in partnership with the Portulans institute, various corporate and academic network partners, which aims to capture the multi-dimensional facets of innovation.

The objective is to try to ascertain whether such performance could have any relationship with the approaches taken in the trade agreements on the issue of innovation, and whether they have internal innovation systems and regulations more or less developed that could also have contributed to the results achieved by each one of those countries.

The selected countries that will be the focus of this study are Chile, Singapore and the United Kingdom. For comparison purposes, another country will also be added to this assessment: Brazil, which apparently has no RTAs in force that mention “innovation” in its portfolio of trade agreements (at least, not amongst the ones so far notified to the WTO).

2.1 The case of Chile

2.1.1 Chile’s innovation performance according to the GII

According to the 2022 Global Innovation Index (GII), Chile ranks 50th among the 132 economies featured in the said Index, and it ranks 1st among the 18 economies in Latin America and the Caribbean.¹³¹ It is worth noting that Chile has been classified as a “high income” country by the World Bank. The GII ranks world economies according to their innovation

¹³¹ Cf. <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/cl.pdf>. Accessed: 29 apr. 2023.

capabilities. Consisting of roughly 80 indicators, grouped into innovation inputs and outputs, the GII aims to capture the multi-dimensional facets of innovation.

Just for reference, according to the GII, “*innovation inputs*” are “*the forces that push knowledge creation, exploration, and investments*”. The input sub-index comprises five input pillars that capture elements of the economy that enable and facilitate innovative activities, namely: (i) institutions (political environment; regulatory environment; business environment); (ii) human capital and research (education; tertiary education; research and development (R&D)); (iii) infrastructure (information and communication technologies (ICTs), general infrastructure, ecological sustainability); (iv) market sophistication (credit, investment, trade, diversification and markets scale; and (v) business sophistication (knowledge workers, innovation linkages and knowledge absorption).¹³² On the other hand, “*innovation outputs*” are “*forces that pull ideas and technologies towards application, exploitation, and impact*”, or the “*result of innovative activities within the economy*”, based on two pillars: (i) knowledge and technology outputs; and (ii) creative outputs.

Historically, according to the GII, Chile’s ranking has evolved in the following manner – with the caveat that the GII itself notes that “*data availability and changes to the GII model framework influence year-on-year comparisons of the GII rankings*”.

Table 41: Rankings of Chile in the GII (2012-2022)

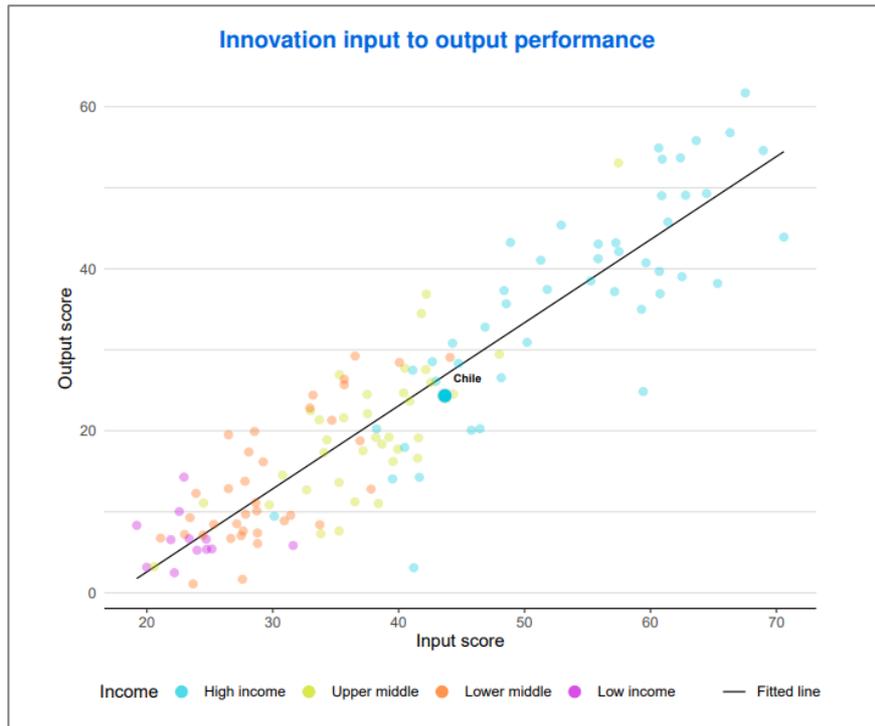
	GII	Innovation inputs	Innovation outputs
2022	50	43	57
2021	53	44	61
2020	54	41	66
2019	51	43	62
2018	47	45	53
2017	46	42	53
2016	44	40	53
2015	42	36	48
2014	46	37	54
2013	46	41	48

Source: author’s elaboration, with the data from the GII from 2012-2022

As observed in the table above, Chile has historically performed better in innovation inputs than outputs – in other words, it produces less innovation outputs relative to its level of innovation investments, as seen in the chart below from the 2022 GII Report (the economies above the line in the chart below are effectively translating costly innovation investments into more and higher-quality outputs):

¹³² Cf. <<https://www.globalinnovationindex.org/about-gii#framework>>. Accessed: 29 apr. 2023.

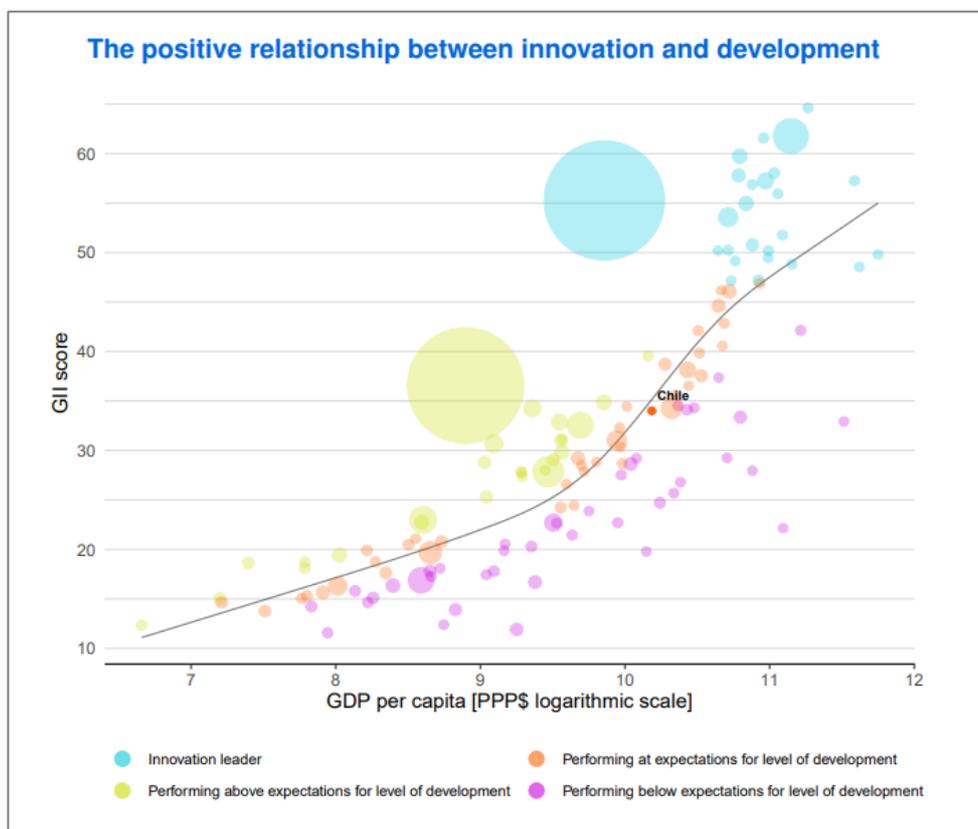
Figure 37: Chile's relationship between innovation inputs and outputs



Source: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/cl.pdf>, p. 3.

In addition, the 2022 GII Report compared the relationship between income levels (GDP per capita) and innovation performance (GII score), in order to ascertain what would be the expected innovation performance of a country according to its income level (in the chart below, economies appearing above the trend line are performing better than expected and those below are performing below expectations). As can be seen below, relative to its GDP, the GII 2022 Report noted that “*Chile’s performance is at expectations for its level of development*”:

Figure 38: Chile’s performance in innovation vis-à-vis its level of development



Source: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/cl.pdf>, p. 2.

The innovation strengths and weaknesses for Chile according to the 2022 GII Report are the following:

Figure 39: Chile’s innovation strengths and weaknesses

Strengths			Weaknesses		
Code	Indicator name	Rank	Code	Indicator name	Rank
1.2.2	Rule of law	25	1.2.3	Cost of redundancy dismissal	111
2.1.3	School life expectancy, years	22	2.1.5	Pupil-teacher ratio, secondary	85
2.2.1	Tertiary enrolment, % gross	7	2.2.3	Tertiary inbound mobility, %	97
4.1.2	Domestic credit to private sector, % GDP	19	2.3.3	Global corporate R&D investors, top 3, mn USD	38
4.3.1	Applied tariff rate, weighted avg., %	5	4.1.1	Finance for startups and scaleups	52
5.3.1	Intellectual property payments, % total trade	12	4.3.2	Domestic industry diversification	78
6.2.1	Labor productivity growth, %	16	6.3.4	ICT services exports, % total trade	96
6.2.2	New businesses/th pop. 15–64	10	7.1.4	Industrial designs by origin/bn PPP\$ GDP	108
6.2.3	Software spending, % GDP	21	7.2.4	Printing and other media, % manufacturing	75
7.1.2	Trademarks by origin/bn PPP\$ GDP	12	7.2.5	Creative goods exports, % total trade	91

Source: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/cl.pdf>, p. 6.

As seen above, “rule of law” is highlighted as one of Chile’s strengths on innovation. It is important to clarify that such indicator “reflects perceptions of the extent to which agents have confidence in and abide by the rules of society, in particular the quality of contract

*enforcement, property rights, the police and the courts, as well as the likelihood of crime and violence*¹³³. Thus, it does not encompass an analysis of **regulatory quality** – which is in fact another different indicator used by the World Bank, which “*reflects perceptions of the ability of the government to formulate and implement sound policies that permit and promote private-sector development*”.

To construct that measure of “regulatory quality”, numerous individual variables from various data sources are used¹³⁴. Some of the variables considered are “trade policy”, “regional integration” (and just by these two variables, it could be argued that trade agreements could be taken into consideration in the analysis of “regulatory quality”), “business regulatory environment” and “regulatory burden”, just to name a few, from sources such as the African Development Bank Country Policy and Institutional Assessments, the Asian Development Bank Country Policy and Institutional Assessments and the World Bank Country Policy and Institutional Assessments.

Regarding the “regulatory quality” indicator, it is not listed neither amongst Chile’s strengths nor amongst its weaknesses. Chile ranked 31st in that indicator (out of 132 economies), according to the 2022 GII Report¹³⁵.

2.1.2 Chile’s internal innovation policies

In 2020, the Chilean Ministry of Science, Technology, Knowledge and Innovation (created by Law n. 21.105 of 2018) has established for the 2020-2022 period both a National Policy of Science, Technology, Knowledge and Innovation (*Política Nacional de Ciencia, Tecnología, Conocimiento e Innovación – CTCI*) and an Action Plan (*Plan de Acción*).¹³⁶

The Policy was tailored to work as an articulation mechanism between the different ministries and public services, regional governments, private sector, and civil society. Its guiding principles are: (i) excellency and capacity to adapt; (ii) associativity and collaboration between the different actors of the national and international ecosystem; (iii) opening and transparency; (iv) diversity and ethics. The Policy aims at strategically guiding the country's

¹³³ Cf. <<https://www.globalinnovationindex.org/userfiles/file/reportpdf/gii-full-report-2022.pdf>>, p. 235. Accessed: 29 apr. 2023.

¹³⁴ The detailed Table of the individual variables and of the respective data sources used for this indicator may be found at <<https://www.google.com.br/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwinnuTkydf-AhVsrJUCHaz5DVYQFnoECA8QAQ&url=https%3A%2F%2Finfo.worldbank.org%2Fgovernance%2Fwgi%2FHome%2FdownloadFile%3FfileName%3Drq.pdf&usg=AOvVaw0tLDouGvnuYUsVyl-zfkIm>>. Accessed: 29 apr. 2023.

¹³⁵ Cf. <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/cl.pdf>, p. 7.

¹³⁶ Cf. <<https://minciencia.gob.cl/politicactci/index.html>>. Accessed: 29 apr. 2023.

efforts to strengthen the CTCI (science, technology, knowledge and innovation) ecosystem in Chile and seize the opportunities based on information and evidence to anticipate actions and answers to economic, social and environmental issues.¹³⁷

Specifically on “innovation”, the Policy intended to put in place mechanisms that *facilitate and promote* innovation, which is understood under that Policy as “*a non-linear process, which improves or generates new products, services or processes with the participation and interaction of distinct actors (people, companies, higher education institutions, intermediary organizations, the State and/or private non-profit organizations, amongst others)*”.¹³⁸ It acknowledged that “*innovation is a powerful tool not only to increase the economic growth of the countries, but also, to design and implement new solutions to major social and strategic problems*”, and that “*innovation has several manifestations*”¹³⁹. The Policy tackled innovation on four dimensions: (i) scientific-technological based innovation (*innovación de base científico-tecnológica*); (ii) business innovation (*innovación empresarial*); (iii) social innovation (*innovación social*); and (iv) public innovation (*innovación pública*).

In the **scientific-technological based innovation dimension**, in concrete terms, the Chilean government aimed to push for acceleration programs to support science and technology startups, as well as to (financially, technically, commercially, and legally) support those startups to have access to different actors nationally and internationally (through programs such as the Start-Up Chile entrepreneurship program, created in 2010).

In the **business innovation dimension**, the Policy intended to increase the competitiveness of the companies in the market – which could encompass programs such as those that deal with intellectual property issues and technology transfer and diffusion; with mechanisms that push for the diffusion and use of technology as a competitiveness tool for the productive sectors; with the promotion of the generation of new businesses with high added value; with financing for innovation projects, and for initiatives aimed at improving access to advanced knowledge and or/production technologies; with the development of public goods for innovation; amongst others.

¹³⁷ Cf. https://minciencia.gob.cl/politicactci/documentos/Politica-Nacional-CTCi_Chile-2020.pdf, pp. 46-47. Accessed: 29 apr. 2023.

¹³⁸ “*Es así como esta política pone a disposición mecanismos que faciliten y promuevan la innovación, entendida como un proceso no lineal, que mejora o genera nuevos productos, servicios o procesos con la participación e interacción de distintos actores (personas, empresas, instituciones de educación superior, organizaciones intermedias, Estado y/o instituciones privadas sin fines de lucro, entre otros).*” Cf. https://minciencia.gob.cl/politicactci/documentos/Politica-Nacional-CTCi_Chile-2020.pdf, p. 77. Accessed: 29 apr. 2023.

¹³⁹ Id., p. 78.

Regarding the **social innovation dimension**, the objective was to develop products, processes, services or innovative, sustainable and inclusive models that seek the solution to social problems or needs, by supporting collaborative works between the innovators, civil society, public organs and other actors.

Concerning the **public innovation dimension**, it aimed at generating added public value, both from the point of view of the quality of goods and services that are delivered, as well as the internal productivity of the institutions.

As for the **Action Plan** – which aimed at implementing the National Policy abovementioned –, it currently contains 118 initiatives, of which 69 are of continuity, 18 set forth modifications or strengthening actions, and 31 are new initiatives¹⁴⁰. Looking into the content of those initiatives, they are focused on internal (domestic) actions and programs, rather than international ones, except for a few initiatives geared towards incentivizing technological transfer (specifically to address environmental issues),¹⁴¹ and to foster international mobility of people for post doctorate studies abroad and through international cooperation initiatives specially for educational purposes.

The Chilean government has indicated that the National Policy at hand is being implemented and updated in 2023.¹⁴²

It is noteworthy that **neither the National Policy nor the Action Plan at hand mention the role of international trade and of international trade agreements for meeting their goals**. There were only generic mentions to topics that are regulated by international trade agreements, such as IP, technology transfer, and cooperation efforts. As mentioned, both the Policy and the Action Plan geared towards *internal* measures in a wide range of sectors and fields, involving a wide range of actors, without placing much attention at this stage to the role that international trade agreements could play in the CTCI ecosystem in Chile.

Beyond the National Policy and the Action Plan aforementioned, Chile has implemented other measures to foster the capacity to innovate. For instance, in 2008, an initial tax benefit for R&D expenditures was implemented to promote private participation in R&D investment. A modification to this tax benefit in 2012 made in-house R&D activities eligible for the tax credit. Other important changes to the law include a threefold increase in the annual tax ceiling for the

¹⁴⁰ Cf. <<https://www.minciencia.gob.cl/el-ministerio/politica-nacional-de-ctci/>>. Accessed: 29 apr. 2023.

¹⁴¹ Cf. <https://minciencia.gob.cl/politicactci/documentos/Politica-Nacional-CTCI_Plan_Accion_Chile_2020.pdf>, p. 75. Accessed: 29 apr. 2023.

¹⁴² Cf. <<https://www.minciencia.gob.cl/el-ministerio/politica-nacional-de-ctci/>>. Accessed: 29 apr. 2023.

benefit, to USD 1.2 million, and raising the 15% cap as a share of gross income. After this modification, the flow of new patent applications increased five-fold.¹⁴³

2.1.3 Chile's trade agreements

Chile has notified to the WTO 31 RTAs (until March 13th, 2023) that are in force, according to the WTO RTA Database. From those 31 RTAs, 15 contain the keyword “innovation” or its variations in their legal text, which entered into force from 1999 to 2019. The parties with which those RTAs were signed are: Mexico, the EU, the US, the EFTA parties, China, Colombia, Australia, Türkiye, Malaysia, Viet Nam, Thailand and Indonesia, not to mention those that are parties to the CPTPP, the Trans-Pacific Strategic Economic Partnership and of the Pacific Alliance (of which Chile is also a party to).

The provisions that mentioned “innovation” or its variations from those agreements can be classified in the following categories – which indicate that such term is more often used in provisions that provide for cooperation commitments:

Table 42: Number of provisions per category from RTAs to which Chile is a party to that mention the keyword “innovation” or its variations

Category	Number of RTAs that mention the keyword “innovation” or its variations in that category	Which RTAs?
Cooperation provisions	11	CPTPP; Indonesia – Chile; Thailand – Chile; Viet Nam – Chile; Malaysia – Chile; Türkiye – Chile; Colombia – Chile; Australia – Chile; China – Chile; Trans-Pacific Strategic Economic Partnership; EU – Chile
Preamble/Objectives	7	Pacific Alliance RTA – Additional Protocol; Australia – Chile; Colombia – Chile; Trans-Pacific Strategic Economic Partnership; EFTA – Chile; US – Chile; Mexico – Chile
IP provisions	5	CPTPP; Türkiye – Chile; China – Chile; Trans-Pacific Strategic Economic Partnership; US – Chile
Development provisions	4	CPTPP; Malaysia – Chile; Colombia – Chile; Australia - Chile
Environmental provisions	2	CPTPP; US – Chile
Provisions on SMEs	2	EU – Chile; China – Chile
E-commerce provisions	1	Pacific Alliance RTA – Additional Protocol
Medical or Pharmaceutical field provisions	1	CPTPP

Source: author's elaboration

¹⁴³ OCDE. ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT. Regulatory Policy in Chile: Government Capacity to Ensure High-Quality Regulation, OECD Reviews of Regulatory Reform, OECD Publishing, Paris, p. 35, 2016.

Though none of the provisions abovementioned expressly mentions any specific internal policy or regulation from the Chilean government, using instead more generic terms, they seem to adopt the presumption that Chile has something to contribute and to collaborate with the other party(ies) regarding innovation in various fronts (e.g. science and technology, social cooperation, technical assistance to SMEs, education etc.).

2.2 The case of Singapore

2.2.1 Singapore’s innovation performance according to the GII

According to the 2022 Global Innovation Index (GII), Singapore ranks 7th among the 132 economies featured in the said Index¹⁴⁴ (thus, much better placed than Chile, who ranked at the 50th place). More generally, Singapore has been classified as a “high income” country by the World Bank.

Table 43: Rankings of Singapore in the GII (2012-2022)

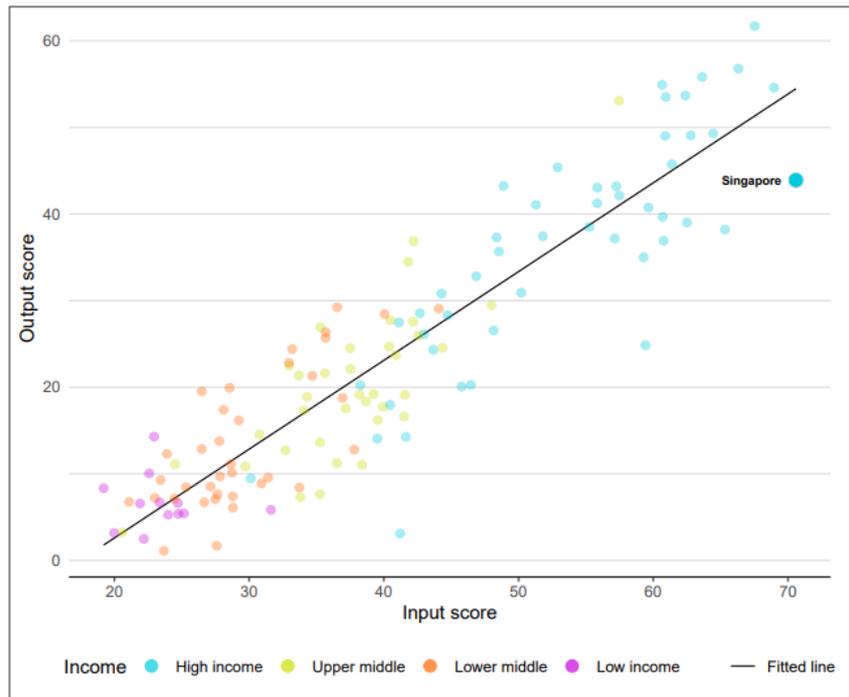
	GII	Innovation inputs	Innovation outputs
2022	7	1	14
2021	8	1	13
2020	8	1	15
2019	8	1	15
2018	5	1	15
2017	7	1	17
2016	6	1	20
2015	7	1	20
2014	7	1	25
2013	8	1	18

Source: author’s elaboration, with the data from the GII from 2012-2022

As seen above, Singapore has historically performed better in innovation inputs than outputs – in other words, it produces less innovation outputs relative to its level of innovation investments, as illustrated in the chat below, from the 2022 GII Report:

¹⁴⁴ Cf. <<https://www.wipo.int/edocs/pubdocs/en/wipo-pub-2000-2022-en-main-report-global-innovation-index-2022-15th-edition.pdf>>. Accessed: 29 apr. 2023.

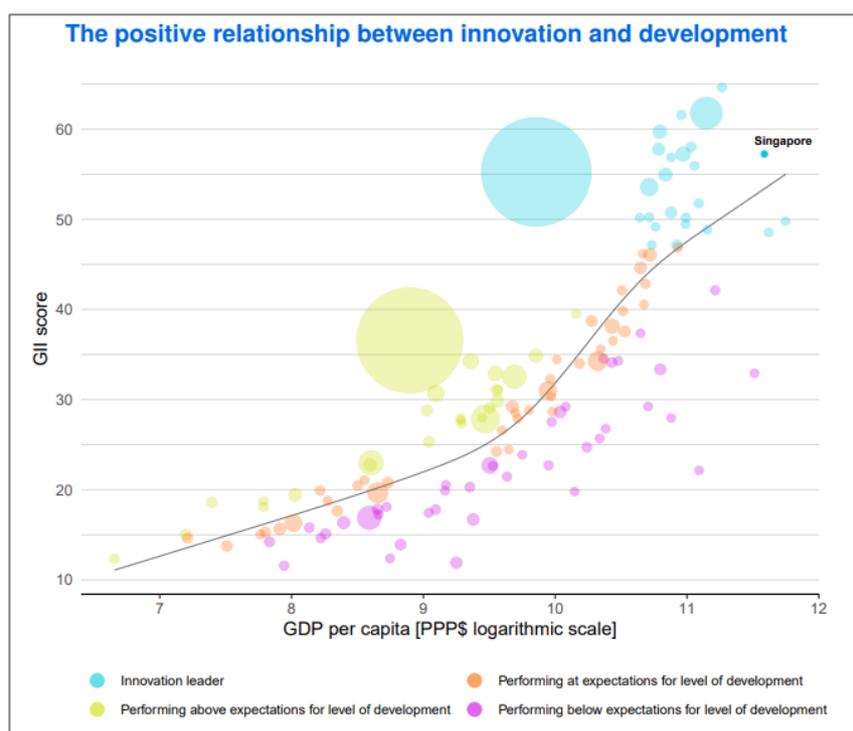
Figure 40: Singapore's relationship between innovation inputs and outputs



Source: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/sg.pdf>, p. 3.

Relative to its GDP, Singapore's performance is *above expectations* for its level of development, according to the 2022 GII Report:

Figure 41: Singapore’s performance in innovation vis-à-vis its level of development



Source: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/sg.pdf>, p. 2.

It is noteworthy that Singapore placed 1st amongst the 132 countries in the indicator “regulatory quality”, being one of its main innovation strengths, as seen below:

Figure 42: Singapore’s innovation strengths and weaknesses

Strengths			Weaknesses		
Code	Indicator name	Rank	Code	Indicator name	Rank
1.1.1	Political and operational stability	1	2.1.1	Expenditure on education, % GDP	117
1.1.2	Government effectiveness	1	2.1.2	Government funding/pupil, secondary, % GDP/cap	53
1.2.1	Regulatory quality	1	3.2.3	Gross capital formation, % GDP	66
1.2.3	Cost of redundancy dismissal	1	4.3.2	Domestic industry diversification	80
1.3.1	Policies for doing business	3	6.2.3	Software spending, % GDP	50
2.1.4	PISA scales in reading, maths and science	2	7.1.1	Intangible asset intensity, top 15, %	55
3.1.1	ICT access	1	7.1.2	Trademarks by origin/bn PPP\$ GDP	89
4.2.2	Venture capital investors, deals/bn PPP\$ GDP	1	7.1.4	Industrial designs by origin/bn PPP\$ GDP	76
4.2.3	Venture capital recipients, deals/bn PPP\$ GDP	1	7.2.2	National feature films/mn pop. 15–69	49
4.2.4	Venture capital received, value, % GDP	1	7.2.4	Printing and other media, % manufacturing	84
4.3.1	Applied tariff rate, weighted avg., %	3			
5.1.1	Knowledge-intensive employment, %	2			
6.2.5	High-tech manufacturing, %	1			
7.2.1	Cultural and creative services exports, % total trade	1			
7.3.3	GitHub commit pushes received/mn pop. 15–69	1			

Source: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/sg.pdf>, p. 6.

2.2.2 Singapore's internal innovation policies

While the first three decades of Singapore's rapid economic growth have been based largely on a strategy to attract and leverage global multinational corporations to create increasingly higher value-adding economic activities, the last 25 years have witnessed an increasing shift toward promoting technological innovation and entrepreneurship, and the building of a vibrant innovation and entrepreneurship ecosystem that supports several major clusters of innovation (including medtech, smart urban mobility/infrastructure and internet/mobile e-commerce). More recently, the city-state has also been seeking to accelerate the commercialization of a wider range of deep technologies from universities and public research labs, including artificial intelligence (AI), advanced materials and fintech.¹⁴⁵

According to WIPO's webpage dedicated to Singapore as an innovation hotspot¹⁴⁶, Singapore's innovation policies over the last 30 years have allowed the country to develop its own technologies and become a high-income economy. Such policies aim to ensure the symbiotic relationship between large innovative enterprises, entrepreneurs, and venture investors. These policies can be summarized into 2 categories: (i) **Supply-push** innovation policies: intend to build the infrastructure and make investments that stimulate innovations; and (ii) **Demand-pull** innovation policies: these tend to facilitate the adoption of new products and services to mitigate the risk of developing them.

As for building the supply, the Singaporean government has played an active role in building its supply-side innovation capacity. Over the past four decades, Singapore invested the financial, physical and human capitals necessary for its economic transition into an innovation leader in the region. To compensate for the drop of the share of private local funding from one third to one quarter between 2005 and 2015, the government provided a US\$1 billion in **public funds to revive the venture capital industry**. This initial substantial public investment has been continued since. Key **public spending in critical infrastructures** such as to build its smart city infrastructure and healthcare contributed to the growth of innovative activities of indigenous start-ups. In addition, public **investments into education, and research and development** contributed to its strong reputation in the regional and international research, with

¹⁴⁵ Cf. <<https://www.wipo.int/edocs/pubdocs/en/wipo-pub-gih-singapore-en-global-innovation-hotspots-singapore-s-innovation-and-entrepreneurship-ecosystem.pdf>>, p. 1. Accessed: 29 apr. 2023.

¹⁴⁶ Cf. <https://www.wipo.int/about-ip/en/ip_innovation_economics/innovation_hotspots/singapore.html#:~:text=Singapore%27s%20innovation%20policies%20over%20the,%2C%20entrepreneurs%2C%20and%20venture%20investors.>>. Accessed: 29 apr. 2023.

two universities ranking as first and second in Asia in 2019 and 2020. Moreover, the quantity and quality of its **fundamental research** are notably enhanced by the intensification of entrepreneurship training and spin-off incubation. It is thus not surprising that the Singaporean public research institutions (PRIs), universities and start-ups demonstrate the sharpest growth in patent application over the last 20 years.

The Singaporean government has also been instrumental in providing the demand for Singaporean-led new technological innovations. In this regard, the **government is an early adopter of relatively unproven new technologies** or novel forms of services in sectors such as mobility, energy and more recently public healthcare during the COVID-19 crisis. Because of this, several inventions became viable commercial innovations that have broadly diffused to the private sector.

Finally, one crucial element of the Singaporean public policies is its innovation-friendly environment. Local innovators can rely on the **support of specialized institutions to scale-up** their start-ups. These services encourage commercial efforts by making it easier for the entrepreneurs to understand matters related to **intellectual property** protection, venture capital investment, mergers and acquisitions or initial public offering.

In December 2020, the Singaporean government announced the launch of the Research, Innovation and Enterprise (RIE) 2025 Plan – which provided that the Singapore government would sustain investments in RIE activities at about 1% of the GDP, or US\$ 25 B, for 2021-2025.¹⁴⁷ The RIE 2025 seeks to build on the progress of previous RIE investments and will have three major focus areas. First, to expand the scope of RIE to address a broader spectrum of national needs, including areas of strategic importance, namely:

- **Manufacturing, Trade and Connectivity**, which will expand beyond the manufacturing sectors to raise capabilities in the trade and connectivity sectors (e.g. aviation, sea transport, logistics and wholesale trade).
- **Human Health and Potential**, which will expand to include Human Potential, with focus on enhancing development during pregnancy and early childhood, augmenting learning outcomes, and fostering healthy and meaningful longevity.
- **Urban Solutions and Sustainability**, which will address new challenges in sustainability and resilience, including climate change, decarbonisation, healthy cities, and transformation of our built environment.

¹⁴⁷ Cf. <[https://www.nrf.gov.sg/docs/default-source/default-document-library/rie2025-press-release-\(11-dec-final\).pdf](https://www.nrf.gov.sg/docs/default-source/default-document-library/rie2025-press-release-(11-dec-final).pdf)>. Accessed: 29 apr. 2023.

- **Smart Nation and Digital Economy**, which will develop capabilities to prepare Singaporeans for opportunities in the digital space and transform our enterprises. The strengths in strategic technologies will also be furthered to enhance their resilience and anchor Singapore’s position as a trusted digital innovation hub.

The second focus area will be to enrich Singapore’s scientific base, with consistent investment in basic research. Singapore’s National Research Foundation will also introduce mechanisms to systematically review our basic science capabilities and identify potential peaks of excellence that will differentiate Singapore internationally. The portfolio supporting basic research will be calibrated to (i) increase support for investigator-led grants to encourage bottom-up ideas, and (ii) shift funding from large centers towards medium- sized grants that continue to bring capabilities together with sufficient scale to create impact. RIE2025 will also strengthen inter-disciplinary research needed to address complex challenges such as climate change, and to pursue emerging and novel science.

The third focus area will be to scale up Innovation and Enterprise (I&E) platforms to drive technology translation and accelerate enterprise innovation. For example, the Diagnostics Development Hub at the Agency for Science, Technology and Research accelerated the development and regulatory approval of novel diagnostics solutions for global market adoption, such as the Resolute series test-kits for COVID-19. The Singaporean government plans to scale up I&E platforms and to support existing platforms to move into adjacent areas with high growth potential (e.g. from supporting diagnostics development to medtech), and also to establish new platforms to tap on Singapore’s deep R&D strengths and bridge ecosystem gaps (e.g. to deploy robotics in the built environment sector).

Those platforms will complement other initiatives, such as technology consortia and corporate laboratories, to increase the base of enterprises engaging in RIE, and strengthen their innovation capabilities. Moreover, the Singaporean government plans to forge stronger connections with global innovation hubs, such as through the Global Innovation Alliance, to strengthen the access of our enterprises to key technology solutions, talent and demand markets.

2.2.3 *Singapore’s trade agreements*

Singapore has notified 27 RTAs (until March 13th, 2023) to the WTO that are in force, according to the WTO RTA Database. From those 27 RTAs, 15 contain the keyword “innovation” or its variations in their legal text, which entered into force from 2001 to 2021.

The parties with which those RTAs were signed are: Australia, China, Costa Rica, Hong Kong, India, Japan, Korea, New Zealand, Panama, the EU, the US, Türkiye, not to mention those that are parties to the CPTPP, the Trans-Pacific Strategic Economic Partnership, ASEAN and of the Pacific Alliance (of which Singapore is also a party to).

The provisions that mentioned “innovation” or its variations from those agreements fall into the categories presented in the Table 44 below – being such term more often used in provisions that set forth cooperation commitments, similarly to Chile. One notable difference in relation to Chile is that Singapore has included in two different agreements practically the same provision on Electronics expressly focused on “innovation”, aiming at avoiding the existence of technical barriers to trade of a regulatory nature, which reads as follows:

“CHAPTER 5
TECHNICAL BARRIERS TO TRADE
(...) ANNEX 5-A
ELECTRONICS
(...) Article 3

Innovation

1. No Party shall prevent or unduly delay the placing on its market of a product on the ground that it incorporates a new technology or a new feature which has not yet been regulated.

2. Paragraph 1 shall not prejudice the right of the importing Party, if it demonstrates duly substantiated concerns to the supplier, to require evidence that the new technology or new feature concerned does not create a risk for safety or EMC or any other legitimate objective as listed in Article 2.2 of the TBT Agreement.” (Singapore – Türkiye RTA, in force since 01 Oct. 2017)

Table 44: Number of provisions per category from RTAs to which Singapore is a party to that mention the keyword “innovation” or its variations

Category	Number of RTAs that mention the keyword “innovation” or its variations in that category	Which RTAs?
Cooperation provisions	11	CPTPP; Trans-Pacific Strategic Economic Partnership; Japan – Singapore; Australia – Singapore; India – Singapore; Korea – Singapore; Panama – Singapore; China – Singapore; ASEAN – Australia – New Zealand; Costa Rica – Singapore; EU - Singapore
Preamble/Objectives	6	CPTPP; New Zealand – Singapore; Japan – Singapore; Trans-Pacific Strategic Economic Partnership; Costa Rica – Singapore; US – Singapore; ASEAN – Hong Kong
IP provisions	6	CPTPP; Trans-Pacific Strategic Economic Partnership; ASEAN – Australia – New Zealand; Costa Rica – Singapore; Türkiye – Singapore; EU - Singapore
Provisions on Trade barriers	2	Türkiye – Singapore; EU - Singapore
Medical or Pharmaceutical field provisions	2	CPTPP; EU - Singapore

Development provisions	1	CPTPP
Environmental provisions	1	CPTPP

Source: author's elaboration.

2.3 The case of the United Kingdom

2.3.1 UK's innovation performance according to the GII

According to the 2022 Global Innovation Index (GII), the UK ranks 4th among the 132 economies featured in the said Index¹⁴⁸ - being better positioned than Singapore (7th place) and Chile (50th place), having even placed 2nd twice since 2013. Just as Chile and Singapore, the UK has also been classified by the World Bank as a “high income” country.

Table 45: Rankings of the UK in the GII (2012-2022)

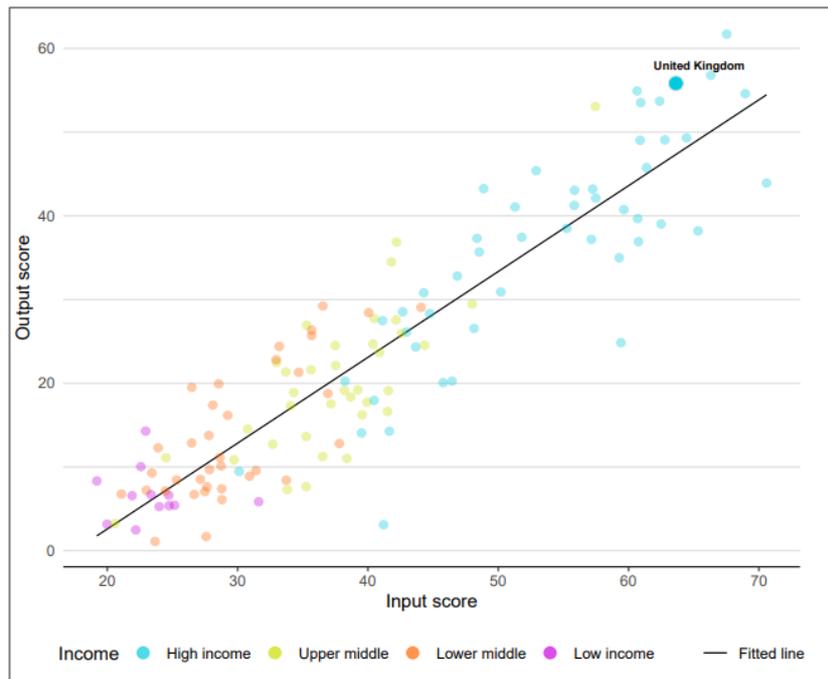
	GII	Innovation inputs	Innovation outputs
2022	4	6	3
2021	4	7	6
2020	4	7	3
2019	5	6	4
2018	4	4	6
2017	5	7	6
2016	3	7	4
2015	2	6	5
2014	2	3	4
2013	3	4	4

Source: author's elaboration, with the data from the GII from 2012-2022

As observed in the table above – and differently from Chile and Singapore –, the UK performs better in innovation outputs than innovation inputs in 2022, meaning it produces more innovation outputs relative to its level of innovation investments, as illustrated in the chart below from the 2022 GII Report:

¹⁴⁸ Cf. <<https://www.wipo.int/edocs/pubdocs/en/wipo-pub-2000-2022-en-main-report-global-innovation-index-2022-15th-edition.pdf>>. Accessed: 29 apr. 2023.

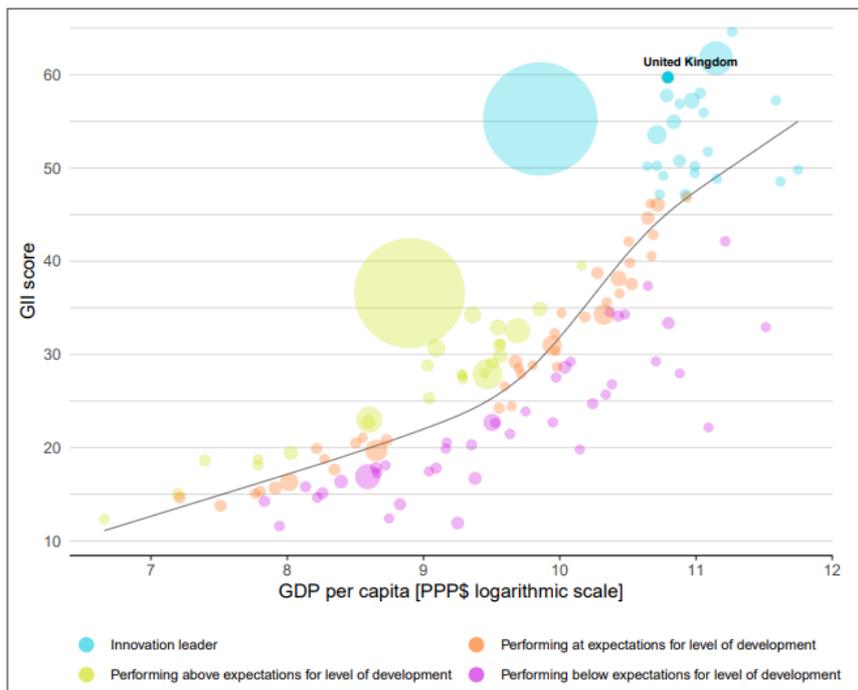
Figure 43: UK’s relationship between innovation inputs and outputs



Source: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/gb.pdf>, p. 3.

Relative to its GDP, the UK’s performance is *above expectations* for its level of development, according to the 2022 GII Report:

Figure 44: UK’s performance in innovation vis-à-vis its level of development



Source: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/gb.pdf>, p. 2.

As for the indicator “regulatory quality”, the UK placed at the 15th place – thus it was neither placed as an innovation strength nor as a weakness of that country:

Figure 45: UK’s innovation strengths and weaknesses

Strengths			Weaknesses		
Code	Indicator name	Rank	Code	Indicator name	Rank
2.3.4	QS university ranking, top 3	2	1.3.2	Entrepreneurship policies and culture	30
3.1.2	ICT use	5	2.1.2	Government funding/pupil, secondary, % GDP/cap	40
3.1.3	Government’s online service	6	2.1.5	Pupil-teacher ratio, secondary	82
3.3.2	Environmental performance	2	3.2.1	Electricity output, GWh/mn pop.	47
4.2.3	Venture capital recipients, deals/bn PPP\$ GDP	6	3.2.3	Gross capital formation, % GDP	109
6.1.5	Citable documents H-index	1	5.3.3	ICT services imports, % total trade	54
6.2.2	New businesses/th pop. 15–64	3	5.3.4	FDI net inflows, % GDP	119
7.1.1	Intangible asset intensity, top 15, %	4	5.3.5	Research talent, % in businesses	32
7.1.3	Global brand value, top 5,000, % GDP	7	6.2.1	Labor productivity growth, %	83
7.2.1	Cultural and creative services exports, % total trade	6	7.2.2	National feature films/mn pop. 15–69	31

Source: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/gb.pdf>, p. 6.

2.3.2 UK’s internal innovation policies

The UK government has acknowledged in the document “Evidence for the UK Innovation Strategy” (2021) that “*innovation is vital for economic growth and productivity improvements as well as creating more and better-paid jobs*”¹⁴⁹.

Though the UK already ranked 4th in the Global Innovation Index, it took note that “*Competition in new technologies has been intensifying, with emerging economies and their businesses increasing their innovation investment substantially*”¹⁵⁰. More concretely, in the document “Evidence for the UK Innovation Strategy” (2021), it highlighted with concern that:

“In 2018, the last year for which official data is available, the UK invested slightly over 1.7% of GDP on R&D while the OECD average was 2.4%, and many emerging economies spent much higher than 3% of their GDP on R&D. Out of the top 2000 R&D investor companies globally, just over 100 have their headquarters in the UK, while only 3 of the top 100 global R&D investors³⁶ locate their headquarters in the UK. The proportion of innovation active businesses³⁷ has decreased in the UK from 49% in 2014-16 to 38% in 2016-18. Figure 1.7 provides a comparison of different types of innovation activities. Most significant change are seen in the proportion of innovation active and wider innovation categories.”¹⁵¹

¹⁴⁹

Cf. <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1023586/evidence-for-innovation-strategy.pdf>, p. 9. Accessed: 29 apr. 2023.

¹⁵⁰

Cf. <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1023586/evidence-for-innovation-strategy.pdf>, p. 16. Accessed: 29 apr. 2023.

¹⁵¹ Id., p. 16.

The UK has established an Innovation Strategy, which sets out a long-term plan for delivering innovation-led growth. Its primary objective is to boost private sector investment across the whole of the UK, creating the right conditions for all businesses to innovate and giving them the confidence to do so.¹⁵² The UK Innovation Strategy sets out the government’s vision to make the UK a global hub for innovation by 2035.

The key actions of the said Strategy are based on four pillars, in wide-ranging areas: (i) unleashing business, aiming at fueling businesses who want to innovate; (ii) people, striving to make the UK “*the most exciting place for innovation talent*”; (iii) institutions & places, to ensure that UK’s research, development and innovation institutions serve the needs of business and places across the UK; and (iv) missions & technologies, to stimulate innovation to tackle major challenges faced by the UK and the world and drive capability in key technologies.

2.3.3 *UK’s trade agreements*

The UK has notified 36 RTAs (until March 13th, 2023) to the WTO that are in force, according to the WTO RTA Database. From those 36 RTAs, 11 contain the keyword “innovation” or its variations in their legal text, which all entered into force in 2021. The parties with which those RTAs were signed are Cameroon, Georgia, Japan, Kenya, Korea, Moldova, Mozambique, Ukraine, the EU, the CARIFORUM States, SACU States and the Eastern and Southern Africa States.

The provisions that mentioned “innovation” or its variations from those agreements fall into the following categories – being the cooperation provisions the most recurrent ones, similarly to what was observed in the case of Chile and Singapore:

¹⁵² Cf. <<https://www.gov.uk/government/publications/uk-innovation-strategy-leading-the-future-by-creating-it/uk-innovation-strategy-leading-the-future-by-creating-it-accessible-webpage>>. Accessed: 29 apr. 2023.

Table 46: Number of provisions per category from RTAs to which the UK is a party to that mention the keyword “innovation” or its variations

Category	Number of RTAs that mention the keyword “innovation” or its variations in that category	Which RTAs?
Cooperation provisions	9	Cameroon – UK; CARIFORUM States – UK; Eastern and Southern Africa States – UK; Georgia – UK; Japan – UK; Kenya – UK; Moldova – UK; SACU and Mozambique – UK; Ukraine - UK
IP provisions	5	CARIFORUM States – UK; Georgia – UK; Japan – UK; Moldova – UK; Ukraine – UK
Environmental provisions	3	Eastern and Southern Africa States – UK; Kenya – UK; Moldova - UK
Provisions on development	3	Georgia – UK; Moldova – UK; Ukraine – UK
Preamble/Objectives	2	Georgia – UK; EU – UK
Medical or Pharmaceutical field provisions	1	Korea – UK
Provisions on SMEs	1	Eastern and Southern Africa States – UK
Provisions on social aspects	1	CARIFORUM States – UK

Source: author’s elaboration.

2.4 The case of Brazil

2.4.1 Brazil’s innovation performance according to the GII

According to the 2022 Global Innovation Index (GII), Brazil ranks 54th among the 132 economies featured in the said Index¹⁵³ - placing at last place when compared with the UK (4th), Singapore (7th) and Chile (50th place). Brazil ranked 2nd among the 18 economies in Latin America and the Caribbean in 2022 and ranked 9th among the 26 upper-middle-income group economies. Moreover, differently from Chile, Singapore and the UK, Brazil has been classified by the World Bank as a “upper middle income” country.

¹⁵³ Cf. <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/br.pdf>. Accessed: 29 apr. 2023.

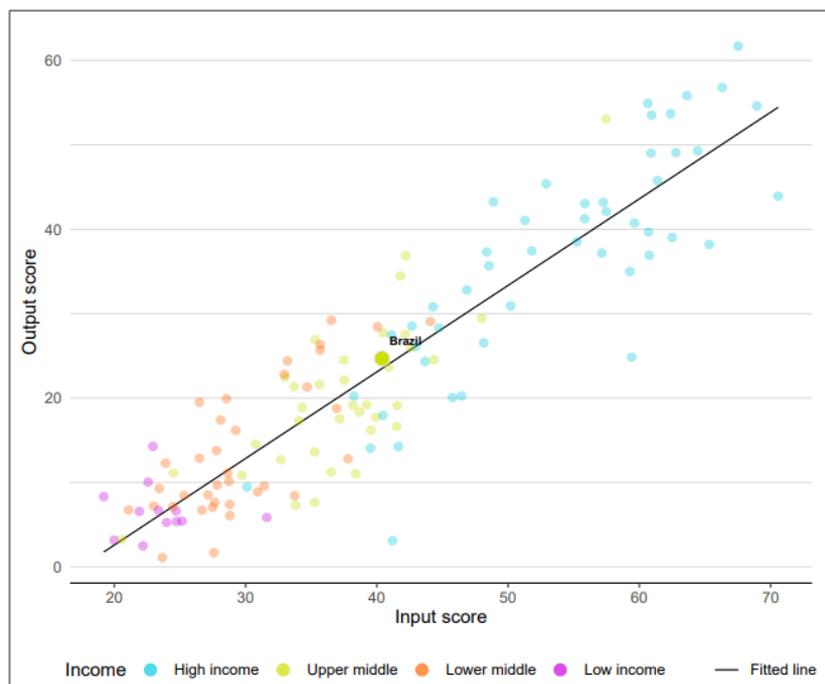
Table 47: Rankings of Brazil in the GII (2012-2022)

	GII	Innovation inputs	Innovation outputs
2022	54	58	53
2021	57	56	59
2020	62	59	64
2019	66	60	67
2018	64	58	70
2017	69	60	80
2016	69	58	79
2015	70	65	74
2014	61	63	64
2013	64	67	68

Source: author's elaboration, with the data from the GII from 2012-2022

As observed in the table above, Brazil performed better in innovation outputs than innovation inputs in 2022, meaning that Brazil produces more innovation outputs relative to its level of innovation performance, according to the 2022 GII Report:

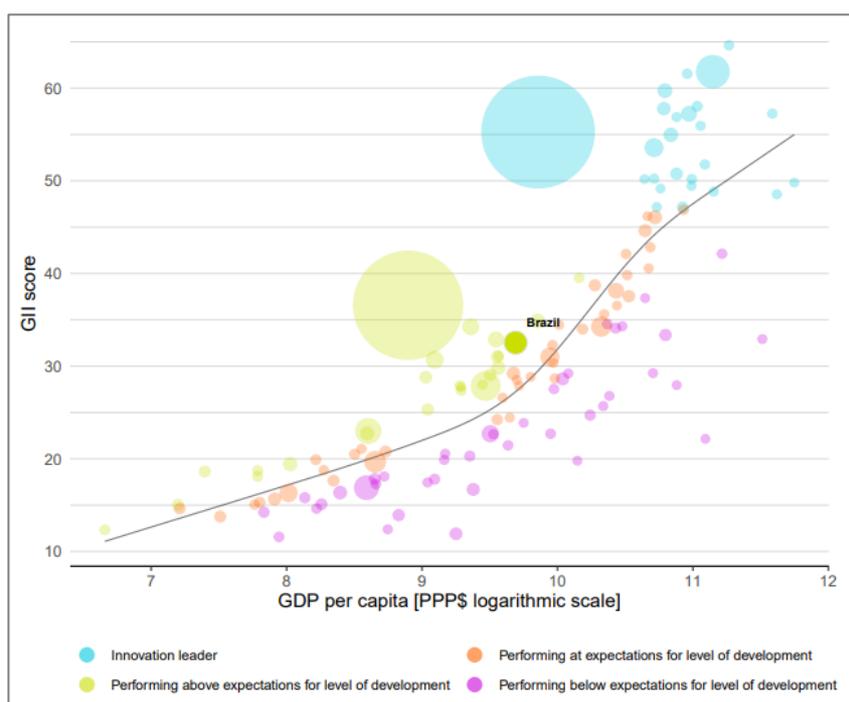
Figure 46: Brazil's relationship between innovation inputs and outputs



Source: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/br.pdf>, p. 3.

Relative to its GDP, Brazil's performance is *above expectations* for its level of development, according to the 2022 GII Report:

Figure 47: Brazil’s performance in innovation vis-à-vis its level of development



Source: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/br.pdf>, p. 2.

In terms of the “regulatory quality” indicator, Brazil ranked in the 84th position out of 132, which is far from Singapore (1st place), the UK (15th place) and Chile (31st place).

Figure 48: Brazil’s innovation strengths and weaknesses

Strengths			Weaknesses		
Code	Indicator name	Rank	Code	Indicator name	Rank
2.1.1	Expenditure on education, % GDP	20	1.3.1	Policies for doing business	103
3.1.3	Government's online service	20	1.3.2	Entrepreneurship policies and culture	66
3.1.4	E-participation	18	2.1.4	PISA scales in reading, maths and science	68
4.3.3	Domestic market scale, bn PPP\$	8	2.2.2	Graduates in science and engineering, %	82
5.3.1	Intellectual property payments, % total trade	14	2.2.3	Tertiary inbound mobility, %	105
5.3.2	High-tech imports, % total trade	19	3.2.3	Gross capital formation, % GDP	108
5.3.3	ICT services imports, % total trade	25	4.1.3	Loans from microfinance institutions, % GDP	57
6.1.5	Citable documents H-index	23	4.3.1	Applied tariff rate, weighted avg., %	107
7.1.1	Intangible asset intensity, top 15, %	17	7.2.2	National feature films/mn pop. 15–69	56
7.1.2	Trademarks by origin/bn PPP\$ GDP	19	7.2.4	Printing and other media, % manufacturing	83

Source: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/br.pdf>, p. 6.

2.4.2 *Brazil's internal innovation policies*

In 2004, Brazil has enacted Law n. 10.973/2004¹⁵⁴, known as the “**Innovation Law**”. It established measures to encourage innovation and scientific and technological research in the productive environment, with a view to technological training, the achievement of technological autonomy and the development of the country's national and regional productive system.

Through Decree n. 10.534 of October 28th, 2020¹⁵⁵, Brazil established its **National Innovation Policy** – with the following objectives: (i) to guide, coordinate and articulate the strategies, programs and actions to encourage innovation in the productive sector, to stimulate the increase in productivity and competitiveness of companies and other institutions that generate innovation in the country; (ii) to establish cooperation mechanisms between the States, the Federal District and the Municipalities to promote the alignment of federal initiatives and policies to promote innovation with the initiatives and policies formulated and implemented by other federative entities. In terms of governance, the Decree has established the creation of an Innovation Chamber, a deliberative body with the objective of structuring and orienting the operationalization of the instruments and the processes necessary to the implementation of the National Innovation Policy.

Amongst the pillars and guidelines of the National Policy, there is no specific initiative so far related to fostering or promoting innovation through trade and/or trade agreements.¹⁵⁶

On July 26th, 2021, Brazil has approved a **National Innovation Strategy for the period of 2021 to 2024**, through Resolution of the Innovation Chamber n. 1/2021.¹⁵⁷ Such strategy was the result of a collaborative effort between representatives of several Ministries of the Brazilian government and of representatives of a number of sectors from civil society, including through public consultations conducted in October 2020.

The focus seems to be on internal policies, rather than in (international) trade policies.

¹⁵⁴ Available at: <https://www.planalto.gov.br/ccivil_03/_ato2004-2006/2004/lei/110.973.htm>. Accessed: 29 apr. 2023.

¹⁵⁵ Available at: <http://www.planalto.gov.br/ccivil_03/_ato2019-2022/2020/decreto/D10534.htm>. Accessed: 29 apr. 2023.

¹⁵⁶ Cf. <<https://inovacao.mcti.gov.br/estrategia/>>. Accessed: 29 apr. 2023.

¹⁵⁷ Cf. <<https://inovacao.mcti.gov.br/wp-content/uploads/2021/07/RESOLUCAO-CI-No-1-DE-23-DE-JULHO-DE-2021.pdf>>. Accessed: 29 apr. 2023.

On another front, in September 2019, Brazil enacted **Law n. 13.874/2019**¹⁵⁸ – known as the **Declaration of Rights of Economic Freedom** –, which establishes norms for the protection of free initiative and the free exercise of economic activity and provisions on the role of the State as a normative and regulatory agent. In the Chapter dedicated to the guarantees of freedom of initiative, the said Law sets forth that it is the duty of the public administration and other entities bound by that Law, in the exercise of regulating a public rule pertaining to the legislation to which this Law deals, unless in strict compliance with the explicit provision in law, to avoid abuse of regulatory power in such a way to unduly issue acts, orders or rules that prevent or delay innovation and the adoption of new technologies, processes or business models, except for situations considered by regulation as of high risk (art. 4, IV of the abovementioned Law).

Furthermore, the said Law sets forth amongst the rights of all people to “*develop, execute, operate or commercialize new types of products and services when infralegal norms become outdated due to internationally consolidated technological development, under the terms established in regulations, which will govern the requirements for gauging the concrete situation, the procedures, the moment and the conditions of the effects*” (art. 3, VI of the said Law).

To regulate Law n. 13.874/2019, one of the Decrees that was issued was **Decree n. 10.229/2020**¹⁵⁹, which specifically regulated the right (provided for in art. 3, VI of the Law in question) to develop, execute, operate, or trade a product or service in disagreement with outdated technical standards – that became outdated by virtue of internationally consolidated technological development, provided that it is not restricted by law and observes the requirements set forth in the said Decree.

2.4.3 *Brazil's trade agreements*

Brazil has notified 9 RTAs (until March 13th, 2023) to the WTO that are in force, according to the RTA Database. According to the SISCOMEX database of the Brazilian government, Brazil is currently involved in the negotiations of 5 trade agreements, as a member of MERCOSUR, namely the following agreements: (i) MERCOSUR – Canada; (ii) MERCOSUR – Lebanon; (iii) MERCOSUR – South Korea; (iv) MERCOSUR – Vietnam; and

¹⁵⁸ Available at: <https://www.planalto.gov.br/ccivil_03/_ato2019-2022/2019/lei/L13874.htm>. Accessed: 29 apr. 2023.

¹⁵⁹ Cf. <http://www.planalto.gov.br/ccivil_03/_ato2019-2022/2020/decreto/D10229.htm>. Accessed: 29 apr. 2023.

(v) MERCOSUR – Indonesia.¹⁶⁰ Moreover, the agreement MERCOSUR – EU is currently in the process of legal revision (known as ‘legal scrubbing’)¹⁶¹. Once that stage is concluded, its legal text will be ready for formal signature and, subsequently, for the internal proceedings of parliamentary approval that will enable the agreement to be ratified and to enter into force.

It is important to underpin that since the creation of MERCOSUR, Brazil has negotiated jointly with the other MERCOSUR members trade agreements with third parties, pursuant to article 1st of the Asunción Treaty¹⁶² (that founded the said bloc) – according to which a Common Market would implicate the adoption of a common trade policy in relation to third States and the coordination of positions before economic and trade regional and international forums.

As already mentioned, none of the RTAs already notified to the WTO by Brazil (either by itself or as party of MERCOSUR) contained any mention to the keyword “innovation” or its variations (on that note, the MERCOSUR – EU mentioned in **Part II, Section 2.3.1** of the present thesis is yet to be signed and thus to be notified to the WTO). Just for comparison purposes, the keyword “technology” or its variations was used in 2 of the trade agreements notified to the WTO so far by MERCOSUR: in the MERCOSUR – Israel RTA, and in the MERCOSUR – Egypt RTA, reading as follows:

“CHAPTER VIII

TECHNICAL AND **TECHNOLOGICAL** COOPERATION

Article 2 - Technical Cooperation

1. The Parties shall establish a **technological** cooperation mechanism in order to develop their industrial sectors and infrastructure, in particular in the fields of agricultural and agroindustrial activities, banking, engineering and construction, chemistry, fine chemistry, fertilizers, pharmacy (especially active principles), automation and robotics, irrigation, alloys and super alloys, avionics, microelectronics, telecommunication, health, medical equipment, education, security equipment systems and other fields. The **technological** cooperation may be comprised of **technological** transfer and joint projects for the development of new **technologies** as well as other initiatives.” (MERCOSUR – Israel RTA, in force since 23 Dec. 2009)

“SECTION III

INVESTMENT AND SERVICES

Article 23 - Investment Promotion

1. The Parties recognize the importance of promoting cross-border investment flows and **technology** transfers as means for achieving economic growth and development. In order to increase investment flows, the Parties or Signatory Parties may cooperate through:

¹⁶⁰ Cf. <<https://www.gov.br/siscomex/pt-br/acordos/acordos-em-negociacao>>. Accessed: 29 apr. 2023.

¹⁶¹ Cf. <<https://www.gov.br/siscomex/pt-br/acordos-comerciais/mercosul-uniao-europeia>>. Accessed: 29 apr. 2023.

¹⁶² The Asunción Treaty was internalized in Brazil through Decree n. 250 of November 21st, 1991. Available at: <http://www.planalto.gov.br/ccivil_03/decreto/1990-1994/d0350.htm>. Accessed: 29 apr. 2023.

- a) exchanging information, including potential sectors and investment opportunities, laws, regulations, and policies, so as to increase awareness on their investment environments;
- b) encouraging and supporting investment promotion activities such as investment conferences, fairs, exhibitions and investment promotion missions;
- c) discussing the possibility of negotiating bilateral investment promotion agreements with a view to furthering investment flows and **technology** transfer; and,
- d) developing mechanisms for joint investments, in particular with small and medium enterprises.” (MERCOSUR – Egypt RTA, in force since 01 Sept. 2017)

As seen above, those provisions are either focused on technological cooperation commitments, or on the importance of promoting technology transfers, with the faculty (and not an obligation) to discuss the possibility of negotiating *investment* promotion agreements to further technology transfer. As previously discussed, technology, technology transfer and technological cooperation do not necessarily equal “innovation” – nevertheless, there seems to be a general understanding that they are somehow related.

Evidently, the absence of explicit references to “innovation” in those trade agreements does not mean that “innovation” is not part of Brazil’s trade policies and concerns, but rather that it may be the case that the Brazilian government has preferred (through explicit or implicit policy decisions) to reserve its policy space to regulate and foster innovation and/or to tackle the access to innovative goods or services through other means rather than international trade agreements. Notwithstanding that, it could have played a part in the fact that Brazil has placed relatively low in the indicator “regulatory quality” on innovation – or, at least, much worse than Singapore (1st), the UK (15th) and Chile (31st), as trade policies are part of the elements analyzed under the indicator “regulatory quality”.

2.5 Final outlook

For ease of reference, the Table below sums up the general data presented in the previous sections in a perhaps overly simplified manner. It is important to clarify that the intent is not to suggest or to push for the existence of a direct correlation (or even causation) between the results shown in the 2022 GII Report and the results presented in Part II of this thesis concerning the international trade agreements and “innovation”. That would be technically inaccurate, considering the complexity of the analysis conducted in the elaboration of the GII Report, which assesses around 80 indicators to reach its conclusions. The idea instead is to provide more background and contextual information to ground the discussions that will be presented in the next Chapter of this thesis on possible ways forward.

Table 48: Rankings of Brazil in the GII (2012-2022)

Country	2022 GII general rank	“Regulatory quality” indicator	Number of RTAs notified to the WTO of which it is a party to	Number of those RTAs that contain the keyword “innovation” or its variations
Chile	50 th	31 st	31	15
Singapore	7 th	1 st	27	15
United Kingdom	4 th	15 th	36	11
Brazil	54 th	84 th	9	0

Source: author’s elaboration.

3 SUMMARY OBSERVATIONS AND CONCLUDING REMARKS

Part III.1 proposed an analysis initially focused on the text of the regulation – the trade agreements that mentioned “innovation” – by itself (since the choice of terms of a treaty do matter for the purposes of the interpretation of a treaty in light of article 31 of the VCLT), to then proceed to a more contextual assessment encompassing national legislation and policies of a carefully selected pool of countries, as well as how far those countries have gone in their “innovation” journeys pursuant to an objective and fairly comprehensive Index on innovation.

The underlying idea was that international trade agreements are not placed in a vacuum space (or at least they should not be treated as such): other contextual elements – specially from a domestic standpoint – should be taken into consideration in the interpretation of those agreements.

The results of the assessments conducted in Part III seem to corroborate some of the impressions and perceptions extracted from the diagnosis presented in Part II of this thesis.

First, by applying the framework proposed by ABBOTT, KEOHANE, MORAVCSIK, SLAUGHTER and SNIDAL on the legalization of a regulation, the outcome confirmed the perception that the legal text of the provisions that mentioned “innovation” from the trade agreements at hand do lean towards a moderate to softer degree of legalization on most of the indicators therein analyzed, which is not per se a negative feature or a flaw.

Secondly, the discussion of whether there is a right to “innovation” aimed at deepening and expanding the contextual analysis on innovation to bring some inputs from other areas as well (such as from the international human rights law) to try to understand from the perspective of the States and authorities why and how innovation the rationale behind the regulation of (or of the lack thereof) on innovation in international trade agreements. The conclusion seems to fall in a grey zone in the sense that there could be arguments specially from international human rights instruments to sustain the understanding that there is a right to innovation, to innovate

and/or to the fruits of innovation – however, such discussion does not seem to have directly influenced the way innovation was mentioned in the trade agreements herein analyzed.

Thirdly, still on the idea of thinking from the perspective of the States, the present work presented some reflections that could (or perhaps should) be attention points specially to drafters, negotiators and policy makers of trade agreements in discussions of if it would be necessary, adequate and/or convenient to explicitly regulate innovation or not in those agreements, and, if so, how to do it so. As demonstrated, there are benefits in clarity, in pushing for new ideas and subjects, and for concrete cooperation actions in implementing some regulation. However, it is also worth pondering whether trade agreements are the adequate forum to do so, and whether it would be the case of focusing the regulation on innovation through domestic regulation, and using trade agreements to provide tools for instance against technical and non-technical barriers to trade that would impact innovation, innovators and/or the circulation of and access to innovative goods and services – which could be a way forward that will be further detailed in the next Chapter (in **Part III.2**).

Finally, Part III.1 looked into domestic innovation regulations and systems from Chile, Singapore, the UK – countries that signed a number of RTAs that contained the keyword “innovation” – and, to compare and contrast, Brazil – a country that did not come up in the results in Part II of this thesis. To add a somewhat objective element to the analysis, selected data from the 2022 GII Report of each of those countries was presented.

Even though it would not be technically accurate to draw emphatic and direct correlations and causation between the results found in the GII Report and the data presented in Part II of this thesis (as the GII Report assesses roughly 80 indicators), it is interesting to note that the general results of the GII Report for the 4 countries abovementioned does seem coherent to some extent to how often “innovation” has come up in international trade agreements to which those countries are parties to. In other words, having solid domestic systems, institutions and policies for innovation could better equip a country or territory to also plan, regulate and to implement policies more strategically in their relations with other nations.

PART III.2: LOOKING OUTWARD AND FORWARD

1 POSSIBLE AVENUES FOR IMPROVEMENT IN THE REGULATION OF “INNOVATION” IN INTERNATIONAL TRADE AGREEMENTS

The previous Chapters aimed at partially detangling the ‘spaghetti bowl’ of trade agreements, looking for the ingredients concerning “innovation” from the past and the present that resulted in such network. From that, it is now clear that there is no single recipe and no uniformity regarding what innovation is from an international trade law perspective, and how to regulate it (through internal regulation and/or also international trade agreements).

With that context in mind, Part III.2 of this thesis will then shift the focus to the future. Presuming that there are States and territories that are or will be interested in incorporating in provisions from international trade agreements regulatory elements on “innovation”, it could be useful to entertain what could be changed and improved from the approaches currently observed, first from a legal design perspective, and then from an angle supported by the tripod law-development-innovation – to reflect whether there is a need for a different approach depending on the level of development of the parties involved or not.

In any case, another presumption that will be subjacent to the ideas put forward henceforth is that regardless of the changes and the suggestions that will be presented, they would still depend on the existence of domestic institutions and policies from the countries concerned supporting those innovation efforts.

1.1 From a legal design perspective

From a legal design standpoint, what kind of improvements could be implemented in international trade agreements to regulate “innovation” in a more concrete and effective fashion, at the same time being attentive to the interests of different stakeholders that could be affected by such regulation, such as private sector companies, or even individuals?

One possible avenue could be through the negotiation and inclusion of provisions in those agreements that could potentially prevent the imposition of barriers to trade against the placing in a given market of an innovative technology or feature that was yet to be regulated domestically – considering that it is often the case that innovation runs faster than regulation.

In this sense, Singapore has included a provision (transcribed below) in their RTAs with Türkiye (in force since 2017) and with the EU (in force since 2019) that could be considered as

a reference by policy makers for future agreements, as it aims to avoid that the absence of regulation becomes a barrier to the placing on the market of a product “*on the grounds that it incorporates a new technology or a new feature that has not yet been regulated*”. Though in the case of those agreements the clause is restricted to “**electronics**”, there could be an interest to broaden its scope and its underlying logic to other sectors and products.

Singapore – Türkiye RTA (in force since 01 Oct. 2017):

“CHAPTER 5
TECHNICAL BARRIERS TO TRADE
(...) ANNEX 5-A
ELECTRONICS
(...) Article 3

Innovation

1. No Party shall prevent or unduly delay the placing on its market of a product on the ground that it incorporates a new technology or a new feature which has not yet been regulated.
2. Paragraph 1 shall not prejudice the right of the importing Party, if it demonstrates duly substantiated concerns to the supplier, to require evidence that the new technology or new feature concerned does not create a risk for safety or EMC or any other legitimate objective as listed in Article 2.2 of the TBT Agreement.”

Singapore – EU RTA (in force since 21 Nov. 2019):

“ANNEX 4-A
ELECTRONICS
ARTICLE 3

Innovation

1. No Party shall prevent or unduly delay the placing of a product on its market on the grounds that the product incorporates a new technology or a new feature which has not yet been regulated.
2. Paragraph 1 shall not prejudice the right of the importing Party, where it demonstrates duly substantiated concerns to the supplier of a product referred to in paragraph 1, to require evidence that the new technology or new feature concerned does not create a risk for safety or EMC or for any other legitimate objective as listed in Article 2.2 of the TBT Agreement.”

One interesting feature of the “Singaporean provision” abovementioned is that it preserves the right of the importing party to require evidence to the supplier that “*the new technology or new feature concerned does not create a risk for safety of EMC¹⁶³ or any other legitimate objective as listed in Article 2.2 of the TBT Agreement*”, if the importer “*demonstrates duly substantiated concerns to the supplier*”. Just for reference, the “legitimate objectives” mentioned in Article 2.2 of the TBT Agreement are, “*inter alia: national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. In assessing such risks, relevant elements*

¹⁶³ EMC means “Electromagnetic Compatibility”, i.e. the ability of different electronic devices and components to work correctly even in the presence of other devices that emit electromagnetic waves. Cf. <<https://www.techopedia.com/definition/1737/electromagnetic-compatibility-emc>>. Accessed: 29 apr. 2023.

of consideration are, inter alia: available scientific and technical information, related processing technology or intended end-uses of products.”¹⁶⁴

Other provisions that are worth mentioning are those on **“pharmaceutical products”** and **“medical devices”** (transcribed below) – incorporated in some of the trade agreements signed specially by the United States and Korea. As already seen in **Section 2.1.2 of Part II** of this thesis, such provisions acknowledge the need to promote *“timely and affordable”* access to innovative pharmaceuticals and/or to medical devices, *“through transparent and accountable procedures”*, but with an important caveat: *“without impeding a Party’s ability to apply appropriate standards of quality, safety, and efficacy”*. The US – Australia RTA reinforces that idea in another provision on *“Regulatory Cooperation”* – in which it is provided that the regulatory agencies of both parties would advance their existing dialogue *“with a view to making innovative medical products more quickly available to their nationals”*:

United States – Australia RTA (in force since 01 Jan. 2005):

“ANNEX 2-C PHARMACEUTICALS

1. AGREED PRINCIPLES

The Parties are committed to facilitating high quality health care and continued improvements in public health for their nationals. In pursuing these objectives, the Parties are committed to the following principles:

- (a) the important role played by **innovative** pharmaceutical products in delivering high quality health care;
- (b) the importance of research and development in the pharmaceutical industry and of appropriate government support, including through intellectual property protection and other policies;
- (c) the need to promote timely and affordable access to innovative pharmaceuticals through transparent, expeditious, and accountable procedures, without impeding a Party’s ability to apply appropriate standards of quality, safety, and efficacy; and**
- (d) the need to recognize the value of **innovative** pharmaceuticals through the operation of competitive markets or by adopting or maintaining procedures that appropriately value the objectively demonstrated therapeutic significance of a pharmaceutical.

(...)

4. REGULATORY COOPERATION

The Parties shall seek to advance the existing dialogue between the Australian Therapeutic Goods Administration and the U.S. Food and Drug Administration **with a view to making innovative medical products more quickly available to their nationals.**”

EU – Korea RTA (in force since 01 Jul. 2011):

“ANNEX 2-D

PHARMACEUTICAL PRODUCTS AND MEDICAL DEVICES

Article 1

General provisions

Recognising that while there are differences between each Party’s health care system, the Parties share a commitment to promoting the development of and facilitating

¹⁶⁴ Available at: <https://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm>. Accessed: 29 apr. 2023.

access to high-quality patented and generic pharmaceutical products and medical devices, as a means of continuing to improve the health of their populations. In pursuing these objectives, the Parties confirm their shared principles with respect to the importance of:

(...) (c) appropriate government support of academic and commercial research and development, intellectual property protection and other incentives for **innovation** in the research and development of pharmaceutical products and medical devices;

(d) promotion of innovation of, and timely and affordable access to, safe and effective pharmaceutical products and medical devices through transparent and accountable procedures, without impeding a Party's ability to apply high standards of safety, efficacy and quality;

(...)"

1.2 From a development perspective

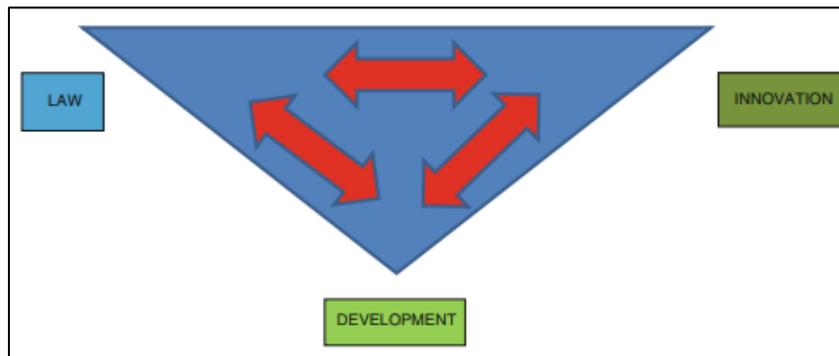
Another relevant question that deserves further thought is the following: is there a need for a different approach for developing and non-developed countries, concerning the regulation of “innovation” by international trade agreements?

On this issue of the relationship between **law, innovation and development**, the approach adopted in the book “Law, Development and Innovation” (2016)¹⁶⁵ is worth mentioning, as it seems to be a careful and weighted one. BELLANTUONO and LARA (editors of the publication abovementioned) proposed to explore the subject of law, development and innovation through viewing it as **a triangular relationship**, in an attempt to start an inquiry on the links between them.

According to the said authors, the triangular shape suggests that: (i) there is no hierarchical relationship or sequence between law, innovation and development; (ii) the two-way interaction between law and innovation is one of the keys to unlock development – in other words, that “*development is directly dependent on the coordination of the two parallel dynamics of technological and legal change*”. The said authors indicated then that the task would be to understand how that interaction unfolds in the real world and how the two parallel dynamics can be influenced.

¹⁶⁵ BELLANTUONO, Giuseppe (ed.); LARA, Fabiano Teodoro (ed.). Law, Development and Innovation. Geneva, Switzerland: Springer International Publishing AG Switzerland, 2016, p. 2-6.

Figure 49: The triangular relationship between law, development, and innovation



Source: BELLANTUONO and LARA (2016), p. 6.

Particularly in relation to the issue of the hierarchy between law, development and innovation, the authors envisioned three plausible options, having found some truth in each of them: (i) in the first one, legal change drives innovation, which in turn leads to development; (ii) the second option would be to assume that development itself, driven by exogenous factors, fosters innovation – and, in this scheme, legal change would be a by-product of development and technological change; (iii) the third option assumes that exogenous factors (e.g. imitation or diffusion) can drive innovation, which in turn fosters a demand for legal change, being development the outcome of this interaction between innovation and law. After assessing those three options, the authors cautioned that such options are limited as they actually simplify the interaction between law and innovation, concluding that there is in fact no clear sequence or hierarchical relationship between them.¹⁶⁶

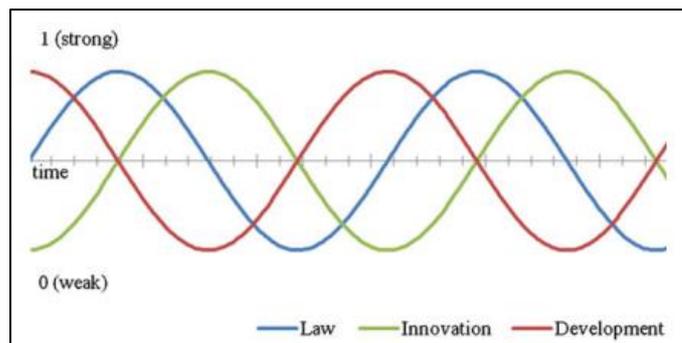
In addition to that, the authors also presented considerations on the **dynamics** of the triangular relationship in question. They proposed to represent it in a timeline, acknowledging at the outset that infinite configuration possibilities could stem from that. With that in mind, they focused only on the scenarios that *increase* development (as they would be only desirable scenarios), with the objective of finding the best available design of the interplay between law, development and innovation in different scenarios and contexts.

Three different configurations were thereby presented:

¹⁶⁶ Id., p. 5. Further on that, the authors argued that: “Both on the technological and on the legal side, the dynamics of change display features that rule out descriptions of linear and well-ordered sequences. With regard to **processes of technological innovation**, a large literature shows that they are non-linear, systemic and bound to produce a lot of positive externalities. Of course, **these are exactly the features that make it so difficult for both developing and developed countries to devise efficient innovation policies**. With regard to **processes of legal innovation**, it has already been underlined above that interconnectedness among institutions plays a major role with respect to both the pace and the direction of change. It can be added that the weight of the same factor (e.g. the efficiency of the judicial system or the legislative process) can be very high in one institutional context and very low in another. Thus, **the number of possible combinations is large**. (...)”.

1. **Configuration 1:** it adopts the assumption that an institutional environment with strong legal institutions could drive a strong rate of innovation, in turn positively influencing economic development over time, in cyclical periods. In such scenario, over time, legal institutions may become weak, pulling down innovation and, consequently, development, as illustrated below:

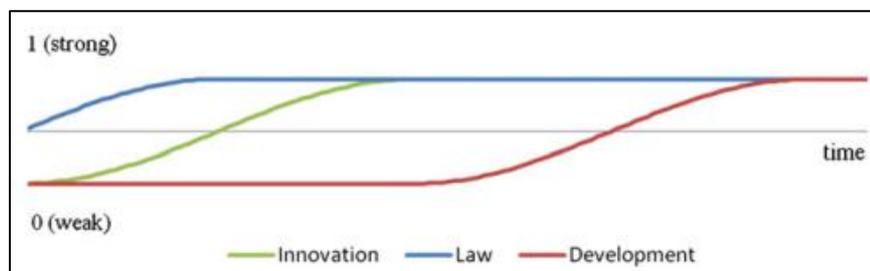
Figure 50: Dynamic relationships over time: the example of cycling



Source: BELLANTUONO and LARA (2016), p. 7.

2. **Configuration 2:** in this scenario, strong legal institutions influence positively the rate of innovation, leading to a strong rate of development, as represented below:

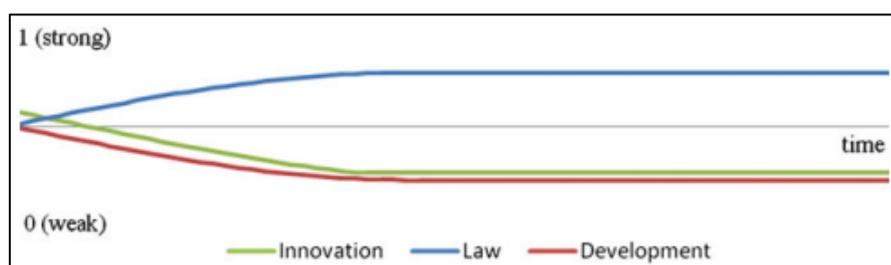
Figure 51: Law driving up innovation and development



Source: BELLANTUONO and LARA (2016), p. 7.

3. **Configuration 3:** in this scenario, strong legal institutions, like very strict intellectual property rights, negatively influence the rate of innovation, leading to a very weak rate of development, as illustrated below:

Figure 52: Law pulling down innovation and development



Source: BELLANTUONO and LARA (2016), p. 8.

Based on the analysis of the different configurations above, BELLANTUONO and LARA concluded that those “*different combinations suffice to show that the law-innovation nexus cannot be disentangled from the contexts prevailing in every continent and country*”. In this sense, the authors emphasize that “*the triangular relationship among law, development and innovation can only be understood by analyzing the two-way interactions among international, regional, national and local levels of rulemaking and enforcement*”¹⁶⁷.

DOSI and STIGLITZ (2014)¹⁶⁸ went even further to argue that countries with different levels of economic development, innovation capabilities, integration in international trade, or institutional strength may need completely different rules.

A few of the trade agreements analyzed in the present thesis involving countries with different levels of economic development seemed to have expressly acknowledge that such difference shall be taken into consideration somehow for the purposes of those agreements. For instance, the RTA between ASEAN States and Hong Kong (in force since 2021) set forth in the provision on the Objectives of the agreement that the cooperation commitments included therein would take “*into account the different levels of economic development of the parties, specially the least-developed ASEAN Member States*” – being one of the commitments to create “*new opportunities for trade and investment and promoting competitiveness and innovation through the involvement, where appropriate, of the private sector including the small and medium enterprises (SMEs) (...)*”, as detailed below:

¹⁶⁷ Id., p. 11.

¹⁶⁸ DOSI, Giovanni; STIGLITZ, Joseph E. The role of intellectual property rights in the development process, with some lessons from developed countries: an introduction in CIMOLI, Mario et al. (eds.) Intellectual property rights: legal and economic challenges for development. Oxford: Oxford University Press, 2014, pp 1–39.

ASEAN¹⁶⁹ – Hong Kong RTA (in force since 10 Feb. 2021):

“Article 1

Objectives

1. The Parties, in pursuit of their mutual benefits, agree to undertake economic and technical co-operation under this Chapter in order to enable the Parties to facilitate, implement, expand, and enhance the benefits of this Agreement, **taking into account the different levels of economic development of the Parties, especially the least-developed ASEAN Member States.**
2. The economic and technical co-operation under this Chapter shall aim, inter alia, at:
 - (a) supporting the effective and efficient implementation and utilisation of this Agreement;
 - (b) creating new opportunities for trade and investment and promoting competitiveness and **innovation** through the involvement, where appropriate, of the private sector including the small and medium enterprises (SMEs) by, inter alia, facilitating the integration of SMEs into Global Value Chains, and encouraging SMEs to organise or participate in trade promotion events;
 - (c) promoting and deepening the level of economic and technical co-operation among the Parties by implementing the Work Programme under Article 4 (Implementation of Economic and Technical Co-operation); and
 - (d) enhancing the capabilities of the Parties through capacity building activities to enable the Parties to take full benefit of this Agreement.”

There were other trade agreements that connected innovation and development, though with somewhat generic terms – for instance, the agreements signed by the CARIFORUM States with the EU (in force since 2008) and the UK (in force since 2021), which: (i) acknowledged that fostering innovation is a crucial element in “*achieving sustainable development*” and “*ensuring the gradual integration of CARIFORUM States into the world economy*” – thus recognizing that the level of development played a part in the agreements; and (ii) recognized that the protection and enforcement of IP plays a key role in fostering innovation and “*are determined to ensure increasing levels of protection appropriate to their levels of development*”, as seen below:

EU – CARIFORUM States¹⁷⁰ RTA (in force since 29 Dec. 2008):

“CHAPTER 2

Innovation and intellectual property

Article 131

Context

1. The Parties agree that fostering **innovation** and creativity improves competitiveness and is a crucial element in their economic partnership, in **achieving sustainable development**, promoting trade between them and **ensuring the gradual integration of CARIFORUM States into the world economy.**

¹⁶⁹ According to the WTO RTAs Database, ASEAN is comprised in this case by: Brunei Darussalam; Myanmar; Cambodia; Indonesia; Lao People's Democratic Republic; Malaysia; Philippines; Singapore; Viet Nam; Thailand.

¹⁷⁰ According to the WTO RTAs Database, the CARIFORUM States at that point of time were: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

2. They also recognise that the protection and enforcement of intellectual property plays a key role in fostering creativity, innovation and competitiveness, **and are determined to ensure increasing levels of protection appropriate to their levels of development.**

UK – CARIFORUM States¹⁷¹ RTA (in force since 01 Jan. 2021):

“CHAPTER 2

Innovation and intellectual property

Article 131

Context

1. The Parties agree that fostering innovation and creativity improves competitiveness and is a crucial element in their economic partnership, in achieving sustainable development, promoting trade between them and **ensuring the gradual integration of CARIFORUM States into the world economy.**

2. They also recognise that the protection and enforcement of intellectual property plays a key role in fostering creativity, innovation and competitiveness, and **are determined to ensure increasing levels of protection appropriate to their levels of development.**

The CPTPP, in turn, acknowledged that each of its parties may have its own development goals – when it provided that the parties, whenever mutually agreed, shall endeavor to facilitate joint activities (amongst them, expanding engagement in science, technology and research to foster the application of innovative uses of science and technology) “so that the benefits derived from this Agreement might more effectively advance each Party’s development goals”.

CPTPP¹⁷² (in force since 30 Dec. 2018):

“CHAPTER 23

DEVELOPMENT

(...) Article 23.5: Education, Science and Technology, Research and Innovation

(...)

Article 23.6: Joint Development Activities

(...) 2. When mutually agreed, two or more Parties shall endeavour to facilitate joint activities between relevant government, private and multilateral institutions **so that the benefits derived from this Agreement might more effectively advance each Party’s development goals.** These joint activities may include:

(...) (b) consideration of ways to expand engagement in science, technology and research to foster the application of innovative uses of science and technology, promote development and build capacity;”

The UNCTAD, in the Report “*Technology and Innovation Report 2023 – Opening Green Windows: Technological opportunities for a low-carbon world*”¹⁷³, has noted that “in developing countries, opening green windows is unlikely to happen naturally as a result of

¹⁷¹ According to the WTO RTAs Database, the CARIFORUM States are comprised of: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Haiti; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

¹⁷² According to the WTO RTAs Database, the parties to the CPTPP are: Australia; Brunei Darussalam; Canada; Chile; Japan; Malaysia; Mexico; New Zealand; Peru; Singapore; Viet Nam.

¹⁷³ Available at: <https://unctad.org/system/files/official-document/tir2023_en.pdf>. Accessed: 29 apr. 2023.

businesses seeking greater efficiency and profits; it has to be the consequence of deliberate government action” (p. xxiv). Thus, it sustained that the support of the international community and official development assistance would be essential to enable the least technologically able countries to seize green opportunities, based on equitable opportunities to marshal the necessary technologies and to build innovation capabilities.

In this context, the said UNCTAD Report argued that cooperation through international trade would be one way to move forward, briefly suggesting some actions that could be taken, such as: (i) that, on the demand side, developed countries should open their markets to production from latecomer economies – though recognizing that identifying the products and countries that should benefit from such a proposal would probably need a new institutional structure; (ii) that, as a pilot, an international program of guaranteed purchase of tradable green items (such as products, parts and components used for renewable energy) is set up; and (iii) that countries with a larger domestic market could subsidize nascent sectors for components for domestic solar and wind energy products.

Those suggestions focus on (or adopt as a precondition) the importance that countries that are less technologically able become capable of producing green innovation themselves. After all, the Report also recognizes that technological and innovation waves “*reach developing countries after a delay – arriving initially in the form of consumer goods as, for example, with the introduction of smartphones and e-commerce. Only later have developing countries applied new technologies to their own production, through investment by multinational companies and later by domestic firms*” (cf. Chapter I, p. 5). To avoid that developing countries have to wait for new technologies to arrive, the Report further suggests that those countries try to start to ride the waves of technology in their early stages – which would involve actions that would demand government intervention domestically, and it could be influenced by global agendas, especially those related to climate change such as the Paris Agreement.

Apart from the global agendas’ side, all other actions suggested pertained to actions that each government could implement domestically – which ties with the presumption adopted in the beginning of this Chapter that all changes and improvements herein suggested would very much depend on the existence of domestic institutions, policies and regulation conducive to innovation.

2 IS THERE A NEED AND/OR CONVENIENCE FOR A MULTILATERAL AGREEMENT SPECIFICALLY ON “INNOVATION”?

The scenario depicted so far is very much fragmented from a regulatory standpoint. In such context, the question that could arise would be whether there is a need and/or convenience for a multilateral trade agreement specifically on “innovation”, and also if there is enough momentum and appetite to even embark on such an inquiry.

It seems too early and too premature to reach any consensus on a multilateral trade agreement dedicated to “innovation”. In fact, even the question of whether the issue of “innovation” should be dealt with in the WTO (and, if so, how) has not been brought by the WTO members so far.

Notwithstanding that, considering that there are a growing number of trade agreements that have started putting forward chapters, sections and/or provisions specifically on “innovation”, there seems to be room and substrate to at least start a conversation around the idea of a more systematic and encompassing agreement and/or regulation on “innovation”.

It is worth remembering, however, that the proliferation of RTAs that was seen in the last years may be due in part to the frustration of negotiators attempting to achieve multilateral free trade.¹⁷⁴ On the other hand, RTAs could serve as “building blocks” for global free trade, to facilitate a process of multilateral trade liberalization – or, on the contrary, could also represent “stumbling blocks” in some circumstances.¹⁷⁵

Governments might be willing to compromise their sovereignty through entering into trade agreements for interdependence reasons – each has an interest in the choices made by their trading partners and seek to exchange concessions.¹⁷⁶

The first wave of regionalism, between World War II and the late 1980s, proved to be unsuccessful mainly because most regional integrations were formed between developing countries for which regional trade and investment co-operation failed to generate significant

¹⁷⁴ GRANT, Jason H.; LAMBERT, Dayton M. Do regional trade agreements increase members’ agriculture trade? In *American Journal of Agricultural Economics*, v. 90, n. 3, Oxford University Press, 2008, pp. 765-82. Available at: <http://www.jstor.org/stable/20492327>. Accessed: 29 apr. 2023.

¹⁷⁵ GROSSMAN, G. M. The Purpose of Trade Agreements. In: ELIEZER, E.; NORDSTRÖM, H. K. (eds.). *Handbook of Commercial Policy*, v. 1A. Elsevier B.V., 2016, p. 427. Available at: <https://www.princeton.edu/~grossman/Ch%207%20from%20Handbook%20of%20Commercial%20Policy.pdf>. Accessed: 29 apr. 2023.

¹⁷⁶ *Id.*, p. 381.

benefits. By contrast, the second wave of regionalism has been more durable due to wider and deeper integration that includes both developed and developing countries as members.¹⁷⁷

Thus, by initiating a conversation of whether there is the need and/or convenience to take steps towards a multilateral agreement on the subject does not mean to undermine the significance and relevance for many State parties to continue to negotiate and enter into RTAs, which could indeed bring benefits to their signatories (otherwise, it would not make much sense to invest time and resources in entering into an agreement that is contrary to the overall interests of a given country or territory).

On a separate note, instead of the idea of pursuing a new multilateral agreement on “innovation”, there is a discussion in the literature on whether it would be the case to revive the Agreement on Subsidies and Countervailing Measures (SCM Agreement) provisions defining R&D subsidies as non-actionable, aiming at incentivizing the creation and further dissemination of knowledge at re-establishing policy space for such measures. Concerning that discussion, COELHO and SPADANO (2022) argued that “*the rules that currently apply under the SCM Agreement, as well as under the Agreement on Agriculture, already seem to leave room for R&D subsidies that are not specific and, consequently, are not trade-distorting*”, and that “*the current WTO rules provide a satisfactory normative framework to regulate R&D subsidies or, in the words of Keith Markus, ‘a sensible policy foundation’ and an ‘apparent equilibrium’ that ‘one should be cautious about disrupting’*”.¹⁷⁸

In any case, even if those provisions were to be revived, even though they could contribute to further incentive innovation through R&D, there is a growing understanding (as seen in Part I of this thesis) that innovation actually is not limited to R&D, thus, the discussion on whether to bring those provisions back would not replace the discussion on whether there would be a need or convenience for a multilateral trade agreement on innovation.

2.1 The case of an electronic commerce agreement under the WTO

For reference purposes, it might be useful to briefly revisit the historic evolution of the negotiations towards a multilateral agreement on e-commerce before the WTO, as it could

¹⁷⁷PARK, Innwon. Regional Trade Agreements in East Asia: Past and Future in Development Policy Review, v. 38, n. 2, p. 206, footnote 1, 2020.

¹⁷⁸ COELHO, Luiza Tângari; SPADANO, Lucas. Cross-Border Knowledge Flows under International Trade Agreements: A Need for New Multilateral Disciplines? In: In: TAUBMAN, Antony (ed.); WATAL, Jayashree. Trade in Knowledge: Intellectual Property, Trade and Development in a Transformed Global Economy, Cambridge University Press, p. 675, 2022.

provide inputs for the reflection on the adequacy, convenience, and viability of a multilateral agreement on innovation.

In 1998, the Declaration on Global Electronic Commerce adopted by the WTO's Second Ministerial Conference urged the WTO General Council to establish a comprehensive work programme to examine all trade-related issues arising from global e-commerce (WT/L/274). The following WTO bodies – the Council on Trade in Goods, the Council on Trade in Services, the Trade Related Intellectual Property Rights Council and the Committee on Trade and Development – were then instructed to explore the relationship between existing WTO agreements and e-commerce, under the continuous review of the General Council.¹⁷⁹ Moreover, the Declaration called for a provisional moratorium on custom duties on electronic transmissions.

The Work Programme on Electronic Commerce was then adopted, covering a wide range of issues such as the protection of privacy and public morals and prevention of fraud, access to and use of public telecommunications transport networks and services, rules of origin, increasing the participation of developing countries in the e-commerce marketplace, protection and enforcement of copyright and trademarks, enhancing the participation of developing countries and their small and medium sized enterprises (SMEs), as well as economic development opportunities for developing countries afforded by e-commerce.

Discussions on e-commerce continues in the four WTO bodies since then. In 2017, a group of 71 WTO members agreed at the 11th Ministerial Conference to initiate exploratory work towards future WTO negotiations on trade-related aspects of e-commerce in a Joint Initiative. In 2019, 76 WTO members confirmed their intention in a joint statement to commence those negotiations, having agreed to “*seek to achieve a high standard outcome that builds on existing WTO agreements and frameworks with the participation of as many WTO members as possible*”¹⁸⁰. The negotiations in the context of the Joint Initiative are based on members' textual proposals made available to the whole WTO membership, under six main themes: enabling electronic commerce, openness and electronic commerce, trust and digital trade, cross-cutting issues, telecommunications, and market access.

The COVID-19 pandemic has “*highlighted the digital economy's importance, accelerated the digital transformation and heightened the need for global rules governing digital trade*”, as stated by the Ministers of Australia, Japan and Singapore in the December

¹⁷⁹ Cf. <https://www.wto.org/english/thewto_e/minist_e/mc11_e/briefing_notes_e/bfecom_e.htm>. Accessed: 07 ap. 2023. Accessed: 29 apr. 2023.

¹⁸⁰ Cf. <https://www.wto.org/english/tratop_e/ecom_e/joint_statement_e.htm>. Accessed: 29 apr. 2023.

2021 Joint Statement Initiative on E-commerce¹⁸¹. In the same Statement, the said Ministers underlined that “good convergence” has been achieved in negotiating groups on eight articles: online consumer protection; electronic signatures and authentication; unsolicited commercial electronic messages; open government data; electronic contracts; transparency; paperless trading; and open internet access. Moreover, they signaled that text proposals were consolidated in other areas as well, including on customs duties on electronic transmissions, cross-border data flows, data localisation, source code, electronic transactions frameworks, cybersecurity, and electronic invoicing – which could be seen as deeper integration issues –, as well as advanced discussions on market access.

At their March 2023 meetings, participants of the Joint Initiative discussed development-related proposals and data flow issues, seeking convergence on several topics with the aim of concluding on the substance by the end of 2023¹⁸².

In other words, **there have been ongoing discussions on multilateral rules for e-commerce for 25 years**. Much has changed throughout the years, with technological advancements and the rise of new topics and concerns, which could make negotiations even more difficult in an ever-evolving scenario. It has been challenging for the WTO members to reach converging views on a variety of issues, so much that the co-convenors of the negotiations – Australia, Japan and Singapore – called for more flexibility, creativity and leadership. Notwithstanding that, as mentioned, it seems like the participants were able to reach so far some level of convergence (though apparently not enough yet to conclude a multilateral agreement) in topics that have intricate technical aspects and that involve cross border operations, such as electronic contracts and paperless trading.

In parallel to the efforts of the WTO Joint Initiative, provisions expressly addressing e-commerce have been adopted in several RTAs (in 75 out of the 275 RTAs that had been notified as of May 2017), increasingly with more detail but still highly heterogeneous, as highlighted in the working paper “Provisions on Electronic Commerce in Regional Trade Agreements” authored by José-Antonio Monteiro and Robert Teh in 2017.¹⁸³ According to such authors, the increasing number of RTAs with specific provisions related to e-commerce may stem in part from a perception that the work programme on e-commerce has made no substantive progress

¹⁸¹ Available at: <https://www.wto.org/english/news_e/news21_e/ji_ecom_minister_statement_e.pdf>. Accessed: 29 apr. 2023.

¹⁸² Cf. <https://www.wto.org/english/news_e/news23_e/jsec_30mar23_e.htm>. Accessed: 29 apr. 2023.

¹⁸³ Available at: <https://www.wto.org/english/res_e/reser_e/ersd201711_e.pdf>. Accessed: 29 apr. 2023.

in the WTO since its adoption, in 1998 – nevertheless, with the caveat that the work programme was not mandated to conduct rulemaking.

Hence, it is worth noting that maybe it has been possible to reach some common ground on a couple of issues because there are a number of very concrete, technical and even operational aspects being discussed concerning digital trade amongst the WTO members. That could not be the case of eventual future discussions on an “innovation” multilateral agreement, as it may be more challenging to define concrete, determined and technical issues on that theme to be discussed and negotiated, not to mention the fact that there may be some overlap with discussions that are advancing under other ‘labels’, such as on digital trade, environmental issues and sustainable development and trade.

3 CONCLUSION

A jigsaw puzzle with pieces in the making



Credit: iStock.com/BrianAJackson

3 CONCLUSION

Sticking with the ‘spaghetti bowl’ allegory previously brought up, if “innovation” was one of the ingredients in the recipe, its flavor today could be deemed as very mild, almost bland.

After all, as verified through the empirical analysis of the legal texts of the international trade agreements detailed in Part II of this thesis, though there has been an increasing use of the term “innovation”, especially in more complex agreements (FTAs and EIAs) involving high income or upper middle income countries, the references are not so abundant, and most often limited to “softer” (though still relevant for the purposes of treaty interpretation) provisions such as on Cooperation commitments and in the Preamble and the overarching Objectives of those agreements. There were also recurring mentions in IP chapters and sections, but it is clear that most of the agreements acknowledge, implicitly or explicitly, that “innovation” is not restricted to IP issues. The versatile and multidisciplinary nature of the concept of innovation has reflected in the fact that it appeared in provisions on a variety of subjects and sectors, and in more recent agreements signed or under negotiation, ‘newer’ subjects are starting to appear in provisions that mention innovation (though still in generic terms), such as artificial intelligence and data protection.

It is also noticeable that there is no set definition of “innovation” under international trade law and under international law more generally (thus being the ‘elephant’ in the room that no one has seen, but that everyone knows that exists). Almost all the agreements herein analyzed have not defined that term in their legal texts. That could be so due to the complexity of the term, or because the drafters and negotiators did not feel the need to include such a definition, as a priori it may not be seen as a controversial topic *vis-à-vis* the myriad of other topics that are thoroughly discussed in the negotiations’ phase.

The assessment conducted in Part II also evidenced that there are some frameworks, model provisions and set phrases that mention “innovation” that seem to be repeated and recycled amongst different agreements, with little to no adaptation, as if they were previously set puzzle pieces that may be chosen to assemble an agreement with the appearance of having a more modern outlook. Those are for instance provisions acknowledging the importance of innovation for development, economic growth, amongst other goals – thus portraying innovation as a tool for other objectives. The echoing of such provisions may be due to the existence of some countries or blocs of countries that have signed multiple agreements throughout time, almost acting like ‘hubs’, such as the EU.

All in all, it seems like there is no holistic approach to regulating innovation neither through multilateral trade agreements, nor through plurilateral or bilateral ones. On the issue of innovation, it seems like the RTAs are indeed being used as ‘regulatory laboratories’ rather than propellers of fragmentation, as fragmentation seems to be of the nature of innovation (as a complex and multidimensional concept).

Due to such complex nature, it is understandable that many countries and territories apparently prefer to regulate it through domestic legislation, institutions, and policies. After all, it seems to be more productive to first develop a stronger internal innovation system, institutions, policies and priorities, preserving and exercising the so-called ‘policy space’ of a country, to then proceed to discuss and implement international policies and initiatives on the subject, especially considering that many of them rely on the idea of a two-sided cooperation. There are also agreements that have more of a nature of one side providing more technical and knowledge assistance to the other side – specially in those agreements involving LDCs and low-income countries –, which also have their value and importance.

In any case, it seems possible – and perhaps advisable – to advance domestically and internationally on that subject at the same time. Nevertheless, it could be productive to try to think on both together with a more strategic and holistic view, also collecting different views and demands from the various stakeholders (such as from the private sector, the government staff that deal with customs, academia, creators and scientists etc.) that could be affected and benefitted with such regulations.

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¹⁸⁴ The International Agreements mentioned in this Section do not encompass the RTAs that are listed in Annex C of this thesis.

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5 ANNEXES

5.1 Annex A: Tables of the breakdown by country or territory of the analyses conducted in Part II

Table 49: Breakdown by country or territory of the number of RTAs of which those countries are parties of that mention the keyword “innovation” or its variations

Part of a bloc or plurilateral agreement?	Countries	Number of RTAs of which it is a party of that mention the keyword "innovation" or variations
EU	Austria	27
	Belgium	27
	Bulgaria	27
	Croatia	27
	Cyprus	27
	Czech Republic	27
	Denmark	27
	Estonia	27
	Finland	27
	France	27
	Germany	27
	Greece	27
	Hungary	27
	Ireland	27
	Italy	27
	Latvia	27
	Lithuania	27
	Luxembourg	27
	Malta	27
	Netherlands	27
Poland	27	
Portugal	27	
Romania	27	
Slovak Republic	27	
Slovenia	27	
Spain	27	
Sweden	27	
CPTPP; Pacific Alliance	Chile	15
ASEAN; CPTPP	Singapore	15
CPTPP; Pacific Alliance; CAN	Peru	14
CPTPP	Australia	13
	China	13
USMCA; CAFTA-DR	United States of America	13
	Korea, Republic of	11
	United Kingdom	11
CPTPP; USMCA	Canada	10
CPTPP	New Zealand	10
Pacific Alliance; CAN	Colombia	9
CPTPP	Japan	9
CPTPP; ASEAN	Malaysia	9
EFTA	Iceland	7
EFTA	Switzerland	7
CAFTA-DR	Costa Rica	7
CPTPP; Pacific Alliance; USMCA	Mexico	7
EFTA	Liechtenstein	6
EFTA	Norway	6
CAFTA-DR	El Salvador	6
CAFTA-DR	Honduras	6
	Panama	6
ASEAN	Thailand	6
CPTPP; ASEAN	Viet Nam	6
	Hong Kong	5
CPTPP; ASEAN	Brunei Darussalam	4
CAN	Ecuador	4
	Georgia	4
ASEAN	Indonesia	4
	Türkiye	4

GCC	Bahrain	3
CAFTA-DR; CARIFORUM States	Dominican Republic	3
CAFTA-DR	Guatemala	3
	India	3
CAFTA-DR	Nicaragua	3
ASEAN	Philippines	3
SADC; SACU	South Africa	3
	Ukraine	3
GCC	United Arab Emirates	3
CARIFORUM States	Antigua and Barbuda	2
	Armenia	2
CARIFORUM States	Bahamas	2
CARIFORUM States	Barbados	2
CARIFORUM States	Belize	2
SADC; SACU	Botswana	2
ASEAN	Cambodia	2
	Chinese Taipei	2
CARIFORUM States	Dominica	2
SADC; SACU	Eswatini	2
CARIFORUM States	Grenada	2
CARIFORUM States	Guyana	2
	Israel	2
CARIFORUM States	Jamaica	2
	Jordan	2
GCC	Kingdom of; Kuwait	2
ASEAN	Lao People's Democratic Republic	2
SADC; SACU	Lesotho	2
	Mauritius	2
	Moldova, Republic of	2
	Morocco	2
SADC	Mozambique	2
ASEAN	Myanmar	2
SADC; SACU	Namibia	2
GCC	Qatar	2
CARIFORUM States	Saint Kitts and Nevis	2
CARIFORUM States	Saint Lucia	2
CARIFORUM States	Saint Vincent and the Grenadines	2
GCC	Saudi Arabia, Kingdom of	2
	Seychelles	2
CARIFORUM States	Suriname	2
CARIFORUM States	Trinidad and Tobago	2
	Zimbabwe	2
	Algeria	1
	Anguilla	1
	Aruba, the Netherlands with respect to	1
	Belarus	1
	Bermuda	1
CAN	Bolivia, Plurinational State of	1
	British Indian Ocean Territory	1
	British Overseas Territory of Saint Helena, Ascension and Tristan da Cunha	1
	Cameroon	1
	Cayman Islands	1
	Comoros	1
	Cuba	1
	Egypt	1
	Falkland Islands (Islas Malvinas)	1
	French Polynesia	1
	French Southern Territories	1
	Greenland	1
CARIFORUM States	Haiti	1
	Kazakhstan	1
	Kenya	1
	Kyrgyz Republic	1
	Lebanese Republic	1
	Macao, China	1
	Madagascar	1
	Montserrat	1
	Netherlands Antilles	1
	New Caledonia	1
	Pakistan	1
	Palestine	1
	Pitcairn	1
	Russian Federation	1
	Saint Pierre and Miquelon	1
	Serbia	1

	South Georgia and the South Sandwich Islands	1
	the State of; Oman	1
	Tunisia	1
	Turks and Caicos Islands	1
	Uruguay	1
CAN	Venezuela, Bolivarian Republic of	1
	Virgin Islands, British	1
	Wallis and Futuna Islands	1

Source: Author's calculation based on the information contained in the WTO RTAs Database

Table 50: Breakdown by country or territory by income level of the countries that signed at least one RTA that contains keyword “innovation” or its variations

Countries	Number of RTAs of which it is a party of that mention the keyword "innovation" or variations	Classification by income
Austria	27	High income
Belgium	27	High income
Croatia	27	High income
Cyprus	27	High income
Czech Republic	27	High income
Denmark	27	High income
Estonia	27	High income
Finland	27	High income
France	27	High income
Germany	27	High income
Greece	27	High income
Hungary	27	High income
Ireland	27	High income
Italy	27	High income
Latvia	27	High income
Lithuania	27	High income
Luxembourg	27	High income
Malta	27	High income
Netherlands	27	High income
Poland	27	High income
Portugal	27	High income
Romania	27	High income
Slovak Republic	27	High income
Slovenia	27	High income
Spain	27	High income
Sweden	27	High income
Chile	15	High income
Singapore	15	High income
Australia	13	High income
United States of America	13	High income
Korea, Republic of	11	High income
United Kingdom	11	High income
Canada	10	High income
New Zealand	10	High income
Japan	9	High income
Iceland	7	High income
Switzerland	7	High income
Liechtenstein	6	High income
Norway	6	High income
Panama	6	High income
Hong Kong	5	High income
Brunei Darussalam	4	High income
Bahrain	3	High income
United Arab Emirates	3	High income
Antigua and Barbuda	2	High income
Bahamas	2	High income
Barbados	2	High income
Chinese Taipei	2	High income
Israel	2	High income
Kingdom of;Kuwait	2	High income
Qatar	2	High income
Saint Kitts and Nevis	2	High income
Saudi Arabia, Kingdom of	2	High income
Seychelles	2	High income
Trinidad and Tobago	2	High income
Aruba, the Netherlands with respect to	1	High income

Bermuda	1	High income
Cayman Islands	1	High income
French Polynesia	1	High income
Greenland	1	High income
Macao, China	1	High income
New Caledonia	1	High income
the State of;Oman	1	High income
Turks and Caicos Islands	1	High income
Uruguay	1	High income
Virgin Islands, British	1	High income
Mozambique	2	Low income
Madagascar	1	Low income
El Salvador	6	Lower middle income
Honduras	6	Lower middle income
Viet Nam	6	Lower middle income
Indonesia	4	Lower middle income
India	3	Lower middle income
Nicaragua	3	Lower middle income
Philippines	3	Lower middle income
Ukraine	3	Lower middle income
Cambodia	2	Lower middle income
Eswatini	2	Lower middle income
Lao People's Democratic Republic	2	Lower middle income
Lesotho	2	Lower middle income
Morocco	2	Lower middle income
Myanmar	2	Lower middle income
Zimbabwe	2	Lower middle income
Algeria	1	Lower middle income
Bolivia, Plurinational State of	1	Lower middle income
Cameroon	1	Lower middle income
Comoros	1	Lower middle income
Egypt	1	Lower middle income
Haiti	1	Lower middle income
Kenya	1	Lower middle income
Kyrgyz Republic	1	Lower middle income
Lebanese Republic	1	Lower middle income
Pakistan	1	Lower middle income
Tunisia	1	Lower middle income
Bulgaria	27	Upper middle income
Peru	14	Upper middle income
China	13	Upper middle income
Colombia	9	Upper middle income
Malaysia	9	Upper middle income
Costa Rica	7	Upper middle income
Mexico	7	Upper middle income
Thailand	6	Upper middle income
Ecuador	4	Upper middle income
Georgia	4	Upper middle income
Türkiye	4	Upper middle income
Dominican Republic	3	Upper middle income
Guatemala	3	Upper middle income
South Africa	3	Upper middle income
Armenia	2	Upper middle income
Belize	2	Upper middle income
Botswana	2	Upper middle income
Dominica	2	Upper middle income
Grenada	2	Upper middle income
Guyana	2	Upper middle income
Jamaica	2	Upper middle income
Jordan	2	Upper middle income
Mauritius	2	Upper middle income
Moldova, Republic of	2	Upper middle income
Namibia	2	Upper middle income
Saint Lucia	2	Upper middle income
Saint Vincent and the Grenadines	2	Upper middle income
Suriname	2	Upper middle income
Belarus	1	Upper middle income
Cuba	1	Upper middle income
Kazakhstan	1	Upper middle income
Russian Federation	1	Upper middle income
Serbia	1	Upper middle income
Anguilla	1	Not classified
British Indian Ocean Territory	1	Not classified
British Overseas Territory of Saint Helena, Ascension and Tristan da Cunha	1	Not classified
Falkland Islands (Islas Malvinas)	1	Not classified
French Southern Territories	1	Not classified

Montserrat	1	Not classified
Netherlands Antilles	1	Not classified
Palestine	1	Not classified
Pitcairn	1	Not classified
Saint Pierre and Miquelon	1	Not classified
South Georgia and the South Sandwich Islands	1	Not classified
Venezuela, Bolivarian Republic of	1	Not classified
Wallis and Futuna Islands	1	Not classified

Table 51: Breakdown by country or territory of the number of RTAs of which those countries are parties of that mention the keyword “technology” or its variations

Countries	Number of RTAs of which it is a party of that mention the keyword "technology" or variations
Austria	41
Belgium	41
Croatia	41
Cyprus	41
Czech Republic	41
Denmark	41
Estonia	41
Finland	41
France	41
Germany	41
Greece	41
Hungary	41
Ireland	41
Italy	41
Latvia	41
Lithuania	41
Luxembourg	41
Malta	41
Netherlands	41
Poland	41
Portugal	41
Romania	41
Slovak Republic	41
Slovenia	41
Spain	41
Sweden	41
Bulgaria	41
Chile	30
Iceland	28
Singapore	26
Liechtenstein	25
Norway	25
Switzerland	25
Peru	20
Japan	19
Malaysia	19
Korea, Republic of	17
Australia	16
China	16
United Kingdom	15
Viet Nam	15
Canada	14
Panama	14
India	14
Indonesia	14
Thailand	14
New Zealand	13
Brunei Darussalam	12
United States of America	12
Colombia	12
Honduras	11
Costa Rica	11
Lao People's Democratic Republic	10
Philippines	10
Mexico	10
Türkiye	10
Cambodia	9
El Salvador	9
Myanmar	9
Chinese Taipei	7

Countries	Number of RTAs of which it is a party of that mention the keyword "technology" or variations
Hong Kong	7
Ukraine	7
Georgia	7
Guatemala	7
Egypt	6
Mauritius	6
Israel	5
Seychelles	5
Eswatini	5
Lesotho	5
Nicaragua	5
Papua New Guinea	5
Tunisia	5
Zimbabwe	5
Ecuador	5
Jordan	5
South Africa	5
Bahrain	4
the State of;Oman	4
United Arab Emirates	4
Mozambique	4
Comoros	4
Samoa	4
Solomon Islands	4
Armenia	4
Botswana	4
Fiji	4
Kazakhstan	4
Namibia	4
Serbia	4
Antigua and Barbuda	3
Bahamas	3
Barbados	3
Kingdom of;Kuwait	3
Qatar	3
Saint Kitts and Nevis	3
Saudi Arabia, Kingdom of	3
Trinidad and Tobago	3
Uruguay	3
Madagascar	3
Bolivia, Plurinational State of	3
Kenya	3
Morocco	3
Tanzania	3
Albania	3
Argentina	3
Belize	3
Brazil	3
Dominica	3
Dominican Republic	3
Grenada	3
Guyana	3
Jamaica	3
Paraguay	3
Russian Federation	3
Saint Lucia	3
Saint Vincent and the Grenadines	3
Suriname	3
Burundi	2
Democratic Republic of the Congo	2
Malawi	2
Rwanda	2
Sudan	2
Syrian Arab Republic	2
Uganda	2
Zambia	2
Angola	2
Bangladesh	2
Cameroon	2
Cote d'Ivoire	2
Ghana	2
Haiti	2
Kyrgyz Republic	2
Lebanese Republic	2

Countries	Number of RTAs of which it is a party of that mention the keyword "technology" or variations
Pakistan	2
Sri Lanka	2
Montserrat	2
Palestine	2
Venezuela, Bolivarian Republic of	2
Belarus	2
Bosnia and Herzegovina	2
Cuba	2
Moldova, Republic of	2
Montenegro	2
Aruba, the Netherlands with respect to	1
Bermuda	1
Cayman Islands	1
Faeroe Islands	1
French Polynesia	1
Greenland	1
Macao, China	1
Nauru	1
New Caledonia	1
Turks and Caicos Islands	1
Virgin Islands, British	1
Afghanistan	1
Burkina Faso	1
Eritrea	1
Ethiopia	1
Gambia	1
Guinea	1
Guinea-Bissau	1
Liberia	1
Mali	1
Niger	1
Sierra Leone	1
Togo	1
Yemen	1
Algeria	1
Benin	1
Bhutan	1
Cabo Verde	1
Kiribati	1
Micronesia	1
Mongolia	1
Nepal	1
Nigeria	1
Senegal	1
Uzbekistan	1
Vanuatu	1
Anguilla	1
British Indian Ocean Territory	1
British Overseas Territory of Saint Helena, Ascension and Tristan da Cunha	1
Cook Islands	1
Falkland Islands (Islas Malvinas)	1
French Southern Territories	1
Netherlands Antilles	1
Niue	1
Pitcairn	1
Saint Pierre and Miquelon	1
South Georgia and the South Sandwich Islands	1
Wallis and Futuna Islands	1
Federated States of; Marshall Islands	1
Kingdom of;Iraq	1
Libya	1
Maldives	1
North Macedonia	1
Tonga	1
Tuvalu	1

Table 52: Breakdown by country or territory by income level of the countries that signed at least one RTA that contains keyword “technology” or its variations

Countries	Number of RTAs of which it is a party of that mention the keyword "technology" or variations	Classification by income
Austria	41	High income
Belgium	41	High income
Croatia	41	High income
Cyprus	41	High income
Czech Republic	41	High income
Denmark	41	High income
Estonia	41	High income
Finland	41	High income
France	41	High income
Germany	41	High income
Greece	41	High income
Hungary	41	High income
Ireland	41	High income
Italy	41	High income
Latvia	41	High income
Lithuania	41	High income
Luxembourg	41	High income
Malta	41	High income
Netherlands	41	High income
Poland	41	High income
Portugal	41	High income
Romania	41	High income
Slovak Republic	41	High income
Slovenia	41	High income
Spain	41	High income
Sweden	41	High income
Chile	30	High income
Iceland	28	High income
Singapore	26	High income
Liechtenstein	25	High income
Norway	25	High income
Switzerland	25	High income
Japan	19	High income
Korea, Republic of	17	High income
Australia	16	High income
United Kingdom	15	High income
Canada	14	High income
Panama	14	High income
New Zealand	13	High income
Brunei Darussalam	12	High income
United States of America	12	High income
Chinese Taipei	7	High income
Hong Kong	7	High income
Israel	5	High income
Seychelles	5	High income
Bahrain	4	High income
the State of;Oman	4	High income
United Arab Emirates	4	High income
Antigua and Barbuda	3	High income
Bahamas	3	High income
Barbados	3	High income
Kingdom of;Kuwait	3	High income
Qatar	3	High income
Saint Kitts and Nevis	3	High income
Saudi Arabia, Kingdom of	3	High income
Trinidad and Tobago	3	High income
Uruguay	3	High income
Aruba, the Netherlands with respect to	1	High income
Bermuda	1	High income
Cayman Islands	1	High income
Faeroe Islands	1	High income
French Polynesia	1	High income
Greenland	1	High income
Macao, China	1	High income
Nauru	1	High income
New Caledonia	1	High income
Turks and Caicos Islands	1	High income

Virgin Islands, British	1	High income
Mozambique	4	Low income
Madagascar	3	Low income
Burundi	2	Low income
Democratic Republic of the Congo	2	Low income
Malawi	2	Low income
Rwanda	2	Low income
Sudan	2	Low income
Syrian Arab Republic	2	Low income
Uganda	2	Low income
Zambia	2	Low income
Afghanistan	1	Low income
Burkina Faso	1	Low income
Eritrea	1	Low income
Ethiopia	1	Low income
Gambia	1	Low income
Guinea	1	Low income
Guinea-Bissau	1	Low income
Liberia	1	Low income
Mali	1	Low income
Niger	1	Low income
Sierra Leone	1	Low income
Togo	1	Low income
Yemen	1	Low income
Viet Nam	15	Lower middle income
India	14	Lower middle income
Indonesia	14	Lower middle income
Honduras	11	Lower middle income
Lao People's Democratic Republic	10	Lower middle income
Philippines	10	Lower middle income
Cambodia	9	Lower middle income
El Salvador	9	Lower middle income
Myanmar	9	Lower middle income
Ukraine	7	Lower middle income
Egypt	6	Lower middle income
Eswatini	5	Lower middle income
Lesotho	5	Lower middle income
Nicaragua	5	Lower middle income
Papua New Guinea	5	Lower middle income
Tunisia	5	Lower middle income
Zimbabwe	5	Lower middle income
Comoros	4	Lower middle income
Samoa	4	Lower middle income
Solomon Islands	4	Lower middle income
Bolivia, Plurinational State of	3	Lower middle income
Kenya	3	Lower middle income
Morocco	3	Lower middle income
Tanzania	3	Lower middle income
Angola	2	Lower middle income
Bangladesh	2	Lower middle income
Cameroon	2	Lower middle income
Cote d'Ivoire	2	Lower middle income
Ghana	2	Lower middle income
Haiti	2	Lower middle income
Kyrgyz Republic	2	Lower middle income
Lebanese Republic	2	Lower middle income
Pakistan	2	Lower middle income
Sri Lanka	2	Lower middle income
Algeria	1	Lower middle income
Benin	1	Lower middle income
Bhutan	1	Lower middle income
Cabo Verde	1	Lower middle income
Kiribati	1	Lower middle income
Micronesia	1	Lower middle income
Mongolia	1	Lower middle income
Nepal	1	Lower middle income
Nigeria	1	Lower middle income
Senegal	1	Lower middle income
Uzbekistan	1	Lower middle income
Vanuatu	1	Lower middle income
Montserrat	2	Not classified
Palestine	2	Not classified
Venezuela, Bolivarian Republic of	2	Not classified
Anguilla	1	Not classified
British Indian Ocean Territory	1	Not classified
British Overseas Territory of Saint Helena, Ascension and Tristan da Cunha	1	Not classified

Cook Islands	1	Not classified
Falkland Islands (Islas Malvinas)	1	Not classified
French Southern Territories	1	Not classified
Netherlands Antilles	1	Not classified
Niue	1	Not classified
Pitcairn	1	Not classified
Saint Pierre and Miquelon	1	Not classified
South Georgia and the South Sandwich Islands	1	Not classified
Wallis and Futuna Islands	1	Not classified
Bulgaria	41	Upper middle income
Peru	20	Upper middle income
Malaysia	19	Upper middle income
China	16	Upper middle income
Thailand	14	Upper middle income
Colombia	12	Upper middle income
Costa Rica	11	Upper middle income
Mexico	10	Upper middle income
Türkiye	10	Upper middle income
Georgia	7	Upper middle income
Guatemala	7	Upper middle income
Mauritius	6	Upper middle income
Ecuador	5	Upper middle income
Jordan	5	Upper middle income
South Africa	5	Upper middle income
Armenia	4	Upper middle income
Botswana	4	Upper middle income
Fiji	4	Upper middle income
Kazakhstan	4	Upper middle income
Namibia	4	Upper middle income
Serbia	4	Upper middle income
Albania	3	Upper middle income
Argentina	3	Upper middle income
Belize	3	Upper middle income
Brazil	3	Upper middle income
Dominica	3	Upper middle income
Dominican Republic	3	Upper middle income
Grenada	3	Upper middle income
Guyana	3	Upper middle income
Jamaica	3	Upper middle income
Paraguay	3	Upper middle income
Russian Federation	3	Upper middle income
Saint Lucia	3	Upper middle income
Saint Vincent and the Grenadines	3	Upper middle income
Suriname	3	Upper middle income
Belarus	2	Upper middle income
Bosnia and Herzegovina	2	Upper middle income
Cuba	2	Upper middle income
Moldova, Republic of	2	Upper middle income
Montenegro	2	Upper middle income
Federated States of; Marshall Islands	1	Upper middle income
Kingdom of;Iraq	1	Upper middle income
Libya	1	Upper middle income
Maldives	1	Upper middle income
North Macedonia	1	Upper middle income
Tonga	1	Upper middle income
Tuvalu	1	Upper middle income

5.2 Annex B: Transcription of the selected provisions per subject

5.2.1 In RTAs that mention the keyword “innovation” or its variations

5.2.1.1 In the Preamble and/or Objectives of the RTAs

The selected excerpts of the 52 RTAs that mention the term “innovation” or its variations are transcribed below for ease of reference, organized in chronological order by date of entry into force.

1. EU Overseas Countries and Territories (OCT) (in force since 01 Jan. 1971):

“Whereas:

(...) (28) Intellectual property rights are a crucial component for stimulating [innovation](#) and are a tool to promote economic and social development. They benefit countries by allowing them to protect intellectual creations and assets. Their protection and enforcement helps to facilitate trade, growth and foreign investment as well as to combat the health and safety risks of counterfeit products. OCTs can benefit from a policy on intellectual property rights, in particular in the context of the preservation of biodiversity and the development of technology.

(...)

37) By virtue of this Decision, the Council should be able to produce an [innovative](#) response to all the factors mentioned above, which is both consistent and tailored to the variety of situations, (...)”

2. Mexico – Chile RTA (in force since 01 Aug. 1999):

“(...) decididos a:

(...) ALENTAR la [innovación](#) y la creatividad mediante la protección de los derechos de propiedad intelectual;”

3. New Zealand – Singapore RTA (in force since 01 Jan. 2001):

“(...) Conscious that open, transparent and competitive markets are the key drivers of economic efficiency, [innovation](#), wealth creation and consumer welfare;

(...) Recognising the need for good corporate governance and a predictable, transparent and consistent business environment, so that businesses can conduct transactions freely, use resources efficiently and effectively and obtain rewards for [innovation](#);”

4. United States – Jordan RTA (in force since 17 Dec. 2001):

“(...) Desiring to foster creativity and [innovation](#) and promote trade in goods and services that are the subject of intellectual property rights;”

5. Japan – Singapore RTA (in force since 30 Nov. 2002):

“(...) Acknowledging that encouraging [innovation](#) and competition and improving their attractiveness to capital and human resources can enhance their ability to respond to such new challenges and opportunities; (...)”

6. United States – Chile RTA (in force since 01 Jan. 2004):

“(…) resolved to:
(…) FOSTER creativity and [innovation](#), and promote trade in goods and services that are the subject of intellectual property rights;”

7. Mexico – Uruguay RTA (in force since 15 Jul. 2004):

“Los gobiernos de los Estados Unidos Mexicanos y de la República Oriental del Uruguay, decididos a:
(…)
ALENTAR la [innovación](#) y la creatividad y fomentar el comercio de bienes y servicios que estén protegidos por derechos de propiedad intelectual;”

8. EFTA¹⁸⁵ – Chile RTA (in force since 01 Dec. 2004):

“(…) resolved to:
(…) FOSTER creativity and [innovation](#) by protecting intellectual property rights;”

9. Australia – Thailand RTA (in force since 01 Jan. 2005):

“(…) Conscious that open, transparent and competitive markets are the key drivers of economic efficiency, [innovation](#), wealth creation and consumer welfare;”

10. United States – Australia RTA (in force since 01 Jan. 2005):

“(…) FOSTER creativity and [innovation](#) and promote stronger links between dynamic sectors of their economies;”

11. New Zealand – Thailand RTA (in force since 01 Jul. 2005):

“(…) Conscious that open, transparent and competitive markets are the key drivers of economic efficiency, [innovation](#), wealth creation and consumer welfare;”

12. United States – Morocco RTA (in force since 01 Jan. 2006):

“(…) Seeking to foster creativity and [innovation](#) and to promote trade in goods and services that are the subject of intellectual property rights;”

13. United States – Dominican Republic - Central America FTA (CAFTA-DR) (in force since 01 Mar. 2006):

“(…) resolved to:
(…) FOSTER creativity and [innovation](#), and promote trade in goods and services that are the subject of intellectual property rights;”

14. Trans-Pacific Strategic Economic Partnership¹⁸⁶ (in force since 28 May 2006):

“(…) resolve to:
(…) FOSTER creativity and [innovation](#), and promote the protection intellectual property rights to encourage trade in goods and services among the Parties;”

¹⁸⁵ According to the WTO RTAs Database, EFTA is comprised by: Iceland; Liechtenstein; Norway; Switzerland.

¹⁸⁶ According to the WTO RTA Database, the Parties to this Agreement are: Brunei Darussalam; Chile; New Zealand; Singapore.

15. New Zealand – China RTA (in force since 01 Oct. 2008):

“(…) Mindful that fostering [innovation](#) and the promotion and protection of intellectual property rights will encourage further trade, investment and cooperation between the Parties;”

16. Japan – Philippines RTA (in force since 11 Dec. 2008):

“(…) Acknowledging that encouraging [innovation](#) and competition and improving their attractiveness to capital and human resources can enhance their ability to respond to such new challenges and opportunities; (…)”

17. United States – Peru RTA (01 Feb. 2009):

“The Government of the United States of America and the Government of the Republic of Peru, resolved to:
(…) FOSTER creativity and [innovation](#) and promote trade in the [innovative](#) sectors of our economies;”

18. Australia – Chile RTA (in force since 09 Mar. 2009):

“(…) resolved to:
(…) FOSTER creativity and [innovation](#) and promote stronger links between dynamic sectors of their economies;”

19. Chile – Colombia RTA (in force since 08 May 2009):

“Capítulo 1 Disposiciones Iniciales
(…) Artículo 1.2: Objetivos
1. Los objetivos de este Acuerdo son los siguientes:
(…) (g) promover entre las Partes la cooperación destinada a obtener el más amplio provecho de las oportunidades de desarrollo y crecimiento que proporciona este Acuerdo, con especial énfasis en la [innovación](#) y la competitividad;”

20. New Zealand – Malaysia RTA (in force since 01 Aug. 2010):

“Article 1.2 Objectives
1. The objectives of this Agreement are:
(…) (d) to improve the efficiency and competitiveness of their goods and services sectors by promoting conditions for competition cooperation, for [innovation](#) and for mutually beneficial business collaboration; and (…)”

21. New Zealand – Hong Kong RTA (in force since 01 Jan. 2011):

“(…) Believing that open, transparent and competitive markets are the key drivers of economic efficiency, [innovation](#), wealth creation and consumer welfare;
(…) Mindful that fostering [innovation](#) and the promotion and protection of intellectual property rights will encourage further trade, investment and cooperation between the Parties;
(…) Recognising the need for good corporate governance and a predictable, transparent and consistent business environment, so that businesses can conduct transactions freely, use resources efficiently and obtain rewards for [innovation](#);”

22. EFTA – Colombia RTA (in force since 01 Jul. 2011):

“(…) RESOLVED to foster creativity and [innovation](#) by protecting intellectual property rights while maintaining a balance between the rights of the holders and the

interests of the public in general, particularly in education, research, public health and access to information;”

23. EFTA – Peru RTA (in force since 01 Jul. 2011):

“(…) RESOLVED to foster creativity and [innovation](#) by protecting intellectual property rights while maintaining a balance between the rights of the holders and the interests of the public in general, particularly in education, research, public health and access to information;”

24. Costa Rica – China RTA (in force since 01 Aug. 2011):

“Chapter 1 Initial Provisions
(…) Article 2: Objectives
1. The objectives of this Agreement are to:
(…) (e) ensure an adequate and effective protection of intellectual property rights in the territories of the Parties, taking into consideration the economic situation and the social or cultural need of each Party; as well as to promote technological [innovation](#) and the transfer and dissemination of technology between the Parties;”

25. Mexico – Peru RTA (in force since 01 Feb. 2012):

“(…) decididos a:
(…) PROMOVER el comercio en los sectores [innovadores](#) de nuestras economías;
y”

26. Panama – Peru RTA (in force since 01 May 2012):

“PREÁMBULO
El Gobierno de la República del Perú, por un lado, y el Gobierno de la República de Panamá, por otro lado, decididos a:
(…) ESTIMULAR la creatividad e [innovación](#) y promover el comercio en los sectores innovadores de sus economías;”

27. United States – Colombia RTA (in force since 15 May 2012):

“The Government of the United States of America and the Government of the Republic of Colombia, resolved to:
(…) FOSTER creativity and [innovation](#) and promote trade in the [innovative](#) sectors of our economies; (…)”

28. Mexico – Central America RTA (in force since 01 Sep. 2012):

“(…) DECIDIDOS A:
(…) ESTIMULAR la creatividad y la [innovación](#), promoviendo el comercio de mercancías y servicios que sean objeto de protección de derechos de propiedad intelectual;”

29. United States – Panama RTA (in force since 21 Dec. 2012):

“PREAMBLE
The Government of the United States of America and the Government of the Republic of Panama, resolved to:
(…) FOSTER creativity and [innovation](#), and promote trade in goods and services that are the subject of intellectual property rights;”

30. Costa Rica – Peru RTA (in force since 01 Jun. 2013):

“(…) decididos a:
ESTIMULAR la creatividad e [innovación](#) y promover el comercio en los sectores [innovadores](#) de sus economías;”

31. Costa Rica – Singapore RTA (in force since 01 Jul. 2013):

“Resolving to create an expanded and secure market for the goods and services produced in their territories and conscious that open, transparent and competitive markets are the key drivers of economic efficiency, [innovation](#), wealth creation and consumer welfare;

(…)

Desiring to foster creativity and [innovation](#), and promote trade in goods and services that are the subject of intellectual property rights;”

32. EU – Central America¹⁸⁷ (in force since 01 Aug. 2013):

“CONVINCED that this Agreement will create a climate conducive to growth in sustainable economic relations between them, more particularly in the trade and investment sectors which are essential to the realisation of the economic and social development and technological [innovation](#) and modernisation;”

33. New Zealand – Chinese Taipei RTA (in force since 01 Dec. 2013):

“(…) BELIEVING that open, transparent and competitive markets are the key drivers of economic efficiency, [innovation](#), wealth creation, employment and consumer welfare;

(…)

MINDFUL that fostering [innovation](#) and the promotion and protection of intellectual property rights will encourage further trade, investment and cooperation between the Parties;”

34. United States – Singapore RTA (in force since 01 Jan. 2014):

“(…) Recognizing that open and competitive markets are the key drivers of economic efficiency, [innovation](#) and wealth creation;”

35. EFTA – Gulf Cooperation Council (GCC)¹⁸⁸ RTA (in force since 01 Jul. 2014):

“RESOLVED to foster creativity and [innovation](#) by protecting intellectual property rights;”

36. EU – Ukraine RTA (in force since 23 Aug. 2014):

“Whereas:

(…) (2) Taking account of the close historical relationship and progressively closer links between the Parties as well as their desire to strengthen and widen relations in an ambitious and [innovative](#) way, the negotiations on the Association Agreement between the European Union and the European Atomic Energy Community and their Member States, of the one part, and Ukraine, of the other part (hereinafter referred to as ‘the Agreement’), were successfully concluded by the initialling of the Agreement in 2012.”

37. EU – Moldova (in force since 01 Sep. 2014):

“Whereas:

¹⁸⁷ According to the WTO RTAs Database, the signatories parties from Central America are: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

¹⁸⁸ According to the WTO RTAs Database, GCC is comprised by: Bahrain, Kingdom of; Kuwait, the State of; Oman; Qatar; Saudi Arabia, Kingdom of; United Arab Emirates.

(...) (2) Taking into account the close historical relationship and progressively closer links between the Parties, as well as their desire to strengthen and widen relations in an ambitious and [innovative](#) way, the negotiations on the Association Agreement between the European Union and the European Atomic Energy Community and their Member States, of the one part, and the Republic of Moldova, of the other part ('the Agreement'), were successfully finalised by the initialling of the Agreement on 29 November 2013."

38. Australia – Korea RTA (in force since 12 Dec. 2014):

"(...) Desiring to strengthen a mutually beneficial cooperative framework to foster creativity and [innovation](#), and promote stronger linkage in and between dynamic sectors of their economies;"

39. Australia – Japan RTA (in force since 15 Jan. 2015):

"(...) DESIRING to foster creativity, [innovation](#) and links between dynamic sectors of their economies;"

40. Mexico – Panama RTA (in force since 01 Jul. 2015):

"(...) DECIDIDOS A:
(...) ESTIMULAR la creatividad y la [innovación](#), promoviendo el comercio de mercancías y servicios que sean objeto de protección de derechos de propiedad intelectual;"

41. New Zealand – Korea RTA (in force since 20 Dec. 2015):

"PREAMBLE
The Government of New Zealand (hereinafter referred to as "New Zealand") and the Government of the Republic of Korea (hereinafter referred to as "Korea") (hereinafter collectively referred to as "the Parties" and individually as "a Party"):
(...) Desiring to strengthen a mutually beneficial co-operative framework to foster creativity and [innovation](#), protect intellectual property rights, and promote stronger linkage in and between dynamic sectors of their economies; (...)"

42. Pacific Alliance – Additional Protocol (in force since 01 May 2016):

"PREÁMBULO
La República de Colombia, la República de Chile, los Estados Unidos Mexicanos y la República del Perú, en lo sucesivo denominadas "las Partes",
En desarrollo de los objetivos y principios establecidos en el Acuerdo Marco de la Alianza del Pacífico, suscrito en Paranal, Antofagasta, República de Chile, el 6 de junio de 2012, con el ánimo de:
(...) ESTIMULAR el comercio en los sectores [innovadores](#) de sus economías;"

43. Costa Rica – Colombia RTA (in force since 01 Aug. 2016):

"(...) decididos a:
(...) ESTIMULAR la creatividad e [innovación](#) y promover el comercio en los sectores [innovadores](#) de sus economías; (...)"

44. Peru – Honduras RTA (in force since 01 Jan. 2017):

"PREÁMBULO
El Gobierno de la República del Perú, por un lado, y el Gobierno de la República de Honduras, por otro lado, decididos a:
(...) ESTIMULAR la creatividad e [innovación](#) y promover el comercio en los sectores [innovadores](#) de sus economías; (...)"

45. EU - Canada RTA (in force since 21 Sep. 2017):

“RECOGNISING the strong link between [innovation](#) and trade, and the importance of [innovation](#) to future economic growth, and affirming their commitment to encourage the expansion of cooperation in the area of [innovation](#), as well as the related areas of research and development and science and technology, and to promote the involvement of relevant public and private sector entities; (...)”

46. El Salvador – Ecuador RTA (in force since 16 Nov. 2017):

“(...) considerando:
(...) Que es conveniente la creación de instrumentos que faciliten la transferencia de tecnologías e [innovación](#), así como el intercambio de conocimiento, experiencias y asistencia técnica para la generación de capacidades productivas que contribuyan al mejoramiento de la calidad de vida de sus pueblos;”

47. Australia – Hong Kong RTA (in force since 17 Jan. 2020):

“(...) RECOGNIZE that small and medium-sized enterprises (SMEs), including micro-sized enterprises, contribute significantly to economic growth, employment, community development, youth engagement and [innovation](#), and seek to support their growth and development by enhancing their ability to participate in and benefit from the opportunities created by this Agreement;”

48. United States-Mexico-Canada Agreement (USMCA/CUSMA/T-MEC) (in force since 01 Jul. 2020):

“PREAMBLE
(...) RECOGNIZE that small and medium-sized enterprises (SMEs), including micro-sized enterprises, contribute significantly to economic growth, employment, community development, youth engagement and [innovation](#), and seek to support their growth and development by enhancing their ability to participate in and benefit from the opportunities created by this Agreement;”

49. Australia – Indonesia RTA (in force since 05 Jul. 2020):

“(...) RECOGNISING that open, transparent and competitive markets are key drivers of economic growth, poverty reduction, job creation, [innovation](#), expansion of productive capacity and human development;”

50. United Kingdom – Georgia RTA (in force since 01 Jan. 2021):

“CONSIDERING the strong links and common values of the Parties, and recognising the common desire of the Parties to further develop, strengthen and extend their relations in an ambitious and [innovative](#) way;”

51. EU - United Kingdom RTA (entered into force on 29 Jan. 2021):

“(...) 22. CONSIDERING that cooperation in areas of shared interest, such as science, research and [innovation](#), nuclear research and space, in the form of the participation of the United Kingdom in the corresponding Union programmes under fair and appropriate conditions will benefit both Parties;”

52. ASEAN¹⁸⁹ – Hong Kong RTA (in force since 10 Feb. 2021):

¹⁸⁹ According to the WTO RTAs Database, ASEAN is comprised in this case by: Brunei Darussalam; Myanmar; Cambodia; Indonesia; Lao People's Democratic Republic; Malaysia; Philippines; Singapore; Viet Nam; Thailand.

“Article 1

Objectives

1. The Parties, in pursuit of their mutual benefits, agree to undertake economic and technical co-operation under this Chapter in order to enable the Parties to facilitate, implement, expand, and enhance the benefits of this Agreement, taking into account the different levels of economic development of the Parties, especially the least-developed ASEAN Member States.

2. The economic and technical co-operation under this Chapter shall aim, inter alia, at:

(a) supporting the effective and efficient implementation and utilisation of this Agreement;

(b) creating new opportunities for trade and investment and promoting competitiveness and **innovation** through the involvement, where appropriate, of the private sector including the small and medium enterprises (SMEs) by, inter alia, facilitating the integration of SMEs into Global Value Chains, and encouraging SMEs to organise or participate in trade promotion events;

(c) promoting and deepening the level of economic and technical co-operation among the Parties by implementing the Work Programme under Article 4 (Implementation of Economic and Technical Co-operation); and

(d) enhancing the capabilities of the Parties through capacity building activities to enable the Parties to take full benefit of this Agreement.”

5.2.1.2 In IP Provisions

The selected excerpts of the 60 RTAs that mention the term “innovation” or its variations in IP provisions are transcribed below for ease of reference.

1. Canada – Israel RTA (in force since 01 Jan. 1997):

“CHAPTER TEN

INTELLECTUAL PROPERTY

(...) Article 10.6: Other Areas of Cooperation

Recognising the growing importance of intellectual property rights in promoting **innovation**, economic, social and cultural development, as well as economic competitiveness in a knowledge-based and digital economy, the Parties agree to cooperate in the field of intellectual property in areas of mutual interest, including exploring ways to expedite the examination of patent applications and information sharing.

(...)

ANNEX 10.5

GUIDELINES FOR THE ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS

(...) Information Sharing

5. The Parties’ respective authorities may cooperate, as appropriate, to better identify and target the inspection of shipments suspected of containing counterfeit trademark or pirated copyright goods and, in doing so, endeavour to:

(a) share information on **innovative** approaches that may be developed to provide greater analytical targeting of shipments that could contain counterfeit trademark or pirated copyright goods; and

(b) share information and intelligence regarding shipments of suspected counterfeit trademark or pirated copyright goods in appropriate cases.”

2. Gulf Cooperation Council (GCC)¹⁹⁰ (in force since 01 Jan. 2003):

“Chapter VI

Scientific and Technical Research

(...)

Article Twenty: Intellectual Property

Member States shall develop programs encouraging talented individuals and supporting [innovation](#) and invention; cooperate in the field of intellectual property and develop regulations and procedures ensuring protection of intellectual property rights; and coordinate their relevant policies towards other countries, regional blocs and international and regional organizations.”

3. United States – Chile RTA (in force since 01 Jan. 2004):

“Chapter Seventeen Intellectual Property Rights

The Parties,

(...) Emphasizing that the protection and enforcement of intellectual property rights is a fundamental principle of this Chapter that helps promote technological [innovation](#) as well as the transfer and dissemination of technology to the mutual advantage of technology producers and users, and that encourages the development of social and economic well-being;

Convinced of the importance of efforts to encourage private and public investment for research, development, and [innovation](#);

Recognizing that the business community of each Party should be encouraged to participate in programs and initiatives for research, development, [innovation](#), and the transfer of technology implemented by the other Party;

Recognizing the need to achieve a balance between the rights of right holders and the legitimate interests of users and the community with regard to protected works;

Agree as follows: (...)

Article 17.1: General Provisions

(...) 14. For the purposes of strengthening the development and protection of intellectual property, and implementing the obligations of this Chapter, the Parties will cooperate, on mutually agreed terms and subject to the availability of appropriated funds, by means of:

(a) educational and dissemination projects on the use of intellectual property as a research and [innovation](#) tool, as well as on the enforcement of intellectual property; (...).”

4. New Zealand – Thailand RTA (in force since 01 Jul. 2005):

“ARTICLE 12.3

Intellectual Property Principles

1. The Parties recognise the importance of intellectual property rights in promoting economic and social development, particularly in the new digital economy; technological [innovation](#); and trade.

2. The Parties are committed to the maintenance of intellectual property rights regimes that promote [innovation](#) through protecting the rights of intellectual property right holders and the legitimate interests of the community in accordance with the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).”

5. Dominican Republic - Central America¹⁹¹ - United States FTA (CAFTA-DR) (in force since 01 Mar. 2006):

¹⁹⁰ According to the WTO RTA Database, the GCC is comprised of: Bahrain, Kingdom of; Kuwait, the State of; Oman; Qatar; Saudi Arabia, Kingdom of; United Arab Emirates.

¹⁹¹ According to the WTO RTAs Database, “Central America” in this specific case refers to: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua.

“Chapter Fifteen Intellectual Property Rights

Article 15.1: General Provisions

(...)

16. Recognizing the Parties’ commitment to trade capacity building as reflected in the establishment of the Committee on Trade Capacity Building under Article 19.4 (Committee on Trade Capacity Building) and the importance of trade capacity building activities, the Parties shall cooperate through that Committee in the following initial capacity-building priority activities, on mutually agreed terms and conditions, and subject to the availability of appropriated funds:

(a) educational and dissemination projects on the use of intellectual property as a research and [innovation](#) tool, as well as on the enforcement of intellectual property rights; (...).”

6. Trans-Pacific Strategic Economic Partnership¹⁹² (in force since 28 May 2006):

“CHAPTER 10 INTELLECTUAL PROPERTY

(...) Article 10.2: Intellectual Property Principles

1. The Parties recognise the importance of intellectual property in promoting economic and social development, particularly in the new digital economy, technological [innovation](#) and trade.”

7. Chile – China RTA (Goods: in force since 01 Oct. 2006; Services: in force since 01 Aug. 2010):

“Article 111 - Intellectual Property Rights

1. The aim of cooperation on intellectual property rights will be:

(...) (b) to promote economic and social development, particularly in the new digital economy, technological [innovation](#) as well as the transfer and dissemination of technology to the mutual advantage of technology producers and users, and to encourage the development of social economic well-being, and trade;

(...)

2. The Parties will cooperate, on mutually agreed terms and subject to the availability of appropriated funds, by means of:

(a) educational and dissemination projects on the use of intellectual property as a research and [innovation](#) tool;”

8. Japan – Thailand RTA (in force since 01 Nov. 2007):

“Chapter 10

Intellectual Property

(...) Article 129

Objectives

1. The protection and enforcement of intellectual property rights should contribute to the promotion of technological [innovation](#) and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.”

9. Pakistan – Malaysia RTA (in force since 01 Jan. 2008):

“CHAPTER 10 INTELLECTUAL PROPERTY

Article 104 Principles

1. The Parties recognise the importance of intellectual property in promoting economic and social development, particularly in the new digital economy, technological [innovation](#) and trade.

¹⁹² According to the WTO RTAs Database, this agreement is comprised by the following parties: Brunei Darussalam; Chile; New Zealand; Singapore.

2. The Parties recognise the need to achieve a balance between the rights of right holders and the legitimate interests of users and the community with regard to protected subject matter.”

10. China – New Zealand RTA (01 Oct. 2008):

“CHAPTER 12 INTELLECTUAL PROPERTY

(...) Article 160 Intellectual Property Principles

1. The Parties recognise the importance of intellectual property rights in promoting economic and social development, particularly in the new digital economy, technological [innovation](#) and trade. (...)

Article 164 Cooperation and Capacity Building

(...) 2. Each Party shall:

(...) (c) on mutually acceptable terms and subject to available funds, cooperate on:

- (i) appropriate initiatives to promote awareness of intellectual property rights and systems;
- (ii) educational and information dissemination projects on the use of intellectual property as a research and [innovation](#) tool; and
- (iii) training and specialization courses for public servants on intellectual property rights.”

11. EU – CARIFORUM States¹⁹³ RTA (in force since 29 Dec. 2008):

“CHAPTER 2

[Innovation](#) and intellectual property

Article 131

Context

1. The Parties agree that fostering [innovation](#) and creativity improves competitiveness and is a crucial element in their economic partnership, in achieving sustainable development, promoting trade between them and ensuring the gradual integration of CARIFORUM States into the world economy.

2. They also recognise that the protection and enforcement of intellectual property plays a key role in fostering creativity, [innovation](#) and competitiveness, and are determined to ensure increasing levels of protection appropriate to their levels of development.

Article 132

Objectives

The objectives of this Chapter are to:

- (a) promote the process of [innovation](#), including eco-[innovation](#), of enterprises located in the Parties;
- (b) foster competitiveness of enterprises and in particular micro-, small and medium-sized enterprises of the Parties;
- (c) facilitate the production and commercialisation of [innovative](#) and creative products between the Parties;
- (d) achieve an adequate and effective level of protection and enforcement of intellectual property rights;
- (e) contribute to the promotion of technological [innovation](#) and to the transfer and dissemination of technology and know-how;
- (f) encourage, develop and facilitate cooperative research and development activities in science and technology between the Parties, as well as to develop lasting relations between the Parties' scientific communities;
- (g) encourage, develop and facilitate cooperative production and development activities in the creative industries between the Parties, as well as to develop lasting relationships between the Parties' creative communities;

¹⁹³ According to the WTO RTAs Database, the CARIFORUM States at that point of time were: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

(h) promote and strengthen regional cooperative activities involving the outermost regions of the European Community, so as to allow these regions and the CARIFORUM States to mutually benefit from their proximity and neighbourhood situation by developing an innovative and competitive regional area. (...)

Section 1

Innovation

Article 133

Regional integration

The Parties recognise that measures and policies to be taken at the regional level are necessary to fully attain the objectives of this Section. The CARIFORUM States agree to increase action at the regional level with a view to providing enterprises with a regulatory and policy framework conducive to fostering competitiveness through innovation and creativity.

Article 135

Cooperation in the area of competitiveness and innovation

1. The Parties recognise that the promotion of creativity and innovation is essential for the development of entrepreneurship and competitiveness and the achievement of the overall objectives of this Agreement.

2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:

(a) promotion of innovation, diversification, modernisation, development and product and process quality in businesses;

(...)

(f) promotion of partnerships for research and development activities in the CARIFORUM States in order to improve their innovation systems; and

(g) intensification of activities to promote linkages, innovation and technology transfer between CARIFORUM and European Community partners.

Article 136

Cooperation on science and technology

1. The Parties will foster the participation of their research and technological development bodies in the cooperation activities in compliance with their internal rules. Cooperative activities may take the following forms:

(...) (j) participation in the Knowledge and Innovation Communities of the European Institute of Innovation and Technology.

Article 137

Cooperation on information society and information and communication technologies

1. The Parties recognise that information and communications technologies (ICT) are key sectors in a modern society and are of vital importance to foster creativity, innovation and competitiveness, as well as the smooth transition to the information society.

Article 138

Cooperation on eco-innovation and renewable energy

1. With a view to achieving sustainable development and in order to help maximise any positive and prevent any negative environmental impacts resulting from this Agreement, the Parties recognise the importance of fostering forms of innovation that benefit the environment in all sectors of their economy. Such forms of eco-innovation include energy efficiency and renewable sources of energy.

2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (c) promotion of eco-innovation networks and clusters, including through public-private partnerships; (...)

Section 2

Intellectual property

(...) Article 150

Genetic resources, traditional knowledge and folklore

(...) 1. Subject to their domestic legislation the EC Party and the Signatory CARIFORUM States respect, preserve and maintain knowledge, [innovations](#) and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the involvement and approval of the holders of such knowledge, [innovations](#) and practices and encourage the equitable sharing of the benefits arising from the utilisation of such knowledge, [innovations](#) and practices.

12. United States – Peru RTA (in force since 01 Feb. 2009):

“Chapter Sixteen Intellectual Property Rights

Article 16.12: Promotion of [Innovation](#) and Technological Development

1. The Parties recognize the importance of promoting technological [innovation](#), disseminating technological information, and building technological capacity, including, as appropriate, through collaborative scientific research projects between or among the Parties. Accordingly, the Parties will seek and encourage opportunities for science and technology cooperation and identify areas for such cooperation and, as appropriate, engage in collaborative scientific research projects.

2. The Parties shall give priority to collaborations that advance common goals in science, technology, and [innovation](#) and support partnerships between public and private research institutions and industry. Any such collaborative activities or transfer of technology shall be based on mutually agreed terms.”

13. ASEAN¹⁹⁴ – Australia – New Zealand RTA (in force since 01 Jan. 2010):

“CHAPTER 13 INTELLECTUAL PROPERTY

Article 9 Co-operation

(...) 2. At the request of a Party, any other Party may, to the extent possible and as appropriate, render assistance to the requesting Party in order to enhance the requesting Party’s national framework for the acquisition, protection, enforcement, utilisation and creation of intellectual property, with a view to developing intellectual property systems that foster domestic [innovation](#) in the requesting Party.”

14. Peru – China RTA (in force since 01 Mar. 2010):

“CHAPTER 11 INTELLECTUAL PROPERTY RIGHTS

Article 144: General Provisions

1. The Parties recognize the importance of intellectual property rights in promoting economic and social development, particularly in the globalization of technological [innovation](#) and trade, as well as the transfer and dissemination of technology to the mutual advantage of technology producers and users, and agree to encourage the development of social economic well-being, and trade.”

15. Türkiye – Chile RTA (in force since 01 Mar. 2011):

“CHAPTER IV INTELLECTUAL PROPERTY

Article 35 Intellectual Property

1. The Parties recognize the importance of intellectual property in promoting economic and social development, technological [innovation](#), as well as in promoting the transfer and dissemination of technology to the mutual advantage of technology producers and users, particularly in the new digital economy.”

16. New Zealand – Malaysia RTA (in force since 01 Aug. 2010):

¹⁹⁴ According to the WTO RTAs Database, the ASEAN in this case was comprised by: Brunei Darussalam; Myanmar; Cambodia; Indonesia; Lao People’s Democratic Republic; Malaysia; Philippines; Singapore; Viet Nam; Thailand.

“CHAPTER ELEVEN INTELLECTUAL PROPERTY

(...) Article 11.2 Intellectual Property Principles

1. The Parties recognise the importance of intellectual property rights in promoting economic and social development, particularly in the new digital economy, technological [innovation](#) and trade.”

17. Hong Kong – New Zealand RTA (in force since 01 Jan. 2011):

“CHAPTER IV INTELLECTUAL PROPERTY

Article 35 Intellectual Property

1. The Parties recognize the importance of intellectual property in promoting economic and social development, technological [innovation](#), as well as in promoting the transfer and dissemination of technology to the mutual advantage of technology producers and users, particularly in the new digital economy.”

18. Colombia – EFTA¹⁹⁵ RTA (in force since 01 Jul. 2011):

“CHAPTER 6

PROTECTION OF INTELLECTUAL PROPERTY

(...)

ARTICLE 6.2

Basic Principles

1. In accordance with Article 7 of the TRIPS Agreement, the Parties recognise that the protection and enforcement of intellectual property rights should contribute to the promotion of technological [innovation](#) and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

ARTICLE 6.5

Measures Related to Biodiversity

(...) 2. The Parties recognise the importance and the value of their biological diversity and of the associated traditional knowledge, [innovations](#) and practices of indigenous and local communities. Each Party shall determine the access conditions to its genetic resources in accordance with the principles and provisions contained in applicable national and international law.

3. The Parties recognise past, present and future contributions of indigenous and local communities and their knowledge, [innovations](#) and practices to the conservation and sustainable use of biological and genetic resources and in general the contribution of the traditional knowledge of their indigenous and local communities to the culture and economic and social development of nations.

4. The Parties shall consider collaborating in cases regarding non compliance with applicable legal provisions on access to genetic resources and traditional knowledge, [innovations](#) and practices.

ARTICLE 6.18

Promotion of Research, Technological Development and [Innovation](#)

1. The Parties acknowledge the importance of promoting research, technological development and [innovation](#), of disseminating technological information, and of building and strengthening their technological capacities, and they will seek to cooperate in such areas, taking into account their resources.”

19. EU – Korea FTA (in force since 01 Jul. 2011):

“CHAPTER TEN

INTELLECTUAL PROPERTY

¹⁹⁵ According to the WTO RTAs Database, EFTA in this case comprises: Iceland; Liechtenstein; Norway; Switzerland.

SECTION A
General provisions
Article 10.1

Objectives

The objectives of this Chapter are to:

- (a) facilitate the production and commercialisation of [innovative](#) and creative products in the Parties; and
- (b) achieve an adequate and effective level of protection and enforcement of intellectual property rights.

Article 10.40

Genetic resources, traditional knowledge and folklore

1. Subject to their legislation, the Parties shall respect, preserve and maintain knowledge, [innovations](#) and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the involvement and approval of the holders of such knowledge, [innovations](#) and practices and encourage the equitable sharing of the benefits arising from the utilisation of such knowledge, [innovations](#) and practices.”

20. Peru – EFTA¹⁹⁶ RTA (in force since 01 Jul. 2011):

“CHAPTER 6
PROTECTION OF INTELLECTUAL PROPERTY
(...) ARTICLE 6.2

Basic Principles

1. In accordance with Article 7 of the TRIPS Agreement, the Parties recognise that the protection and enforcement of intellectual property rights should contribute to the promotion of technological [innovation](#) and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

ARTICLE 6.5

Measures Related to Biodiversity

(...) 2. The Parties recognise the importance and the value of their biological diversity and of the associated traditional knowledge, [innovations](#) and practices of indigenous and local communities. Each Party shall determine the access conditions to its genetic resources in accordance with the principles and provisions contained in applicable national and international law.

3. The Parties recognise past, present and future contributions of indigenous and local communities and their knowledge, [innovations](#) and practices to the conservation and sustainable use of biological and genetic resources and in general the contribution of the traditional knowledge of their indigenous and local communities to the culture and economic and social development of nations.

4. The Parties shall consider collaborating in cases regarding non compliance with the applicable legal provisions on access to genetic resources and traditional knowledge, [innovations](#) and practices.

ARTICLE 6.18

Promotion of Research, Technological Development and [Innovation](#)

1. The Parties acknowledge the importance of promoting research, technological development and [innovation](#), of disseminating technological information, and of building and strengthening their technological capacities, and they will seek to co-operate in such areas, taking into account their resources.

2. Co-operation in those fields, between Peru and Switzerland, may be based, in particular, on the respective Letters of Intent between the State Secretariat for

¹⁹⁶ According to the WTO RTAs Database, EFTA in this case comprises: Iceland; Liechtenstein; Norway; Switzerland.

Education and Research of the Federal Department of Home Affairs of the Swiss Confederation and the Consejo Nacional de Ciencia, Tecnología e [Innovación](#) Tecnológica (CONCYTEC) of 28 December 2006.”

21. China – Costa Rica RTA (in force since 01 Aug. 2011):

“Chapter 10 Intellectual Property

Article 109: Principles

1. The Parties recognize the importance of intellectual property rights in promoting economic and social development, particularly in the globalization of technological [innovation](#), science and trade, as well as the transfer and dissemination of knowledge and technology to the mutual advantage of technology producers and users, and agree to encourage the development of socio-economic welfare and trade.

Article 111: Genetic Resources, Traditional Knowledge and Folklore

(...) 3. Subject to each Party’s international obligations and domestic laws, the Parties may adopt or maintain measures to promote the conservation of biological diversity, share equitably benefits arising from the use of traditional knowledge, [innovations](#) and practices relevant to the conservation of biological diversity and the sustainable use of its components in conformity with what is established in the Convention on Biological Diversity.

Article 113: Technical [Innovation](#) and Transfer of Technology

1. The Parties recognize the importance of technology and knowledge transfer as a tool to promote [innovation](#) and creative works in order to achieve economic growth.
2. The protection and enforcement of intellectual property rights in each Party should contribute to the promotion of technological [innovation](#) and the transfer and dissemination of technology. Subject to domestic laws and regulations, the Parties may further discuss the possibility of providing incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to the other Party.

Article 117: Cooperation

1. The Parties shall cooperate, on mutually agreed terms and subject to the availability of appropriate funds, in the following activities:
(a) education and dissemination projects on the use of intellectual property as a research and [innovation](#) tool;
(b) training and specialization courses for public servants on intellectual property rights and other mechanisms;
(c) exchange of information regarding conservation and sustainable use of biological diversity;
(d) exchange of information regarding actions to prevent the illegal access to genetic resources, traditional knowledge, [innovation](#) and practices;
(e) exchange of information regarding internal procedures for sharing equitable benefits arising from the use of genetic resources, traditional knowledge, [innovations](#) and practices;
(...)”

22. Japan – Peru RTA (in force since 01 Mar. 2012):

“Chapter 11

Intellectual Property Rights

Article 188

Other Considerations

1. The protection and enforcement of intellectual property rights should contribute to the promotion of technological [innovation](#) and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.”

23. Peru – Panama RTA (in force since 01 May 2012):

“Capítulo 9 Propiedad Intelectual

Artículo 9.1: Principios Básicos

1. Las Partes reconocen que la protección y observancia de los derechos de propiedad intelectual deberán contribuir a la generación de conocimiento, la promoción de la [innovación](#), transferencia y difusión de tecnología y al progreso cultural, en beneficio recíproco de los productores y de los usuarios de conocimientos tecnológicos y culturales, favoreciendo el desarrollo del bienestar social y económico y el balance de derechos y obligaciones.

(...)

6. Las Partes contribuirán a la implementación y respeto de la Decisión del Consejo General de la OMC del 30 de agosto de 2003 sobre el párrafo 6 de la Declaración Relativa al Acuerdo sobre los ADPIC y la Salud Pública, y el Protocolo por el que se enmienda el Acuerdo sobre los ADPIC, suscrito en Ginebra el 6 de diciembre de 2005. Asimismo, reconocen la importancia de promover la implementación gradual de la Resolución WHA61.21, Estrategia mundial y plan de acción sobre salud pública, [innovación](#) y propiedad intelectual, adoptada por la 61a Asamblea Mundial de la Salud, el 24 de mayo de 2008.

Artículo 9.5: Conocimientos Tradicionales

1. Cada Parte, de conformidad con su legislación nacional, reconoce el derecho de las comunidades indígenas y locales sobre sus conocimientos tradicionales, y reitera su compromiso de respetar, preservar y mantener los conocimientos tradicionales, [innovaciones](#) y prácticas de las comunidades indígenas y locales de los territorios de las Partes.

Artículo 9.6: Medidas Relacionadas con la Protección a la Biodiversidad y los Conocimientos Tradicionales

(...) 2. Las Partes reconocen la importancia y valor de los conocimientos, [innovaciones](#) y prácticas de las comunidades indígenas y locales, así como la contribución pasada, presente y futura de las mismas a la conservación y uso sostenible de los recursos biológicos y genéticos y sus productos derivados, y en general, la contribución de los conocimientos tradicionales de tales comunidades a la cultura y al desarrollo económico y social de las naciones.

3. Cada Parte, de conformidad con su legislación nacional, reitera su compromiso de respetar, preservar y mantener los conocimientos tradicionales, [innovaciones](#) y prácticas de las colectividades indígenas y locales del territorio de cada Parte.

(...)

10. Las Partes acuerdan colaborar, a solicitud de cualquiera de ellas, en el suministro de información pública que tengan a su disposición para la investigación y seguimiento del acceso ilegal a recursos genéticos y/o conocimientos, [innovaciones](#) y prácticas tradicionales en sus territorios.

Artículo 9.9: Cooperación y Ciencia y Tecnología

1. Las Partes intercambiarán información y material en proyectos de educación y diseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

(...) (c) promover el diálogo y la cooperación con relación a la ciencia, la tecnología, el emprendimiento y la [innovación](#); y

(d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo tecnológico, el emprendimiento y la [innovación](#), así como la importancia de diseminar la información tecnológica y de crear y fortalecer sus capacidades tecnológicas; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la [innovación](#), el emprendimiento, la transferencia y la difusión de tecnología entre las Partes, dirigidos, entre otros, a empresas, universidades, centros de investigación y centros tecnológicos.

4. Las actividades de cooperación en ciencia y tecnología podrán adoptar, entre otras, las siguientes formas:

(a) participación en proyectos conjuntos de educación, investigación, desarrollo tecnológico e [innovación](#); (...)

7. Las Partes podrán realizar las actividades de cooperación respecto de:

(...) (g) promover la asistencia técnica y capacitación para la implementación de la [innovación](#) y transferencia tecnológica en artesanías.

El plan de cooperación específico se elaborará de manera conjunta entre:

(a) la Dirección General de Artesanías Nacionales del Ministerio de Comercio e Industrias, por parte de Panamá; y

(b) la Dirección Nacional de Artesanías del Ministerio de Comercio Exterior y de Turismo, por parte del Perú.

Dichas entidades definirán las actividades del plan de cooperación, el financiamiento y su implementación.

8. Cada Parte designa como entidades de contacto responsables del cumplimiento de los objetivos de este Artículo, y de facilitar el desarrollo de los proyectos de colaboración y cooperación en investigación, [innovación](#) y desarrollo tecnológico, a las siguientes:

(a) en el caso de Panamá, la Secretaría Nacional de Ciencia, Tecnología e Innovación (SENACYT) y la Autoridad Nacional para la [Innovación](#) Gubernamental (AIG); y

(b) en el caso del Perú, el Consejo Nacional de Ciencia, Tecnología e [Innovación](#) Tecnológica (CONCYTEC), (...).”

24. United States – Colombia RTA (in force since 15 May 2012):

“Chapter Sixteen Intellectual Property Rights

Article 16.12: Promotion of [Innovation](#) and Technological Development

1. The Parties recognize the importance of promoting technological [innovation](#), disseminating technological information, and building technological capacity, including, as appropriate, through collaborative scientific research projects between or among the Parties. Accordingly, the Parties will seek and encourage opportunities for science and technology cooperation and identify areas for such cooperation and, as appropriate, engage in collaborative scientific research projects.

2. The Parties shall give priority to collaborations that advance common goals in science, technology, and [innovation](#) and support partnerships between public and private research institutions and industry. Any such collaborative activities or transfer of technology shall be based on mutually agreed terms.”

25. EU – Colombia, Ecuador and Peru RTA (in force since 01 Mar. 2013):

“TITLE VII 11 INTELLECTUAL PROPERTY

CHAPTER 1

General provisions

Article 195

Objectives

The objectives of this Title are to:

(a) promote [innovation](#) and creativity and facilitate the production and commercialisation of [innovative](#) and creative products between the Parties; and

(b) achieve an adequate and effective level of protection and enforcement of intellectual property rights that contributes to transfer and dissemination of technology and favour social and economic welfare and the balance between the rights of the holders and the public interest.

(...) CHAPTER 2

Protection of biodiversity and traditional knowledge

Article 201

1. The Parties recognise the importance and value of biological diversity and its components and of the associated traditional knowledge, [innovations](#) and practices of indigenous and local communities (62). The Parties furthermore reaffirm their sovereign rights over their natural resources and recognise their rights and obligations as established by the CBD with respect to access to genetic resources, and to the fair and equitable sharing of benefits arising out of the utilization of these genetic resources. (...)

3. Subject to their domestic legislation, the Parties shall, in accordance with Article 8(j) of the CBD respect, preserve and maintain knowledge, [innovations](#) and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity, and promote their wider application conditioned to the prior informed consent of the holders of such knowledge, [innovations](#) and practices, and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, [innovations](#) and practices.

(...) 12. In accordance with applicable international and domestic law, the Parties agree to collaborate in the application of domestic frameworks on access to genetic resources and associated traditional knowledge, [innovations](#) and practices.

(...) CHAPTER 5

Transfer of technology

Article 255

1. The Parties agree to exchange experiences and information on their domestic and international practices and policies affecting transfer of technology (76). Such exchange shall include, in particular, measures to facilitate information flows, business partnerships, licensing and subcontracting deals on a voluntary basis. Particular attention shall be paid to the conditions necessary to create an adequate enabling environment for the promotion of lasting relations between the scientific communities of the Parties, the intensification of activities to promote linkage, [innovation](#) and technology transfer between the Parties, including issues such as the relevant legal framework and development of human capital.

(...) 3. The Parties shall encourage mechanisms for the participation of entities and experts of their respective systems of science, technology and [innovation](#), in projects and joint research, development and [innovation](#) networks, with the purpose of strengthening their capacities in science, technology and [innovation](#). Those mechanisms may include:

- (a) joint research, [innovation](#) and technological development activities as well as educational projects;
- (b) visits and exchanges of scientists, researchers, trainees, and technical experts;
- (c) joint organisation of scientific seminars, conferences, symposia and workshops, as well as the participation of experts in those activities;
- (d) joint research, development, and [innovation](#) networks; (...)

4. The Parties should consider establishing mechanisms for the exchange of information about research, development and [innovation](#) projects financed from public resources.

6. Each Party shall make its best efforts to evaluate the possibilities to facilitate the entry and exit from its territory of data and equipment related to or used in research, [innovation](#) and technological development activities by the Parties under the provisions of this Article, pursuant to the legislative and regulatory provisions applicable in the territory of each Party, including the regimes regarding export control of dual use products and its related legislation.

Article 271

Trade Favouring Sustainable Development

1. The Parties reaffirm that trade should promote sustainable development. The Parties also recognise the beneficial role that core labour standards and decent work can have on economic efficiency, [innovation](#) and productivity, as well as the value of greater coherence between trade policies, on the one hand, and labour policies on the other.

Article 272

Biological Diversity

(...) 4. The Parties recognize their obligation in accordance with the CBD to, subject to their domestic legislation, respect, preserve and maintain knowledge, [innovations](#) and practices of indigenous and local communities embodying traditional life- styles relevant for the conservation and sustainable use of biological diversity and promote their wider application conditioned to the prior informed consent of the holders of such knowledge, [innovations](#) and practices, and encourage the fair and equitable sharing of the benefits arising from the utilisation of such knowledge, [innovation](#) and practices.

Article 275

Climate Change

(...) 5. The Parties agree to consider actions to contribute to achieving climate change mitigation and adaptation objectives through their trade and investment policies, inter alia by:

(a) facilitating the removal of trade and investment barriers to access to, [innovation](#), development, and deployment of goods, services and technologies that can contribute to mitigation or adaptation, taking into account the circumstances of developing countries;”

26. Korea – Türkiye RTA - The Framework Agreement (Goods: in force since 01 May 2013; Services: in force since 01 Aug. 2018):

“FRAMEWORK AGREEMENT:

(...)

CHAPTER 2

INTELLECTUAL PROPERTY RIGHTS

ARTICLE 2.1: GENERAL PROVISIONS

1. The Parties recognise the importance of intellectual property in promoting economic and social development, technological [innovation](#), and the transfer and dissemination of technology to the mutual advantage of technology producers and users, particularly in the new digital economy.

(...) 3. The objectives of this Chapter are:

(a) to facilitate the production and commercialisation of [innovative](#) and creative products in the Parties; and

(b) to achieve an adequate and effective level of protection and enforcement of intellectual property rights.”

27. Costa Rica – Peru RTA (in force since 01 Jun. 2013):

“Capítulo 9 Propiedad Intelectual

1. Las Partes reconocen que la protección y observancia de los derechos de propiedad intelectual deberán contribuir a la generación de conocimiento, la promoción de la [innovación](#), transferencia y difusión de tecnología y al progreso cultural, en beneficio recíproco de los productores y de los usuarios de conocimientos tecnológicos y culturales, favoreciendo el desarrollo del bienestar social y económico y el balance de derechos y obligaciones.

(...)

Artículo 9.5: Medidas Relacionadas con la Protección a la Biodiversidad y los Conocimientos Tradicionales

(...) 2. Las Partes reconocen la importancia y valor de los conocimientos, [innovaciones](#) y prácticas de las comunidades indígenas y locales², así como la

contribución pasada, presente y futura de las mismas a la conservación y uso sostenible de los recursos biológicos y genéticos y sus productos derivados, y en general, la contribución de los conocimientos tradicionales de tales comunidades a la cultura y al desarrollo económico y social de las naciones.

Cada Parte, de conformidad con su legislación nacional, reitera su compromiso de respetar, preservar y mantener los conocimientos tradicionales, [innovaciones](#) y prácticas de las colectividades indígenas y locales de los territorios de las Partes.

(...)

9. Las Partes acuerdan, a solicitud de cualquiera de ellas, colaborar en el suministro de información pública que tengan a su disposición para la investigación y seguimiento del acceso ilegal a recursos genéticos y/o conocimientos, [innovaciones](#) y prácticas tradicionales en sus territorios.

Artículo 9.8: Cooperación y Ciencia y Tecnología

1. Las Partes intercambiarán información y material en proyectos de educación y diseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

(a) mejorar y fortalecer los sistemas administrativos de la propiedad intelectual para promover el registro eficiente de los derechos de propiedad intelectual;

(b) estimular la creación y desarrollo de la propiedad intelectual dentro del territorio de las Partes, particularmente de los pequeños inventores y creadores, así como de las micro, pequeñas y medianas empresas;

(c) promover el diálogo y la cooperación con relación a la ciencia, la tecnología, el emprendimiento y la [innovación](#); y

(d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo tecnológico, el emprendimiento y la [innovación](#), así como la importancia de diseminar la información tecnológica y de crear y fortalecer sus capacidades tecnológicas; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la [innovación](#), el emprendimiento, la transferencia y la difusión de tecnología entre las Partes, dirigidos, entre otros, a empresas, universidades, centros de investigación y centros tecnológicos.

4. Las actividades de cooperación en ciencia y tecnología podrán adoptar, entre otras, las siguientes formas:

(a) participación en proyectos conjuntos de educación, investigación, desarrollo tecnológico e [innovación](#);

(...)

6. Cada Parte designa como entidades de contacto responsables del cumplimiento de los objetivos de este Artículo, y de facilitar el desarrollo de los proyectos de colaboración y cooperación en investigación, [innovación](#) y desarrollo tecnológico, a las siguientes:

(a) Costa Rica: el Ministerio de Comercio Exterior, en coordinación con el Ministerio de Justicia y Paz y el Ministerio de Ciencia y Tecnología; y

(b) el Perú: el Consejo Nacional de Ciencia, Tecnología e [Innovación](#) Tecnológica (CONCYTEC), o sus sucesores.”

28. Costa Rica – Singapore RTA (in force since 01 Jul. 2013):

“Chapter 13

Intellectual Property and [Innovation](#)

Article 13.1: Principles

1. The Parties recognize the importance of intellectual property rights in promoting economic and social development, particularly in the globalization of technological [innovation](#) and trade, science, as well as the transfer and dissemination of knowledge and technology to the mutual advantage of technology producers and users, and agree

to encourage the development of social economic well-being and trade through these means.

2. The Parties recognize the need to achieve a balance between the rights of right holders and the legitimate interests of users and the community with regard to protected subject matter.”

29. EU – Central America¹⁹⁷ RTA (in force since 01 Aug. 2013):

“TITLE VI
INTELLECTUAL PROPERTY
CHAPTER 1

Objectives and principles

(...) Article 229

Nature and Scope of Obligations

(...) 5. The Parties recognise the importance of respecting, preserving and maintaining the indigenous and local communities' knowledge, [innovations](#) and practices that involve traditional practices related to the preservation and the sustainable use of biological diversity.

Article 231

Transfer of Technology

(...) 4. The Parties recognise the importance of creating mechanisms that strengthen and promote investment in the Republics of the CA Party, especially in [innovative](#) and high-tech sectors. The EU Party shall make its best efforts to offer to the institutions and enterprises in its territories incentives destined to promote and to favour the transfer of technology to institutions and enterprises of the Republics of the CA Party, in such a way as to allow them to establish a viable technological platform.”

30. New Zealand – Chinese Taipei RTA (in force since 01 Dec. 2013):

“CHAPTER 10 INTELLECTUAL PROPERTY

Article 1 Objectives

The objectives of this Chapter are to:

(a) promote the importance of intellectual property rights in fostering trade in goods and services, [innovation](#), and economic, social and cultural development; (...)”

31. Iceland – China RTA (in force since 01 Jul. 2014):

“CHAPTER 6 INTELLECTUAL PROPERTY RIGHTS

Article 63

General Provisions

1. The Parties recognise the importance of intellectual property rights in promoting economic and social development, particularly in the new digital economy, technological [innovation](#) and trade, as well as the need to achieve a balance between the rights of right holders and the legitimate interests of users and the community with regard to protected subject matter.”

32. EU – Georgia RTA (in force since 01 Sep. 2014):

“CHAPTER 9

Intellectual property rights

Section 1

General provisions

Article 150

Objectives

¹⁹⁷ According to the WTO RTAs Database, “Central America” in this specific case refers to: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

The objectives of this Chapter are to:

(a) facilitate the production and commercialisation of [innovative](#) and creative products between the Parties; and (b) achieve an adequate and effective level of protection and enforcement of intellectual property rights. (...)

33. EU – Moldova RTA (in force since 01 Sep. 2014):

“CHAPTER 9

Intellectual property rights

Section 1

General provisions and principles

Article 277

Objectives

The objectives of this Chapter are to:

(a) facilitate the production and commercialisation of [innovative](#) and creative products between the Parties; and (b) achieve an adequate and effective level of protection and enforcement of intellectual property rights. (...)

34. Eurasian Economic Union (EAEU)¹⁹⁸ (in force since 01 Jan. 2015):

“SECTION XXIII

INTELLECTUAL PROPERTY

Article 89

General Provisions

(...) 2. Cooperation of member States shall be performed in accordance with the following directions:

1) support of scientific and [innovative](#) development; (...)

35. Mexico – Panama RTA (in force since 01 Jul. 2015):

“CAPÍTULO 15

PROPIEDAD INTELECTUAL

(...) Artículo 15.2: Principios Básicos

1. Las Partes reconocen que la protección y observancia de los derechos de propiedad intelectual deberán contribuir a la generación de conocimiento, la promoción de la [innovación](#), transferencia y difusión de tecnología y a progreso cultural, en beneficio recíproco de los productores y de los usuarios de conocimientos tecnológicos y culturales, favoreciendo el desarrollo del bienestar social y económico y el balance de derechos y obligaciones”.

36. Australia – China RTA (in force since 20 Dec. 2015):

“CHAPTER 11

INTELLECTUAL PROPERTY

ARTICLE 11.1: PURPOSE AND PRINCIPLES

The purpose of this Chapter is to increase the benefits from trade and investment through the protection and enforcement of intellectual property rights. The Parties recognise that:

(a) establishing and maintaining transparent intellectual property systems and promoting and maintaining adequate and effective protection and enforcement of intellectual property rights provides certainty to rights holders and users;

(b) protecting and enforcing intellectual property rights should contribute to the promotion of technological [innovation](#) and to the transfer and dissemination of technology;

(c) intellectual property protection promotes economic and social development and can reduce distortion and obstruction to international trade;

¹⁹⁸ According to the WTO RTA Database, the EAEU is comprised of: Armenia; Belarus; Kazakhstan; Kyrgyz Republic; Russian Federation.

- (d) intellectual property systems should support open, [innovative](#) and efficient markets, including through the effective creation, utilisation, protection and enforcement of intellectual property rights, appropriate limitations and exceptions, and an appropriate balance between the legitimate interests of rights holders, users and the public interest;
- (e) intellectual property systems should not themselves become barriers to legitimate trade; (...).”

37. Korea – Viet Nam RTA (in force since 20 Dec. 2015):

“CHAPTER 12 INTELLECTUAL PROPERTY

The objectives of this Chapter are to:

- (a) enhance the role of intellectual property in promoting economic and social development, particularly in relation to technological [innovation](#), transfer and dissemination of technology and trade; (...).”

38. Japan – Mongolia RTA – Implementation Agreement (in force since 07 Jun. 2016):

“Article 5.6

Science and Technology and Intellectual Property

Pursuant to Article 15.2 of the Basic Agreement, in the field referred to in subparagraph (f) of Article 15.1 of the Basic Agreement:

- (a) the areas of cooperation may include:
 - (i) encouraging [innovation](#);
 - (ii) advanced science and technology;
 - (iii) utilization of intellectual property rights for [innovation](#) and economic growth;
 - (iv) capacity building in the field of enforcement of intellectual property rights at the border;
 - (v) capacity building for organizations for collective management of copyrights and related rights;
 - (vi) development of human resources with advanced knowledge and skills; and
 - (vii) other areas as may be agreed by the Parties; and (...).”

39. Korea – Colombia RTA (in force since 15 Jul. 2016):

“CHAPTER FIFTEEN

INTELLECTUAL PROPERTY RIGHTS

ARTICLE 15.1: OBJECTIVES

The objectives of this Chapter are:

- (a) to increase the benefits from trade and investment;
- (b) to promote [innovation](#) and creativity;
- (c) to facilitate production and commercialization of [innovative](#) and creative products; and
- (d) to contribute to the transfer and dissemination of technology, in a manner conducive to social and economic welfare, and to the balance between the rights of the right holders and the public interest.

ARTICLE 15.10: TECHNOLOGY TRANSFER AND COOPERATION

Technology Transfer

1. The Parties recognize the importance of technological [innovation](#) as well as transfer of technology and dissemination of scientific and technological information to the mutual advantage of technology producers and users. Accordingly, the Parties will seek to develop and encourage cooperation programs, through collaborations in science, technology, and [innovation](#). The Parties shall take into account the cooperation issues and activities developed under the Agreement on Scientific and Technical Cooperation between the Parties, signed in 1981, with the purpose of encouraging and strengthening the cooperative activities on research, [innovation](#), and technology transfer.”

40. Colombia – Costa Rica RTA (in force since 01 Aug. 2016):

“CAPÍTULO 9

PROPIEDAD INTELECTUAL

ARTÍCULO 9.1: PRINCIPIOS BÁSICOS

1. Las Partes reconocen que la protección y observancia de los derechos de propiedad intelectual deberán contribuir a la generación de conocimiento, la promoción de la [innovación](#), transferencia y difusión de tecnología y al progreso cultural, en beneficio recíproco de los productores y de los usuarios de conocimientos tecnológicos y culturales, favoreciendo el desarrollo del bienestar social y económico y el balance de derechos y obligaciones.

ARTÍCULO 9.5: MEDIDAS RELACIONADAS CON LA PROTECCIÓN A LA BIODIVERSIDAD Y LOS CONOCIMIENTOS TRADICIONALES

(...) 2. Las Partes reconocen la importancia y valor de los conocimientos, [innovaciones](#) y prácticas de las comunidades indígenas y locales³, así como la contribución pasada, presente y futura de las mismas a la conservación y uso sostenible de los recursos biológicos y genéticos y sus productos derivados, y en general, la contribución de los conocimientos tradicionales de tales comunidades a la cultura y al desarrollo económico y social de las naciones. Cada Parte, de conformidad con su legislación, reitera su compromiso de respetar, preservar y mantener los conocimientos tradicionales, [innovaciones](#) y prácticas de las comunidades indígenas y locales de los territorios de las Partes.

(...)

9. Las Partes acuerdan, a solicitud de cualquiera de ellas, colaborar en el suministro de información pública que tengan a su disposición para la investigación y seguimiento del acceso ilegal a recursos genéticos y/o conocimientos, [innovaciones](#) y prácticas tradicionales en sus territorios.

ARTÍCULO 9.8: COOPERACIÓN Y CIENCIA, TECNOLOGÍA E [INNOVACIÓN](#)

1. Las Partes intercambiarán información y material en proyectos de educación y disseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

- (a) mejorar y fortalecer los sistemas administrativos de la propiedad intelectual para promover el registro eficiente de los derechos de propiedad intelectual;
- (b) estimular la creación y desarrollo de la propiedad intelectual dentro del territorio de las Partes, particularmente de los pequeños inventores y creadores, así como de las micro, pequeñas y medianas empresas;
- (c) promover el diálogo y la cooperación con relación a la ciencia, la tecnología, el emprendimiento y la [innovación](#); y
- (d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo tecnológico, el emprendimiento y la [innovación](#), así como la importancia de disseminar la información tecnológica y de crear y fortalecer sus capacidades tecnológicas; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la [innovación](#), el emprendimiento, la transferencia y la difusión de tecnología entre las Partes, dirigidos, entre otros, a empresas, instituciones de educación superior y, centros de investigación y desarrollo tecnológico.

4. Las actividades de cooperación en ciencia, tecnología e [innovación](#) podrán adoptar, entre otras, las siguientes formas:

(a) participación en proyectos conjuntos de educación, investigación, desarrollo tecnológico e [innovación](#); (...)

(e) acciones concertadas para la difusión de los resultados y el intercambio de experiencias en torno a los proyectos conjuntos de ciencia tecnología e [innovación](#) y para la coordinación de los mismos;

(...)

6. Cada Parte designa como entidades de contacto, responsables del cumplimiento de los objetivos del presente Artículo, y de facilitar el desarrollo de los proyectos de

colaboración y cooperación en investigación, [innovación](#) y desarrollo tecnológico, a las siguientes entidades:

(a) en el caso de Colombia, al Ministerio de Comercio, Industria y Turismo en coordinación con el Departamento Administrativo de Ciencia, Tecnología e [Innovación](#) (COLCIENCIAS); y (...)"

41. Peru – Honduras RTA (in force since 01 Jan. 2017):

"(...) Capítulo 9

Propiedad Intelectual

Artículo 9.1: Principios Básicos

1. Las Partes reconocen que la protección y observancia de los derechos de propiedad intelectual deberán contribuir a la generación de conocimiento, la promoción de la [innovación](#), transferencia y difusión de tecnología y al progreso cultural, en beneficio recíproco de los productores y de los usuarios de conocimientos tecnológicos y culturales, favoreciendo el desarrollo del bienestar social y económico y el balance de derechos y obligaciones.

(...) Artículo 9.5: Medidas Relacionadas con la Protección a la Biodiversidad y los Conocimientos Tradicionales

(...) 2. Las Partes reconocen la importancia y valor de los conocimientos, [innovaciones](#) y prácticas de las comunidades indígenas y locales, así como la contribución pasada, presente y futura de las mismas a la conservación y uso sostenible de los recursos biológicos y genéticos y sus productos derivados, y en general, la contribución de los conocimientos tradicionales de tales comunidades a la cultura y al desarrollo económico y social de las naciones.

Cada Parte, de conformidad con su legislación nacional, reitera su compromiso de respetar, preservar y mantener los conocimientos tradicionales, [innovaciones](#) y prácticas de las colectividades indígenas y locales de los territorios de las Partes.

(...) 9. Las Partes acuerdan, a solicitud de cualquiera de ellas, colaborar en el suministro de información pública que tengan a su disposición para la investigación y seguimiento del acceso ilegal a recursos genéticos y/o conocimientos, [innovaciones](#) y prácticas tradicionales en sus territorios.

(...) Artículo 9.8: Cooperación, Ciencia y Tecnología

1. Las Partes intercambiarán información y material en proyectos de educación y disseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

(...) (c) promover el diálogo y la cooperación con relación a la ciencia, la tecnología, el emprendimiento y la [innovación](#); y

(d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo tecnológico, el emprendimiento y la [innovación](#), así como la importancia de disseminar la información tecnológica y de crear y fortalecer sus capacidades tecnológicas; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la [innovación](#), el emprendimiento, la transferencia y la difusión de tecnología entre las Partes, dirigidos, entre otros, a empresas, universidades, centros de investigación y centros tecnológicos.

4. Las actividades de cooperación en ciencia y tecnología podrán adoptar, entre otras, las siguientes formas:

(a) participación en proyectos conjuntos de educación, investigación, desarrollo tecnológico e [innovación](#); (...)

6. Cada Parte designa como entidades de contacto responsables del cumplimiento de los objetivos de este Artículo, y de facilitar el desarrollo de los proyectos de colaboración y cooperación en investigación, [innovación](#) y desarrollo tecnológico, a las siguientes:

(a) en el caso de Honduras: la Secretaría de Estado en el Despacho de Desarrollo Económico; y

(b) en el caso del Perú: el Consejo Nacional de Ciencia, Tecnología e [Innovación](#) Tecnológica (CONCYTEC), o sus sucesores."

42. Canada – Ukraine RTA (in force since 01 Aug. 2017):

“Chapter 11: Intellectual property

Article 11.9: Cooperation on Enforcement of Intellectual Property Rights

(...)

3. The Parties’ respective competent authorities may cooperate, as appropriate, to better identify and target the inspection of shipments suspected of containing certain counterfeit trademark or pirated copyright, and, in doing so, endeavour to:

(a) share information on [innovative](#) approaches that may be developed to provide greater analytical targeting of shipments that could contain counterfeit or pirated goods; and

(b) share information and intelligence regarding shipments of suspected counterfeit trademark or pirated copyright goods in appropriate cases.

Article 11.10: Other Areas of Cooperation

Recognizing the growing importance of intellectual property rights in promoting [innovation](#), social, economic, and cultural development, as well as economic competitiveness in a knowledge based economy, the Parties endeavour to cooperate, subject to availability of resources, in the field of intellectual property in areas of mutual interest.”

43. Türkiye – Singapore RTA (in force since 01 Oct. 2017):

“CHAPTER 15

INTELLECTUAL PROPERTY

(...) SECTION 15-D

COOPERATION

Article 15.24

Cooperation

1. The Parties agree to cooperate with a view to supporting the implementation of the commitments and obligations undertaken in this Chapter. Areas of cooperation include, but are not limited to, the following activities:

(...)

(e) capacity-building and technical cooperation in relation, but not limited, to: management, licensing, valuation and exploitation of intellectual property rights; technology and market intelligence; facilitation of industry collaborations, including on intellectual property rights that may be applied towards environmental conservation or enhancement which may include establishing a platform or database; and public private partnerships to support culture and [innovation](#).”

44. China – Georgia RTA (in force since 01 Jan. 2018):

“CHAPTER 11

INTELLECTUAL PROPERTY

ARTICLE 11.1: PURPOSE AND PRINCIPLES

The purpose of this Chapter is to increase the benefits from trade and investment through the protection and enforcement of intellectual property rights. The Parties recognise that:

(...) (b) protecting and enforcing intellectual property rights should contribute to the promotion of technological [innovation](#) and to the transfer and dissemination of technology;

(c) intellectual property protection promotes economic and social development, and can reduce distortion and obstruction to international trade;

(d) intellectual property systems should support open, [innovative](#) and efficient markets, including through the effective creation, utilisation, protection, and enforcement of intellectual property rights, appropriate limitations and exceptions, and an appropriate balance between the legitimate interests of rights holders, users and the public interest; (...)”

45. EU – Armenia RTA (in force since 01 Jun. 2018):

“CHAPTER 7

Intellectual property

Section A

Objectives and principles

Article 209

Objectives

The objectives of this Chapter are:

(a) to facilitate the production and commercialisation of [innovative](#) and creative products between the Parties, contributing to a more sustainable and inclusive economy for each Party; and (...)”

46. CPTPP¹⁹⁹ (in force since 30 Dec. 2018):

“CHAPTER 18

INTELLECTUAL PROPERTY

Section A: General Provisions

(...) Article 18.2: Objectives

The protection and enforcement of intellectual property rights should contribute to the promotion of technological [innovation](#) and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

(...) Article 18.4: Understandings in Respect of this Chapter

Having regard to the underlying public policy objectives of national systems, the Parties recognise the need to:

(a) promote [innovation](#) and creativity;

(b) facilitate the diffusion of information, knowledge, technology, culture and the arts; and

(c) foster competition and open and efficient markets, through their respective intellectual property systems, while respecting the principles of transparency and due process, and taking into account the interests of relevant stakeholders, including right holders, service providers, users and the public.

Article 18.13: Cooperation Activities and Initiatives

The Parties shall endeavour to cooperate on the subject matter covered by this Chapter, such as through appropriate coordination, training and exchange of information between the respective intellectual property offices of the Parties, or other institutions, as determined by each Party. Cooperation may cover areas such as:

(...) (d) intellectual property issues relevant to:

(i) small and medium-sized enterprises;

(ii) science, technology and [innovation](#) activities; and

(iii) the generation, transfer and dissemination of technology;

(e) policies involving the use of intellectual property for research, [innovation](#) and economic growth; (...).”

47. EU – Japan RTA (in force since 01 Feb. 2019):

“CHAPTER 14

INTELLECTUAL PROPERTY

SECTION A

General provisions

ARTICLE 14.1

Initial provisions

¹⁹⁹ According to the WTO RTAs Database, the parties to the CPTPP are: Australia; Brunei Darussalam; Canada; Chile; Japan; Malaysia; Mexico; New Zealand; Peru; Singapore; Viet Nam.

1. In order to facilitate the production and commercialisation of **innovative** and creative products and the provision of services between the Parties and to increase the benefits from trade and investment, the Parties shall grant and ensure adequate, effective and non-discriminatory protection of intellectual property and provide for measures for the enforcement of intellectual property rights against infringement thereof, including counterfeiting and piracy, in accordance with the provisions of this Chapter and of the international agreements to which both Parties are party.

(...) ARTICLE 14.2

Agreed principles

Having regard to the underlying public policy objectives of domestic systems, the Parties recognise the need to:

(a) promote **innovation** and creativity;

(b) facilitate the diffusion of information, knowledge, technology, culture and the arts; and

(c) foster competition and open and efficient markets, through their respective intellectual property systems, while respecting the principles of, inter alia, transparency and non-discrimination, and taking into account the interests of relevant stakeholders including right holders and users.

SECTION D

Cooperation and institutional arrangements

ARTICLE 14.52

Cooperation

(...) 2. For the purpose of paragraph 1, cooperation may include exchange of information, sharing of experiences and skills and any other form of cooperation or activities as may be agreed between the Parties. Such cooperation may cover areas such as:

(...) (d) intellectual property issues relevant to:

(i) small and medium-sized enterprises;

(ii) science, technology and **innovation** activities; and

(iii) the generation, transfer and dissemination of technology;

(e) policies involving the use of intellectual property for research, **innovation** and economic growth;”

48. Hong Kong – Georgia RTA (in force since 13 Feb. 2019):

“CHAPTER 11

INTELLECTUAL PROPERTY

(...) Article 2

Purpose and Principles

(...) (b) protecting and enforcing intellectual property rights should contribute to the promotion of technological **innovation** and to the transfer and dissemination of technology;

(c) intellectual property protection promotes economic and social development and can reduce distortion and obstruction to international trade;

(d) intellectual property systems should support open, **innovative** and efficient markets, including through the effective creation, utilisation, protection and enforcement of intellectual property rights, appropriate limitations and exceptions, and an appropriate balance between the legitimate interests of rights holders, users and the public interest;”

49. EU – Singapore RTA (in force since 21 Nov. 2019):

“CHAPTER TEN

INTELLECTUAL PROPERTY

ARTICLE 10.1

Objectives

1. The objectives of this Chapter are to:

- (a) facilitate the production and commercialisation of **innovative** and creative products and the provision of services between the Parties; and
- (b) increase the benefits from trade and investment through the adequate and effective level of protection of intellectual property rights and the provision of measures for the effective enforcement of such rights.”

50. Australia – Hong Kong RTA (in force since 17 Jan. 2020):

“CHAPTER 14

INTELLECTUAL PROPERTY

(...) Article 14.2: Purpose and Principles

1. The purpose of this Chapter is to increase the benefits from trade and investment through the protection and enforcement of intellectual property rights. The Parties recognise:

(...) (b) that protecting and enforcing intellectual property rights should contribute to the promotion of creativity, technological **innovation** and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations;

(c) the importance of facilitating the diffusion of information, knowledge, content, culture and the arts and the need to promote international trade, **innovation** and creativity, and economic and social development;

(d) that intellectual property systems should support open, **innovative** and efficient markets, including through the effective creation, utilisation, protection and enforcement of intellectual property rights, appropriate limitations and exceptions, and an appropriate balance between the legitimate interests of rights holders, users and the public interest; and (...)”

51. Peru – Australia RTA (in force since 11 Feb. 2020):

“CHAPTER 17

INTELLECTUAL PROPERTY

Article 17.2: Objectives

The protection and enforcement of intellectual property rights should contribute to the promotion of technological **innovation** and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations. (...)

Article 17.4: Understandings in Respect of this Chapter

Having regard to the underlying public policy objectives of national systems, the Parties recognise the need to:

(a) promote **innovation** and creativity;

(b) facilitate the diffusion of information, knowledge, technology, culture and the arts; and

(c) foster competition and open and efficient markets, through their respective intellectual property systems, while respecting the principles of transparency and due process, and taking into account the interests of relevant stakeholders, including right holders, users and the public.”

52. United States-Mexico-Canada Agreement (USMCA/CUSMA/T-MEC) (in force since 01 Jul. 2020):

“CHAPTER 20 INTELLECTUAL PROPERTY RIGHTS

Article 20.2: Objectives

The protection and enforcement of intellectual property rights should contribute to the promotion of technological **innovation** and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological

knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

(...) Article 20.4: Understandings in Respect of this Chapter

Having regard to the underlying public policy objectives of national systems, the Parties recognize the need to:

(a) promote [innovation](#) and creativity; (...)

Article 20.14: Committee on Intellectual Property Rights

1. The Parties hereby establish a Committee on Intellectual Property Rights (IPR Committee), composed of government representatives of each Party.

2. The IPR Committee shall:

(a) exchange information, pertaining to intellectual property rights matters, including how intellectual property protection contributes to [innovation](#), creativity, economic growth, and employment, such as: (...)

(iii) intellectual property issues particularly relevant to small and medium-sized enterprises; science, technology, and [innovation](#) activities; and to the generation, transfer, and dissemination of technology.”

53. EU – Viet Nam RTA (in force since 13 Jul. 2020):

“CHAPTER 12

Intellectual property

Section A

General provisions and principles

Article 12.1

Objectives

1. The objectives of this Chapter are to:

(a) facilitate the creation, production and commercialisation of [innovative](#) and creative products between the Parties, contributing to a more sustainable and inclusive economy in each Party; and (...)

(...) 2. The protection and enforcement of intellectual property rights should contribute to the promotion of technological [innovation](#) and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations (...)

54. United Kingdom – CARIFORUM States²⁰⁰ RTA (in force since 01 Jan. 2021):

“CHAPTER 2

[Innovation](#) and intellectual property

Article 131

Context

1. The Parties agree that fostering [innovation](#) and creativity improves competitiveness and is a crucial element in their economic partnership, in achieving sustainable development, promoting trade between them and ensuring the gradual integration of CARIFORUM States into the world economy.

2. They also recognise that the protection and enforcement of intellectual property plays a key role in fostering creativity, [innovation](#) and competitiveness, and are determined to ensure increasing levels of protection appropriate to their levels of development.

Article 132

Objectives

The objectives of this Chapter are to:

(a) promote the process of [innovation](#), including [ecoinnovation](#), of enterprises located in the Parties;

(...)

²⁰⁰ According to the WTO RTAs Database, the CARIFORUM States are comprised of: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Haiti; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

- (c) facilitate the production and commercialisation of **innovative** and creative products between the Parties;
- (d) achieve an adequate and effective level of protection and enforcement of intellectual property rights;
- (e) contribute to the promotion of technological **innovation** and to the transfer and dissemination of technology and know-how; (...)"

55. United Kingdom – Georgia RTA (in force since 01 Jan. 2021):

“CHAPTER 9

Intellectual property rights

Section 1

General Provisions

ARTICLE 142

Objectives

The objectives of this Chapter are to:

- (a) facilitate the production and commercialisation of **innovative** and creative products between the Parties; and
- (b) achieve an adequate and effective level of protection and enforcement of intellectual property rights.”

56. United Kingdom – Japan RTA (in force since 01 Jan. 2021):

“CHAPTER 14 INTELLECTUAL PROPERTY

(...)

ARTICLE 14.1

Initial provisions

1. In order to facilitate the production and commercialisation of **innovative** and creative products and the provision of services between the Parties and to increase the benefits from trade and investment, the Parties shall grant and ensure adequate, effective and non-discriminatory protection of intellectual property and provide for measures for the enforcement of intellectual property rights against infringement thereof, including counterfeiting and piracy, in accordance with the provisions of this Chapter and of the international agreements to which both Parties are party.

ARTICLE 14.2

Agreed principles

Having regard to the underlying public policy objectives of domestic systems, the Parties recognize the need to:

- (a) promote **innovation** and creativity;
- (b) facilitate the diffusion of information, knowledge, technology, culture and the arts; and
- (c) foster competition and open and efficient markets, through their respective intellectual property systems, while respecting the principles of, inter alia, transparency and non-discrimination, and taking into account the interests of relevant stakeholders including right holders and users.

ARTICLE 14.60

Cooperation

1. The Parties, recognising the growing importance of the protection of intellectual property in further promoting trade and investment between them, shall cooperate on intellectual property, including by exchange information on relations of a Party with third countries on matters concerning intellectual property, in accordance with their respective laws and regulations and subject to their available resources.

2. For the purposes of paragraph 1, cooperation may include exchange of information, sharing of experiences and skills and any other form of cooperation or activities as may be agreed between the Parties. Such cooperation may cover areas such as:

- (a) developments in domestic and international intellectual property policy;

- (b) intellectual property administration and registration systems;
- (c) education and awareness relating to intellectual property;
- (d) intellectual property issues relevant to:
 - (i) small and medium-sized enterprises;
 - (ii) science, technology and [innovation](#) activities; and
 - (iii) the generation, transfer and dissemination of technology;
- (e) policies involving the use of intellectual property for research, [innovation](#) and economic growth;
- (f) the implementation of multilateral intellectual property agreements, such as those concluded or administered under the auspices of the WIPO;”

57. United Kingdom – Moldova RTA (in force since 01 Jan. 2021):

“CHAPTER 9
INTELLECTUAL PROPERTY RIGHTS
(...) ARTICLE 247

Objectives

The objectives of this Chapter are to:

- (a) facilitate the production and commercialisation of [innovative](#) and creative products between the Parties; and
- (b) achieve an adequate and effective level of protection and enforcement of intellectual property rights.”

58. United Kingdom – Ukraine RTA (in force since 01 Jan. 2021):

“CHAPTER 9
INTELLECTUAL PROPERTY
ARTICLE 147

Objectives

The objectives of this Chapter are to:

- (a) facilitate the production and commercialisation of [innovative](#) and creative products in the Parties; and
- (b) achieve an adequate and effective level of protection and enforcement of intellectual property rights.

SUB-SECTION 7
OTHER PROVISIONS
(...) ARTICLE 219

Genetic Resources, Traditional Knowledge and Folklore

1. Subject to their domestic legislation, the Parties shall respect, preserve and maintain knowledge, [innovations](#) and practices of indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity, and promote their wider application with the involvement and approval of the holders of such knowledge, [innovations](#) and practices, and encourage equitable sharing of the benefits arising from the utilisation of such knowledge, [innovations](#) and practices.

ARTICLE 279

Trade favouring Sustainable Development

1. The Parties reaffirm that trade should promote sustainable development in all its dimensions. The Parties recognise the beneficial role that core labour standards and decent work can have on economic efficiency, [innovation](#) and productivity, and they highlight the value of greater coherence between trade policies, on the one hand, and employment and social policies on the other.”

59. India – United Arab Emirates RTA (entered into force in 22 Sep. 2022):

“CHAPTER 11 INTELLECTUAL PROPERTY
ARTICLE 11.2 Objectives

The protection and enforcement of intellectual property rights should contribute to the promotion of technological [innovation](#) and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

ARTICLE 11.4 Understandings in Respect of this Chapter

Having regard to the underlying public policy objectives of national systems, the Parties recognise the need to:

- (a) promote [innovation](#) and creativity;
- (b) facilitate the diffusion of information, knowledge, technology, culture and the arts; and
- (c) foster competition through their respective intellectual property systems, while respecting the principles of transparency and due process, and taking into account the interests of right holders, users and the public.

ARTICLE 11.12

Cooperation Activities and Initiatives

The Parties shall endeavour to cooperate on the subject matter covered by this Chapter, such as through appropriate coordination, training and exchange of information between the respective intellectual property offices of the Parties, or other institutions, as determined mutually by the Parties. Cooperation may cover areas such as:

- (a) developments in domestic and international intellectual property policy;
- (b) intellectual property administration and registration systems;
- (c) education and awareness relating to intellectual property;
- (d) intellectual property issues relevant to:
 - (i) small and medium-sized enterprises;
 - (ii) science, technology and [innovation](#) activities; and
 - (iii) the generation, transfer and dissemination of technology;
- (e) policies involving the use of intellectual property for research, [innovation](#) and economic growth;
- (f) implementation of multilateral intellectual property agreements, such as those concluded or administered under the auspices of WIPO;
- (g) technical assistance for developing countries;
- (h) genetic resources, traditional knowledge, and traditional cultural expressions; and
- (i) geographical indications.”

5.2.1.3 In Cooperation Provisions

The selected excerpts of the 86 RTAs that mention the term “innovation” or its variations in Cooperation provisions are transcribed below for ease of reference.

1. EU Overseas Countries and Territories (OCT) RTA (in force since 01 Jan. 1971):

“Chapter 3

Research and [innovation](#)

Article 31

Cooperation in research and [innovation](#)

In the context of the association, cooperation in the field of research and [innovation](#) may cover science, technology, including information and communication technologies, with the aim of contributing to the OCTs’ sustainable development and to promoting the OCTs’ role as regional hubs and centres of excellence as well as their industrial competitiveness. In particular, cooperation may concern:

- (a) dialogue, coordination and creation of synergies between OCTs and Union policies and initiatives with regard to science, technology and [innovation](#);
- (b) policy and institutional building within OCTs and concerted actions at local, national or regional level, with a view to developing science, technology and [innovation](#) activities and their application; (...)

Chapter 5

Culture

Article 36

Cultural exchanges and dialogue

(...) 2. Through their cooperation the Union and the OCTs shall seek to stimulate cultural exchanges between each other through:

(...) (c) policy cooperation in order to foster policy development, [innovation](#), audience building and new business models.

Chapter 6

Fight against organised crime

Article 40

Fight against organised crime, trafficking in human beings, child sexual abuse and sexual exploitation, terrorism and corruption

1. In the context of the association, cooperation in the field of organised crime may include:

(a) the development of [innovative](#) and effective means of police and judicial cooperation, including cooperation with other stakeholders such as civil society, in the prevention of and fight against organised crime, trafficking in human beings, child sexual abuse and sexual exploitation, terrorism and corruption; and (...)"

2. Andean Community (CAN)²⁰¹ RTA (in force since 25 May 1988):

“Chapter XIV: Economic and Social Cooperation

(...) Article 142. Member Countries shall promote a joint scientific and technological development process to attain the following objectives:

The creation of the ability to respond subregionally to the challenges of the scientific-technological revolution in course;

The contribution of science and technology to the conception and execution of Andean development strategies and programs; and

Taking advantage of the mechanisms of economic integration in order to induce technological [innovation](#) and productive modernization.”

3. Canada – Israel RTA (in force since 01 Jan. 1997):

“CHAPTER TEN

INTELLECTUAL PROPERTY

(...) Article 10.6: Other Areas of Cooperation

Recognising the growing importance of intellectual property rights in promoting [innovation](#), economic, social and cultural development, as well as economic competitiveness in a knowledge-based and digital economy, the Parties agree to cooperate in the field of intellectual property in areas of mutual interest, including exploring ways to expedite the examination of patent applications and information sharing.

ANNEX 10.5

GUIDELINES FOR THE ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS

(...) Information Sharing

²⁰¹ According to the WTO RTAs Database, the CAN in this case was comprised by: Bolivia, Plurinational State of; Colombia; Ecuador; Peru; Venezuela, Bolivarian Republic of.

5. The Parties' respective authorities may cooperate, as appropriate, to better identify and target the inspection of shipments suspected of containing counterfeit trademark or pirated copyright goods and, in doing so, endeavour to:

(a) share information on [innovative](#) approaches that may be developed to provide greater analytical targeting of shipments that could contain counterfeit trademark or pirated copyright goods; and

(b) share information and intelligence regarding shipments of suspected counterfeit trademark or pirated copyright goods in appropriate cases.

CHAPTER THIRTEEN

TRADE AND GENDER

(...) Article 13.3: Cooperation Activities

(...) 4. Areas of cooperation may include:

(...) (f) promoting female entrepreneurship and women's participation in international trade, including by improving women's access to, and participation and leadership in, science, technology and [innovation](#);

(...)"

4. EU – Palestine RTA (in force since 01 Jul. 1997):

"TITLE II

ECONOMIC COOPERATION AND SOCIAL DEVELOPMENT

(...) Article 38

Industrial cooperation

The main aim will be to:

(...)

— promote research and development, [innovation](#) and technology transfer as far as they benefit industry,

(...)

Article 42

Small and medium-sized enterprises

The objective of cooperation will be the creation of an environment propitious to the development of SMEs on local and export markets through, inter alia:

— promotion of contacts between enterprises, in particular through recourse to the Community's networks and instruments for the promotion of industrial cooperation and partnership,

— easier access to investment finance,

— information and support services,

— enhancement of human resources with the aim of stimulating [innovation](#) and the setting-up of projects and business ventures.

Article 49

Scientific and technological cooperation

The Parties will endeavour to promote cooperation on scientific and technological development.

The aim of cooperation shall be to:

(...) (c) stimulate technological [innovation](#) and the transfer of new technology and know-how;"

5. EU – Tunisia RTA (in force since 01 Mar. 1998):

"TITLE V

ECONOMIC COOPERATION

(...) Article 47

Scientific, technical and technological cooperation

The aim of cooperation shall be to:

(...) (c) stimulate technological [innovation](#) and the transfer of new technology and know-how;

Article 49

Industrial cooperation

The aim of cooperation shall be to:

(...) (d) make the most of Tunisia's human resources and industrial potential through better use of policy in the fields of [innovation](#) and research and technological development;"

6. EU – South Africa RTA (in force since 01 Jan. 2000):

“TITLE IV

ECONOMIC COOPERATION

(...) Article 51

Industry

The aim of cooperation in this area is to facilitate the restructuring and modernisation of the South African industry while fostering its competitiveness and growth and to create conditions favourable to mutually beneficial cooperation between South African and Community industry.

The aim of the cooperation shall be, inter alia:

(...) (d) to promote improved utilisation of South Africa's human resources and industrial potential through, inter alia, the facilitation of access to credit and investment finance and support to industrial [innovation](#), technology transfer, training, research and technological development.”

7. EU – Morocco RTA (in force since 01 Mar. 2000):

“TITLE V

ECONOMIC COOPERATION

(...) Article 47

Scientific, technical and technological cooperation

The aim of cooperation shall be to:

(...) c) stimulate technological [innovation](#) and the transfer of new technology and know-how;

Article 49

Industrial cooperation

The aim of cooperation shall be to:

(...)

(d) make the most of Morocco's human resources and industrial potential through better use of policy in the fields of [innovation](#) and research and technological development;"

8. EU – Israel RTA (in force since 01 Jun. 2000):

“TITLE VI

ECONOMIC COOPERATION

(...) Article 45

Industrial cooperation

The Parties shall promote cooperation in particular in the following areas:

- industrial cooperation between economic operators in the Community and in Israel, including access for Israel to Community networks for the rapprochement of businesses and decentralised cooperation,
- diversification of industrial output in Israel,
- cooperation between small and medium-sized enterprises in the Community and Israel,
- easier access to investment finance,
- information and support services,
- stimulation of [innovation](#).”

9. EU – Jordan RTA (in force since 01 May 2002):

“TITLE V
ECONOMIC COOPERATION
(...)
Article 64
Scientific and technological cooperation
Cooperation has the objective of:
(...) (c) stimulating technological [innovation](#), transfer of new technologies, and dissemination of know-how, in particular with a view to accelerating the adjustment of Jordanian industrial capability.

Article 66
Industrial cooperation
Cooperation shall promote and encourage in particular:
— industrial cooperation between economic operators in the Community and in Jordan, including access for Jordan to the Community’s networks for the rapprochement of businesses and to networks created in the context of decentralised cooperation,
— the modernisation and restructuring of Jordanian industry,
— the establishment and promotion of an environment favourable to the development of private enterprise, in order to stimulate the growth and the diversification of industrial production,
— cooperation between small and medium-sized enterprises in the Community and in Jordan,
— technology transfer, [innovation](#) and R & D,
— diversification of industrial output in Jordan,
— the enhancement of human resources,
— improvement of access to investment finance,
— stimulation of [innovation](#),
— improvement of information support services.”

10. Japan – Singapore RTA (in force since 30 Nov. 2002):

“CHAPTER 13
FINANCIAL SERVICES CO-OPERATION
(...)
Article 107
Regulatory Co-operation
1. The Parties shall promote regulatory co-operation in the field of financial services, with a view to:
(...) (c) maintaining an environment that does not stifle legitimate financial market [innovations](#); and (...)

CHAPTER 19
BROADCASTING
Article 133 - Cooperation in the field of broadcasting
The Parties, recognising both the potential of broadcasting as a means for promoting understanding between the Parties and the rapid development of [innovative](#) broadcasting services, shall encourage co-operation in the field of broadcasting between the Parties.”

11. EU – Chile RTA (Goods: in force since 01 Feb. 2003; Services: in force since 01 Mar. 2005):

“PART III
COOPERATION
Article 16
General objectives

1. The Parties shall establish close cooperation aimed inter alia at:
(...) (c) stimulating productive synergies, creating new opportunities for trade and investment and promoting competitiveness and [innovation](#); (...)

TITLE I ECONOMIC COOPERATION

Article 17

Industrial cooperation

2. The central aims shall be:

- (a) to boost contacts between the Parties' economic operators, with the aim of identifying sectors of mutual interest, especially in the area of industrial cooperation, transfers of technology, trade and investment;
- (b) to strengthen and promote dialogue and exchanges of experience between networks of European and Chilean economic operators;
- (c) to promote industrial cooperation projects, including projects deriving from the process of privatisation and/or opening-up of the Chilean economy; these could cover the establishment of forms of infrastructure stimulated by European investment through industrial cooperation between businesses; and
- (d) to strengthen [innovation](#), diversification, modernisation, development and product quality in businesses.

Article 19

Cooperation on small and medium-sized enterprises

(...) 2. Cooperation shall consist, amongst other actions, of:

- (a) technical assistance;
- (b) conferences, seminars, prospecting for industrial and technical opportunities, participation in round tables and general and sectoral fairs;
- (c) promoting contacts between economic operators, encouraging joint investment and establishing joint ventures and information networks through existing horizontal programs;
- (d) facilitating access to finance, providing information and stimulating [innovation](#).

TITLE II SCIENCE, TECHNOLOGY AND INFORMATION SOCIETY

Article 36

Cooperation on science and technology

1. The aims of cooperation on science and technology, carried out in the mutual interest of both Parties and in compliance with their policies, particularly as regards the rules for use of intellectual property resulting from research, shall be:

- (a) policy dialogue and exchanges of scientific and technological information and experience at regional level, particularly in respect of policies and programmes;
- (b) promotion of lasting relations between the two Parties' scientific communities; and
- (c) intensification of activities to promote linkage, [innovation](#) and technology transfer between European and Chilean partners.

TITLE V SOCIAL COOPERATION

(...) Article 44

Social cooperation

(...) 4. The Parties shall give priority to measures aimed at:

- (a) promoting human development, the reduction of poverty and the fight against social exclusion, by generating [innovative](#) and reproducible projects involving vulnerable and marginalised social sectors. Special attention shall be paid to low-income families and disabled persons;

Article 52

Cooperation within the Association relationship

1. Cooperation between the Parties should contribute to achieving the general objectives of Part III by identifying and developing [innovative](#) cooperation

programmes capable of providing added value to their new relationship as associated partners.

PART III
COOPERATION

Article 16
General objectives

1. The Parties shall establish close cooperation aimed inter alia at:
(c) stimulating productive synergies, creating new opportunities for trade and investment and promoting competitiveness and [innovation](#); (...)"

12. EU – Lebanon RTA (in force since 01 Mar. 2003):

“TITLE V
ECONOMIC AND SECTOR COOPERATION
Article 44
Scientific, technical and technological cooperation

The aim of cooperation shall be to:

(...) (c) stimulate technological [innovation](#) and the transfer of new technology and dissemination of know-how;

Article 46
Industrial cooperation

The aim of cooperation shall be to:

(...) (d) enhance Lebanon’s human resources and industrial potential through better use of policy in the fields of [innovation](#) and research and technological development;

(...) (f) encourage the development of SMEs, particularly by:

(...) — enhance human resources to encourage [innovation](#), and setting up projects and economic activities.”

13. China – Hong Kong RTA (in force since 29 Jun. 2003):

“CHAPTER 4
TRADE IN SERVICES

(...) Article 13
Financial Cooperation

The two sides shall adopt the following measures to further strengthen cooperation in the areas of banking, securities and insurance:

(...) 6. The Mainland shall allow qualified Mainland securities companies which belong to the pilot [innovation](#) type to set up subsidiaries in Hong Kong in accordance with the relevant requirements.

(...)”

14. Australia – Singapore RTA (in force since 28 Jul. 2003):

“15 EDUCATION COOPERATION
ARTICLE 3

Facilitation of Cooperation

Both Parties shall encourage and facilitate, as appropriate, the development of contacts and cooperation between their respective government agencies, educational institutions, organisations, and other entities and the conclusion of arrangements between such bodies to cooperate in the above fields. These may be achieved through:

(...) (j) collaboration on the development of quality assured [innovative](#) resources to support learning and assessment, and the professional development of teachers and trainers in training and vocational education; and (...)"

15. China – Macao RTA - Supplement VII to the Arrangement (17 Oct. 2003):

“II. Trade and Investment Facilitation

(1) To support and align with moderate diversification of Macao’s industrial structure, the two sides agree to add cooperation in cultural industry, environmental industry as well as [innovation](#) and technology industry as supplementary components of Industrial Cooperation in the area of Trade and Investment Facilitation under “CEPA”, to further improve cooperation in the convention and exhibition industry, and add in Article 9 of Annex 6 of “CEPA” the following content: (...)

3. Cooperation in [Innovation](#) and Technology Industry

Cooperation in [innovation](#) and technology plays an important role in promoting the economic and social development of the two places. The two sides agree to strengthen cooperation in [innovation](#) and technology and support the joint development of the [innovation](#) and technology industry of both places.

3.1 Cooperation mechanism

Through the cooperation mechanism between relevant government departments of both sides, the cooperation in the area of [innovation](#) and technology of the two sides will be strengthened.

3.2 Content of Cooperation

The two sides agree to strengthen cooperation in the following areas:

3.2.1 Strengthen exchanges and sharing of information between the two places in the area of [innovation](#) and technology.

3.2.2 Progressively incorporate Macao research institutes and enterprises in the national [innovation](#) system and encourage Macao research personnel and organizations to participate in national science and technology projects.

3.2.3 Strengthen exchanges and cooperation between the two places in the area of high technology research, development and application, fundamental scientific research, etc. with a view to exploring market expansion.

3.3 Participation of other entities

The two sides agree to support and assist semi-official organizations, non-official organizations and the trade to play a role in promoting cooperation in the [innovation](#) and technology industry between the two places.”

16. EU – Egypt RTA (in force since 01 Jun. 2004):

“Article 43

Scientific and technological cooperation

Cooperation shall have the objective of:

(..) (c) stimulating technological [innovation](#), transfer of new technologies, and dissemination of know-how.

Article 45

Industrial cooperation

Cooperation shall promote and encourage in particular:

(...) — technology transfer, [innovation](#) and R&D,”

17. United States – Australia RTA (in force since 01 Jan. 2005):

“ANNEX 2-C PHARMACEUTICALS

(...)

4. REGULATORY COOPERATION

The Parties shall seek to advance the existing dialogue between the Australian Therapeutic Goods Administration and the U.S. Food and Drug Administration with a view to making [innovative](#) medical products more quickly available to their nationals.”

18. India – Singapore RTA (in force since 01 Aug. 2005):

“CHAPTER 14 MEDIA
ARTICLE 14.1: CO-OPERATION

The Parties, recognising both the potential of the media, such as print, film and broadcasting, as a means for promoting understanding between the Parties and the rapid development of [innovative](#) media services, shall promote co-operation in this area between the Parties.”

19. EU – Algeria RTA (in force since 01 Sep. 2005):

“TITLE V
ECONOMIC COOPERATION
(...) Article 51

Scientific, technical and technological cooperation
Cooperation shall be aimed at:

(...) (c) stimulating technological [innovation](#), the transfer of new technologies and know-how, implementation of technological research and development projects and optimisation of the results of scientific and technical research; (...)

Article 53

Industrial cooperation

Cooperation shall be aimed at:

(...) (f) making the most of Algeria’s human resources and industrial potential through better use of policy in the fields of [innovation](#) and research and technological development;”

20. Korea – Singapore RTA (in force since 02 Mar. 2006):

“CHAPTER 18 CO-OPERATION
(...) ARTICLE 18.5: FINANCIAL SERVICES
Regulatory Co-operation

1. The Parties shall promote regulatory co-operation in the field of financial services, with a view to:

(...) (c) maintaining an environment that does not stifle legitimate financial market [innovations](#); and (...)”

21. Trans-Pacific Strategic Economic Partnership²⁰² (in force since 28 May 2006):

“CHAPTER 16 STRATEGIC PARTNERSHIP
(...) Article 16.2: Objectives

(...) 2. The Parties will establish close cooperation aimed inter alia at:

(a) strengthening and building on existing cooperative relationships among the Parties, including a focus on [innovation](#), research and development;
(...)

Article 16.3: Scope

3. Cooperation among the Parties should contribute to achieving the objectives of the Trans-Pacific Strategic Economic Partnership Agreement through the identification and development of [innovative](#) cooperation programmes capable of providing added value to their relationships.

Article 16.5: Cooperation in Research, Science and Technology

(...) 2. In pursuit of the objectives in Paragraph 1, the Parties will encourage and facilitate, as appropriate, the following activities, including, but not limited to:

(...) (d) promotion of public/private sector partnerships in the support of the development of [innovative](#) products and services; and

²⁰² According to the WTO RTAs Database, this agreement is comprised by the following parties: Brunei Darussalam; Chile; New Zealand; Singapore.

Article 16.6: Education

(...) 3. Cooperation in education can focus on:

(...) (f) collaboration on the development of **innovative** quality assurance resources to support learning and assessment, and the professional development of teachers and trainers in training and vocational education; and (...)"

22. Panama – Singapore RTA (in force since 24 Jul. 2006):

“CHAPTER 16 STRATEGIC PARTNERSHIP

Article 16.1: Objectives

1. The Parties agree to establish a framework for cooperation themselves to expand and enhance the benefits of this Agreement.

2. The Parties shall establish close cooperation aimed inter alia at:

(a) strengthening and building on existing cooperative relationships, including a focus on **innovation**, research and development;

(b) creating new opportunities for trade and investment; and

(c) promote and foster technical and scientific cooperation in areas of mutual interest.

Article 16.2: Scope

(...) 3. Such cooperation should contribute to achieving the objectives of this Agreement through the identification and development of **innovative** with cooperation programmes capable of providing relationships.”

23. Chile – China RTA (Goods: in force since 01 Oct. 2006; Services: in force since 01 Aug. 2010):

“Chapter XIII Cooperation

Article 104 General Objectives

1. The Parties shall establish close cooperation aimed inter alia at:

(...) (b) stimulating productive synergies, creating new opportunities for trade and investment and promoting competitiveness and **innovation**;

Article 106 - Research, Science and Technology

2. In pursuit of the objectives in Article 104, the Parties will encourage and facilitate, as appropriate, the following activities including, but not limited to:

(...) (d) promoting public/private sector partnerships in support of the development of **innovative** products and services and study joint efforts to enter into new markets.

Article 107 - Education

(...) 3. Cooperation in education can focus on:

(...) (f) collaboration on the development of **innovative** quality assurance resources to support learning and assessment, and the professional development of teachers and trainers in training.

Article 113 - Mining and Industrial Cooperation

3. In pursuit of the objectives in Article 104, the Parties will encourage and facilitate, as appropriate, the following activities including, but not limited to:

(...) (e) promotion of public/private sector partnerships and joint ventures in the support of the development of innovative products and services specially related to productivity in the sector activities;

(f) technology transfer in the areas mentioned in paragraph 2; and

(g) designing of **innovation** technology models based in public/private cooperation and association ventures.

Article 109 - Small and Medium-Sized Enterprises

4. Co-operation shall include, among other subjects:

(...) (d) defining technological transference: programs oriented to transfer technological **innovation** to SMEs and to improve their productivity;

Article 111 - Intellectual Property Rights

1. The aim of cooperation on intellectual property rights will be:

(...) (b) to promote economic and social development, particularly in the new digital economy, technological [innovation](#) as well as the transfer and dissemination of technology to the mutual advantage of technology producers and users, and to encourage the development of social economic well-being, and trade;

(...)

2. The Parties will cooperate, on mutually agreed terms and subject to the availability of appropriated funds, by means of:

(a) educational and dissemination projects on the use of intellectual property as a research and [innovation](#) tool;”

24. El Salvador - Honduras - Chinese Taipei RTA (in force since 01 mar. 2008):

“CHAPTER 17: COOPERATION

Article 17.05 Commercial and Industrial Cooperation

(...) 2. Such cooperation shall focus particularly on the following:

(...) (c) support the education and training of human resources on international trade, quality, productivity, [innovation](#), and technological development; and free trade zones management; and

Article 17.07 Cooperation in the Matter of Exportable Offer

(...)

2. The Parties will also create cooperation programs in exportable offer and on potential export capabilities, taking into account:

(...) (b) support projects and/or programs to strengthen [innovation](#), competitiveness, and development of the productive sectors, exporters, and those with potential export capabilities; and

Article 17.11 Cooperation in the Matter of Agriculture, Forestry, Aquaculture, and Fishing

(...) 3. For the purposes of this Article, the Parties will make efforts in the following areas, but not limited thereto:

(...) (c) cooperation to support the process of technological [innovation](#), subsectorial competitiveness, productivity, and the exchange of alternative agricultural technologies;

Article 17.12 Cooperation in the Matter of Quality, Productivity, [Innovation](#), and Technological Development

Each Party shall promote the cooperation to improve the institutional capacities and the competitiveness of the micro, small-and-medium enterprises in the fields of quality, productivity, [innovation](#), and technological development, considering, but not limited to, the following topics:

- (a) technological strengthening for testing laboratories and industrial metrology;
- (b) assistance for updating academic curricula of technical careers (middle level education, technical education, and higher education);
- (c) support with internships related to the fields of quality and productivity, technological [innovation](#), and development, for private enterprises, academic and public sector employees; and
- (d) strengthen the capacities of human resources of the public sector, in fields related to quality, productivity, [innovation](#), and technological development.”

25. New Zealand – China RTA (in force since 01 Oct. 2008):

“Article 164 Cooperation and Capacity Building

(...) 2. Each Party shall:

(...) (c) on mutually acceptable terms and subject to available funds, cooperate on:

(i) appropriate initiatives to promote awareness of intellectual property rights and systems;

- (ii) educational and information dissemination projects on the use of intellectual property as a research and [innovation](#) tool; and
- (iii) training and specialization courses for public servants on intellectual property rights.”

26. EU – CARIFORUM States²⁰³ RTA (in force since 29 Dec. 2008):

“PART I
TRADE PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT
(...) Article 8

Cooperation priorities

1. Development cooperation as provided for in Article 7 shall be primarily focused on the following areas as further articulated in the individual Chapters of this Agreement:
(...) (vi) The development of CARIFORUM [innovation](#) systems, including the development of technological capacity;

CHAPTER 5
Agriculture and fisheries

(...) Article 43

Cooperation

(...) 2. Subject to the provisions of Article 7, the Parties agree to cooperate, including by facilitating support, in the following areas:

(a) Improvement in the competitiveness of potentially viable production, including downstream processing, through [innovation](#), training, promotion of linkages and other support activities, in agricultural and fisheries products, including both traditional and non traditional export sectors;

CHAPTER 2
[Innovation](#) and intellectual property

(...) Section 1

[Innovation](#)

(...) Article 135

Cooperation in the area of competitiveness and [innovation](#)

1. The Parties recognise that the promotion of creativity and [innovation](#) is essential for the development of entrepreneurship and competitiveness and the achievement of the overall objectives of this Agreement.

2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:

(a) promotion of [innovation](#), diversification, modernisation, development and product and process quality in businesses;

(...)

(f) promotion of partnerships for research and development activities in the CARIFORUM States in order to improve their [innovation](#) systems; and

(g) intensification of activities to promote linkages, [innovation](#) and technology transfer between CARIFORUM and European Community partners.

Article 136

Cooperation on science and technology

1. The Parties will foster the participation of their research and technological development bodies in the cooperation activities in compliance with their internal rules. Cooperative activities may take the following forms:

(...) (j) participation in the Knowledge and [Innovation](#) Communities of the European Institute of [Innovation](#) and Technology.

Article 137

Cooperation on information society and information and communication technologies

²⁰³ According to the WTO RTAs Database, the CARIFORUM States at that point of time were: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

1. The Parties recognise that information and communications technologies (ICT) are key sectors in a modern society and are of vital importance to foster creativity, innovation and competitiveness, as well as the smooth transition to the information society.

Article 138

Cooperation on eco-innovation and renewable energy

1. With a view to achieving sustainable development and in order to help maximise any positive and prevent any negative environmental impacts resulting from this Agreement, the Parties recognise the importance of fostering forms of innovation that benefit the environment in all sectors of their economy. Such forms of eco-innovation include energy efficiency and renewable sources of energy.

2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (c) promotion of eco-innovation networks and clusters, including through public-private partnerships;

(...)

PART I

TRADE PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

(...) Article 8

Cooperation priorities

1. Development cooperation as provided for in Article 7 shall be primarily focused on the following areas as further articulated in the individual Chapters of this Agreement:

(...) (vi) The development of CARIFORUM innovation systems, including the development of technological capacity; (...)

CHAPTER 5

Agriculture and fisheries

(...)

Article 43

Cooperation

(...) 2. Subject to the provisions of Article 7, the Parties agree to cooperate, including by facilitating support, in the following areas:

(a) Improvement in the competitiveness of potentially viable production, including downstream processing, through innovation, training, promotion of linkages and other support activities, in agricultural and fisheries products, including both traditional and non traditional export sectors;”

27. China – Singapore RTA (in force since 01 Jan. 2009):

“CHAPTER 11 ECONOMIC COOPERATION

ARTICLE 4

Participation in China’s Regional Development

(...) 3. Recognising that the China-Singapore (Chongqing) Demonstration Initiative on Strategic Connectivity is the key priority demonstration project under China’s Belt and Road Initiative, Western Region Development and Yangtze River Economic Belt strategies, both Parties agree to work closely in four priority areas of collaboration, viz. financial services, aviation, transport and logistics, and information and communications technology, in order to enhance connectivity and drive the development of Western China. The Parties also agree to accord the Initiative with necessary innovative measures, including but not limited to policy and institutional innovations, which shall be consistent with China’s Comprehensive Deepening of Reforms.”

28. Chile – Australia RTA (in force since 09 Mar. 2009):

“Chapter 18 - Cooperation

(...) Article 18.1:

General Objectives

(...) 2. The Parties will establish close cooperation aimed inter alia at:
(a) strengthening and building on existing cooperative relationships;
(b) creating new opportunities for trade and investment, and for promoting competitiveness, fostering innovation and encouraging research and development;
(c) supporting the role of the private sector in promoting and building strategic alliances to encourage mutual economic growth and development; and
(d) increasing the level of and further developing cooperation activities between the Parties in areas of mutual interest.

Article 18.2:

Scope

1. Cooperation between the Parties should contribute to achieving the objectives of this Agreement through the identification and development of innovative cooperation initiatives capable of providing added value to the bilateral relationship.

Article 18.3:

Innovation, Research and Development

Cooperation in innovation, research and development will be focused on cooperative activities in sectors where mutual and complementary interests exist. Among other activities, the Parties will encourage the exchange of experts and information. Where appropriate, they will also promote partnerships in the support of the development of innovative products and services and activities to promote linkage, innovation and technology exchange.”

29. Chile – Colombia RTA (in force since 08 May 2009):

“Capítulo 17 Laboral

(...) Artículo 17.3: Cooperación Laboral

1. Las Partes reconocen la importancia de la cooperación bilateral para fortalecer las acciones en materia laboral. En este sentido, las Partes convienen en desarrollar actividades en las áreas de cooperación enumeradas en el listado siguiente, el cual no tiene carácter excluyente:

(...) (k) promoción de la innovación tecnológica; (...)

Capítulo 19 Cooperación

Artículo 19.1: Objetivos

Las Partes acuerdan ampliar y profundizar el Convenio Básico de Cooperación, conforme a los siguientes objetivos adicionales del mismo:

- (a) adecuando el marco para la cooperación como un instrumento para expandir y mejorar los beneficios de este Acuerdo;
- (b) fortaleciendo y desarrollando las relaciones de cooperación existentes entre las Partes, incluyendo la focalización hacia la innovación, la investigación y el desarrollo, especialmente cuando ellas otorguen valor agregado a las relaciones establecidas en este Acuerdo;
- (c) creando nuevas oportunidades para el comercio y la inversión, promoviendo la competitividad e innovación e incluyendo la participación de los sectores público, privado y académico;
- (d) apoyando el rol del sector privado en la promoción y construcción de alianzas estratégicas con el fin de impulsar el crecimiento económico y el desarrollo mutuo, especialmente en relación a las pequeñas y medianas empresas; y
- (e) fortaleciendo la capacidad comercial de las Partes, entendiendo por tal al conjunto de actividades orientadas a construir capacidad institucional, física y humana, para beneficiarse más ampliamente del intercambio comercial mundial, con especial énfasis en la cooperación económica, y en investigación, ciencia, innovación y tecnología.

Artículo 19.2: Ámbito de aplicación

1. Para contribuir a la consecución de los objetivos y principios del presente Acuerdo, las Partes reafirman la importancia de todas las formas de cooperación, con especial énfasis en la cooperación:

- (a) económica;
 - (b) [innovación](#), investigación y desarrollo; y (c) energética.
2. Las Partes contribuirán al logro de los objetivos del Acuerdo, a través de la identificación y desarrollo de actividades, proyectos y programas [innovadores](#) de cooperación, capaces de darle un valor agregado a sus relaciones.
3. La cooperación entre las Partes especificada en este Capítulo complementa la cooperación y las actividades de cooperación definidas en otros Capítulos de este Acuerdo y en el Convenio Básico de Cooperación.

Artículo 19.4: Cooperación en [Innovación](#), Investigación y Desarrollo

1. Los objetivos de la cooperación en los ámbitos de la [innovación](#), investigación y desarrollo, con especial referencia a la ciencia y tecnología, serán:
- (a) fomentar, cuando sea apropiado, que las agencias gubernamentales, instituciones de investigación, universidades, empresas privadas y otras organizaciones de investigación en los respectivos países establezcan acuerdos directos para desarrollar las actividades de cooperación, programas y proyectos conjuntos dentro del marco del presente Acuerdo; y
 - (b) focalizar las actividades de cooperación hacia sectores donde existan intereses mutuos y complementarios.”

30. Canada – Peru RTA (in force since 01 Aug. 2009):

“Chapter 18 - Trade-Related Cooperation
Article 1801: Objectives

1. Recognizing that trade-related cooperation is a catalyst for the reforms and investments necessary to foster trade-driven economic growth and adjustment to liberalized trade, the Parties agree to promote trade-related cooperation pursuant to the following objectives:
- (a) to strengthen the capacities of the Parties to maximize the opportunities and benefits deriving from this Agreement;
 - (b) to strengthen and develop cooperation at a bilateral, regional or multilateral level;
 - (c) to foster new opportunities for trade and investment, stimulating competitiveness and encouraging [innovation](#), including dialogue and cooperation among their respective academies of science, governmental organizations, non-governmental organizations, universities, colleges, as well as their science, research and technological centers and institutes, and private sector enterprises and firms in areas of mutual interest relating to science and technology and [innovation](#); and
 - (d) to promote sustainable economic development, with an emphasis on small and medium sized enterprises, in order to contribute to the reduction of poverty through trade.”

31. ASEAN²⁰⁴ - Australia - New Zealand RTA (in force since 01 Jan. 2010):

“CHAPTER 13 INTELLECTUAL PROPERTY
Article 9 Co-operation

- (...) 2. At the request of a Party, any other Party may, to the extent possible and as appropriate, render assistance to the requesting Party in order to enhance the requesting Party’s national framework for the acquisition, protection, enforcement, utilisation and creation of intellectual property, with a view to developing intellectual property systems that foster domestic [innovation](#) in the requesting Party.”

32. Peru – China RTA (in force since 01 Mar. 2010):

“CHAPTER 11 INTELLECTUAL PROPERTY RIGHTS
(...)
Article 148: Cooperation and Capacity Building

²⁰⁴ According to the WTO RTAs Database, the ASEAN in this case was comprised by: Brunei Darussalam; Myanmar; Cambodia; Indonesia; Lao People’s Democratic Republic; Malaysia; Philippines; Singapore; Viet Nam; Thailand.

(...) 2. Without prejudice to the obligations of the Agreement mentioned in paragraph 1 of this Article, the Parties will cooperate, on mutually agreed terms and subject to the availability of appropriated funds, on educational and dissemination projects on the use of intellectual property rights as an [innovation](#) tool.

3. The Parties will cooperate, on mutually agreed terms, to exchange information regarding:

(a) conservation and sustainable use of biological biodiversity;

(b) actions to prevent the illegal access to genetic resources, traditional knowledge, [innovation](#) and practices;

(c) internal procedures regarding sharing equitable benefits arising from the use of genetic resources, traditional knowledge, [innovations](#) and practices; and

(d) other intellectual property rights issues.

CHAPTER 12 COOPERATION

Article 149: Objectives

(...)

2. The objectives of this Chapter are to facilitate the establishment of close cooperation aimed, inter alia, at:

(...) (d) stimulating productive synergies, creating new opportunities for trade and investment and promoting competitiveness and [innovation](#);

Article 152: Research, Science and Technology Cooperation

2. The Parties will encourage and facilitate, as appropriate, the following activities including, but not limited to:

(...) (f) promoting public/private sector partnerships in support of the development of [innovative](#) products and services and study joint efforts to enter into new markets.

Article 154: Education

(...) 3. The Parties shall encourage cooperation in education focusing on: (...)

(f) development of [innovative](#) quality assurance resources;

Article 155: Small and Medium-Sized Enterprises

(...) 2. Cooperation shall include, among other subjects:

(...) (e) defining technological transference: programs oriented to transfer technological [innovation](#) to SME and to improve their productivity;

Article 157: Mining and Industrial Cooperation

3. The Parties will encourage and facilitate, as appropriate, the following activities including, but not limited to:

(...) (e) promotion of public/private sector partnerships and joint ventures in the support of the development of [innovative](#) products and services specially related to productivity in the sector activities;

(f) technology transfer in the areas mentioned in paragraph 2;

(g) designing of [innovation](#) technology models based in public/private cooperation and association ventures; and (...)

Article 164: Agricultural Cooperation

The aims of the cooperation on agriculture will be:

(...) (a) to promote sustainable rural development through the exchange of experience, generation of partnership and execution of projects in areas of mutual interest such as: agricultural [innovation](#) and technology transfer for the development of small farming, the conservation and management of the water resource for agricultural use, the application of good agricultural and agro industrial practices, including gender approach in development policies and strategies, among others;”

33. Türkiye – Chile RTA (in force since 01 Mar. 2011):

“COOPERATION

ARTICLE 37 Cooperation

(...) 2. Cooperation between the Parties should contribute to achieving the objectives of this Agreement through the identification and development of [innovative](#) cooperation initiatives capable of providing added value to the bilateral relationship.

3. Without prejudice to the provisions of the “Agreement on Trade and Economic, Technical and Scientific Cooperation between the Government of the Republic of Turkey and the Government of the Republic of Chile”, areas of cooperation may include but should not be limited to [innovation](#), research and development, agriculture, food production and processing, air transport, mining, energy, environment, small and medium size enterprises, tourism, gender issues, education, labor and employment matters, human capital development and cultural collaboration.
(...)

5. The Parties will establish close cooperation aimed inter alia at:

- a) strengthening and building on existing cooperative relationships;
- b) creating new opportunities for trade and investment, and for promoting competitiveness, fostering [innovation](#) and encouraging research and development;
- c) supporting the role of the private sector in promoting and building strategic alliances to encourage mutual economic growth and development; and
- d) increasing the level of and further developing cooperation activities between the Parties in areas of mutual interest.”

34. EFTA²⁰⁵ – Colombia RTA (in force since 01 Jul. 2011):

“CHAPTER 10 CO-OPERATION

ARTICLE 10.1

Scope and Objectives

(...) 2. The co-operation under this Chapter shall pursue the following objectives:

- (a) strengthening and developing the existing relations with regard to TCB between the Parties;
- (b) enhancing and creating new trade and investment opportunities, fostering competitiveness and [innovation](#); and
- (c) implementing this Agreement and optimising its results, in order to provide an impulse for economic growth and development and to contribute to the reduction of poverty.

ARTICLE 10.2

Methods and Means

(...) 3. The Parties will use, among others, the following instruments for the implementation of this Chapter:

- (...) (b) joint identification, development and implementation of projects and [innovative](#) activities of co-operation, including seminars and workshops; and”

35. EFTA²⁰⁶ – Peru RTA (in force since 01 Jul. 2011):

“CHAPTER 10 CO-OPERATION

ARTICLE 10.1

Scope and Objectives

(...) 2. The co-operation under this Chapter shall pursue the following objectives:

- (...) (b) enhancing and creating new trade and investment opportunities, fostering competitiveness and [innovation](#); and (...)

ARTICLE 10.2

Methods and Means

(...) 3. The Parties will use, among others, the following instruments for the implementation of this Chapter:

- (a) exchange of information and experience;

²⁰⁵ According to the WTO RTAs Database, EFTA is comprised of: Iceland; Liechtenstein; Norway; Switzerland.

²⁰⁶ According to the WTO RTAs Database, EFTA is comprised of: Iceland; Liechtenstein; Norway; Switzerland.

- (b) joint identification, development and implementation of projects and [innovating](#) activities of co-operation, including seminars and workshops; and
- (c) technical and administrative co-operation.”

36. India – Malaysia RTA (in force since 01 Jul. 2011):

“CHAPTER 11 ECONOMIC COOPERATION

Article 11.1 Objectives

(...)

2. The Parties shall establish close cooperation aimed inter alia at:

- (...) (c) creating new opportunities for trade and investment and promoting competitiveness and [innovation](#) including through the involvement, where appropriate, of the private sector;”

37. Costa Rica – China RTA (in force since 01 Aug. 2011):

“Article 117: Cooperation

1. The Parties shall cooperate, on mutually agreed terms and subject to the availability of appropriate funds, in the following activities:

- (a) education and dissemination projects on the use of intellectual property as a research and [innovation](#) tool;
- (b) training and specialization courses for public servants on intellectual property rights and other mechanisms;
- (c) exchange of information regarding conservation and sustainable use of biological diversity;
- (d) exchange of information regarding actions to prevent the illegal access to genetic resources, traditional knowledge, [innovation](#) and practices;
- (e) exchange of information regarding internal procedures for sharing equitable benefits arising from the use of genetic resources, traditional knowledge, [innovations](#) and practices; (...)

Chapter 11

Cooperation, Promotion and Enhancement of Trade Relations

Article 118: General Objective

(...) 2. Without prejudice to the possibility of extending the cooperation efforts to other areas, the Parties shall closely cooperate in areas aimed inter alia at:

- (...) (e) stimulating productive synergies, creating new opportunities for trade and investment, and promoting competitiveness and [innovation](#);
- (f) accomplishing a greater impact in scientific and technological knowledge transfer, research and development, [innovation](#), and entrepreneurship; (...)

Article 119: Small and Medium Enterprises

(...) 2. Cooperation shall include, among others, activities to:

- (...) (e) promote research and development, transfer of technology and [innovation](#);

Article 120: Promotion of [Innovation](#), Science and Technology

1. The Parties recognize the importance of promoting and facilitating cooperation activities in [innovation](#), science and technology aimed at achieving a greater social and economic development, including different stakeholders.

(...) 2. Cooperation shall include, among others, activities to:

- (...) (b) promote the exchange of specialists, researchers and professors with the aim of disseminating technical and scientific know-how and offering services in certain fields of science, technology and [innovation](#);
- (...) (i) promote public/private sector partnerships in order to support the development of [innovative](#) products and services, the study of joint efforts to enter new markets, and the transfer of scientific and technological results into national productive systems;

Article 121: Export Promotion and Attraction of Investments

(...) 2. Cooperation shall include, among others, activities to:

(...) (i) promote the implementation of research and development and technological and [innovation](#) programs, with the objective of increasing the export supply and encouraging investment;

Article 123: Agricultural Cooperation

(...) 2. In order to accomplish these objectives, and in accordance with their domestic laws, regulations and relevant procedures, the Parties shall cooperate, among others, in activities to:

(...) (g) promote partnerships between public, private and academic sectors with the aim of supporting the development of [innovative](#) products and services, especially those related to the enhancement of productivity, competitiveness and the establishment of alliances to take advantage of trade opportunities in different agricultural and livestock production chains;

Article 128: Mechanisms of Cooperation

(...) 5. In order to implement cooperation activities, and in accordance with each Party's capabilities, the Committee may suggest to conduct cooperation through the following means:

(...) (e) promotion of associations and companies of public and/or private sectors, for supporting the development of [innovative](#) products and services;

(f) technology transfer in the areas of mutual interest;

(g) design of models of technologic [innovation](#) based on public and/or private cooperation; and”

38. Canada – Colombia RTA (in force since 15 Aug. 2011):

“Chapter Eighteen - Trade-Related Cooperation

Article 1801: Objectives

Recognizing that trade-related cooperation is a catalyst for the reforms and investments necessary to foster trade-driven economic growth and adjustment to liberalized trade, the Parties agree to promote trade-related cooperation pursuant to the following objectives:

(...) (c) to foster new opportunities for trade and investment, stimulating competitiveness and encouraging [innovation](#), including dialogue and cooperation among their respective academies of science, governmental organizations, non-governmental organizations, universities, colleges, as well as their science, research and technological centers and institutes, and private sector enterprises and firms in areas of mutual interest relating to science and technology and [innovation](#); and”

39. Chile – Malaysia RTA (in force since 25 Feb. 2012):

“CHAPTER 9 - COOPERATION

Article 9.2: General Objectives

The framework for cooperative activities established under this Chapter is aimed inter alia at:

(...) (d) creating new opportunities for trade and investment, fostering [innovation](#) and encouraging research and development;

Article 9.3: Scope

(...) 2. Areas of cooperation may include:

(...) (b) research, development and [innovation](#); (...)

Article 9.4: Research, Development and [Innovation](#)

Cooperation in [innovation](#), research and development will be focused on cooperative activities in sectors where mutual and complementary interests exist. Where appropriate, they will also promote partnerships in the support of the development of [innovative](#) products and services and activities to promote linkage, [innovation](#) and technology exchange.”

40. Peru – Panama RTA (in force since 01 May 2012):

“Capítulo 9 Propiedad Intelectual

(...) Artículo 9.9: Cooperación y Ciencia y Tecnología

1. Las Partes intercambiarán información y material en proyectos de educación y diseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

(...) (c) promover el diálogo y la cooperación con relación a la ciencia, la tecnología, el emprendimiento y la [innovación](#); y

(d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo tecnológico, el emprendimiento y la [innovación](#), así como la importancia de diseminar la información tecnológica y de crear y fortalecer sus capacidades tecnológicas; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la [innovación](#), el emprendimiento, la transferencia y la difusión de tecnología entre las Partes, dirigidos, entre otros, a empresas, universidades, centros de investigación y centros tecnológicos.

4. Las actividades de cooperación en ciencia y tecnología podrán adoptar, entre otras, las siguientes formas:

(a) participación en proyectos conjuntos de educación, investigación, desarrollo tecnológico e [innovación](#); (...)

7. Las Partes podrán realizar las actividades de cooperación respecto de:

(...) (g) promover la asistencia técnica y capacitación para la implementación de la [innovación](#) y transferencia tecnológica en artesanías.

El plan de cooperación específico se elaborará de manera conjunta entre:

(a) la Dirección General de Artesanías Nacionales del Ministerio de Comercio e Industrias, por parte de Panamá; y

(b) la Dirección Nacional de Artesanías del Ministerio de Comercio Exterior y de Turismo, por parte del Perú.

Dichas entidades definirán las actividades del plan de cooperación, el financiamiento y su implementación.

8. Cada Parte designa como entidades de contacto responsables del cumplimiento de los objetivos de este Artículo, y de facilitar el desarrollo de los proyectos de colaboración y cooperación en investigación, [innovación](#) y desarrollo tecnológico, a las siguientes:

(a) en el caso de Panamá, la Secretaría Nacional de Ciencia, Tecnología e [Innovación](#) (SENACYT) y la Autoridad Nacional para la [Innovación](#) Gubernamental (AIG); y

(b) en el caso del Perú, el Consejo Nacional de Ciencia, Tecnología e [Innovación](#) Tecnológica (CONCYTEC),”

41. EU - Eastern and Southern Africa States²⁰⁷ RTA (in force since 14 May 2012):

CHAPTER IV

ECONOMIC AND DEVELOPMENT COOPERATION

TITLE I

General provisions

(...) Article 38

Scope

2. The areas that will be addressed by the cooperation are:

(...) (f) research and development, [innovation](#) and technology transfer;

²⁰⁷ According to the WTO RTAs Database, the Eastern and Southern Africa States abovementioned are: Mauritius; Seychelles; Zimbabwe.

Article 41

Industrial development and competitiveness

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (f) promote and strengthen [innovation](#), diversification and value addition product development and quality.

Article 42

Micro, small and medium-sized enterprises

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (b) technology development and transfer, [innovation](#), information exchange and networks and marketing;

Article 43

Mining and minerals

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (e) transfer of technology, knowledge, [innovation](#) and Research and Development; and

TITLE III

Infrastructure

(...) Article 46

Transport

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (d) technology development and transfer, [innovation](#), information exchange and networks, and marketing;

Article 47

Energy

(...) Areas of cooperation

(...) (h) technology development and transfer, research and development (R&D), [innovation](#), information exchange, development of databases and networks;

Article 48

Information and Communications Technology (ICT)

1. The Parties recognise the importance of cooperation in the development of ICT as a key sector in the modern society to foster competitiveness and [innovation](#), as well as for the smooth transition towards the information society. The objective in this area is to develop the ICT sector and promote its contribution to other socio-economic sectors.

Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (d) technology development, transfer and applications, R&D, [innovation](#), information exchange and networks, and marketing;

TITLE IV

Natural resources and environment

(...) Article 50

Water resources

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:
(...) (f) technology development, transfer and applications, R&D, [innovation](#), information exchange and networks;

Article 51

Environment

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (h) technology development and adaptation, transfer and applications, R&D and [innovation](#).”

42. United States – Colombia RTA (in force since 15 May 2012):

“Chapter Sixteen Intellectual Property Rights

Article 16.12: Promotion of [Innovation](#) and Technological Development

1. The Parties recognize the importance of promoting technological [innovation](#), disseminating technological information, and building technological capacity, including, as appropriate, through collaborative scientific research projects between or among the Parties. Accordingly, the Parties will seek and encourage opportunities for science and technology cooperation and identify areas for such cooperation and, as appropriate, engage in collaborative scientific research projects.

2. The Parties shall give priority to collaborations that advance common goals in science, technology, and [innovation](#) and support partnerships between public and private research institutions and industry. Any such collaborative activities or transfer of technology shall be based on mutually agreed terms.

Annex 17.6

Labor Cooperation and Capacity Building Mechanism

(...) 2. Cooperation and Capacity Building Priorities

The Parties’ contact points shall carry out the work of the Mechanism by developing and pursuing bilateral or regional cooperation activities on labor issues, which may include, but need not be limited to:

(...) (h) working conditions: forms of cooperation to increase public awareness and develop [innovative](#) methods for supervising compliance with statutes and regulations pertaining to hours of work, minimum wages, and overtime, and other conditions of work;”

43. El Salvador – Cuba RTA (in force since 01 Aug. 2012):

“Capítulo VII Cooperación Comercial

Artículo 22.

Las Partes reconocen la importancia de la cooperación en ciencia y tecnología, [innovación](#) y transferencia de conocimiento para lograr un mayor desarrollo social y económico. En ese sentido, promoverán la formación de especialistas, el intercambio de información y experiencias sobre investigación científica, la asistencia mutua para el desarrollo tecnológico y la productividad, entre otros; fomentando a su vez, la creación de alianzas estratégicas entre entidades públicas y privadas para la ejecución de estas u otras actividades en aquellos sectores de la economía que las Partes designen de interés.”

44. Malaysia – Australia RTA (in force since 01 Jan. 2013):

“CHAPTER 16

ECONOMIC AND TECHNICAL COOPERATION

(...) Article 16.2

Scope

(...) 4. Cooperation between the Parties under this Chapter should contribute to achieving the objectives of the Agreement, and in particular the objectives in Article

16.1 (Objectives), through the identification and development of [innovative](#) cooperation activities capable of providing added value to the Parties' relationship.”

45. EU – Colombia, Ecuador and Peru RTA (in force since 01 Mar. 2013):

“TITLE XIII

TECHNICAL ASSISTANCE AND TRADE-CAPACITY BUILDING

Article 324

(...) 2. To achieve the objectives referred to in paragraph 1, the Parties agree to attach particular importance to cooperation initiatives aimed at:

(a) improving and creating new trade and investment opportunities, fostering competitiveness and [innovation](#), as well as the modernisation of production, trade facilitation and the transfer of technology; (...)”

46. Canada – Panama RTA (in force since 01 Apr. 2013):

“Chapter nineteen: Trade-related cooperation

Article 19.01: Objectives

Recognizing that trade-related cooperation is a catalyst for the reforms and investments necessary to foster trade-driven economic growth and adjustment to liberalized trade, the Parties agree to promote trade-related cooperation, with the following objectives:

a. strengthening the capacities of the Parties to maximize the opportunities and benefits deriving from this Agreement;

b. strengthening and developing cooperation at a bilateral, regional or multilateral level;

c. fostering, in areas of mutual interest relating to science and technology and [innovation](#), new trade and investment opportunities, thereby stimulating competitiveness and encouraging [innovation](#), including dialogue and cooperation among their respective: academies of science; governmental organizations; non-governmental organizations; universities; colleges; centers and institutes for science, research and technology; and private sector enterprises or firms; and

d. promoting sustainable economic development, with an emphasis on small and medium-sized enterprises.”

47. Costa Rica – Peru RTA (in force since 01 Jun. 2013):

“Capítulo 9 Propiedad Intelectual

(...) Artículo 9.8: Cooperación y Ciencia y Tecnología

1. Las Partes intercambiarán información y material en proyectos de educación y diseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

(a) mejorar y fortalecer los sistemas administrativos de la propiedad intelectual para promover el registro eficiente de los derechos de propiedad intelectual;

(b) estimular la creación y desarrollo de la propiedad intelectual dentro del territorio de las Partes, particularmente de los pequeños inventores y creadores, así como de las micro, pequeñas y medianas empresas;

(c) promover el diálogo y la cooperación con relación a la ciencia, la tecnología, el emprendimiento y la [innovación](#); y

(d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo tecnológico, el emprendimiento y la [innovación](#), así como la importancia de diseminar la información tecnológica y de crear y fortalecer sus capacidades tecnológicas; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la [innovación](#), el emprendimiento, la transferencia y la difusión de tecnología entre las Partes, dirigidos, entre otros, a empresas, universidades, centros de investigación y centros tecnológicos.

4. Las actividades de cooperación en ciencia y tecnología podrán adoptar, entre otras, las siguientes formas:

(a) participación en proyectos conjuntos de educación, investigación, desarrollo tecnológico e [innovación](#); (...)

6. Cada Parte designa como entidades de contacto responsables del cumplimiento de los objetivos de este Artículo, y de facilitar el desarrollo de los proyectos de colaboración y cooperación en investigación, [innovación](#) y desarrollo tecnológico, a las siguientes:

(a) Costa Rica: el Ministerio de Comercio Exterior, en coordinación con el Ministerio de Justicia y Paz y el Ministerio de Ciencia y Tecnología; y

(b) el Perú: el Consejo Nacional de Ciencia, Tecnología e [Innovación](#) Tecnológica (CONCYTEC), o sus sucesores.”

48. Costa Rica – Singapore RTA (01 Jul. 2013):

“Chapter 14

Cooperation, Promotion and Enhancement of Trade Relations

Section A: General Provisions

(...) Article 14.2: Specific Objectives

In this Chapter, priority shall be given to the following objectives:

(...) (e) stimulating productive synergies, creating new opportunities for trade and investment, and promoting competitiveness and [innovation](#);

(f) accomplishing a greater impact in scientific, technological and knowledge transfer, research and development, [innovation](#), and entrepreneurship;

Section B: Cooperation Areas

(...) Article 14.4: Promotion of Science and Technology, [Innovation](#), Technology and Knowledge Transfer, and Entrepreneurship

1. The Parties recognize the importance of the promotion and the facilitation of cooperation activities in science and technology, [innovation](#), technology and knowledge transfer, and entrepreneurship, aiming to achieve a greater social and economic development. The Parties shall also consider the access to and transfer of knowledge and technology between them at national (including different stakeholders such as universities, private sector, and government) and international levels.

(...)

2. The Parties shall encourage and facilitate, as appropriate, the following activities, among others:

(...) (j) promoting public/private sector partnerships in support of the development of [innovative](#) products, processes and services.

(...)

Article 14.5: Export Promotion and Attraction of Investments

(...) 2. Cooperation shall include, among others, activities to:

(...) (g) promote the implementation of research and development, technological and [innovation](#) programs with the objective of increasing the export supply and encouraging investment;”

49. EU – Central America²⁰⁸ RTA (in force since 01 Aug. 2013):

“PART II

POLITICAL DIALOGUE

(...) Article 26

Modalities and Methodology

1. In order to implement cooperation activities, the Parties agree that:

²⁰⁸ According to the WTO RTAs Database, the signatories parties from Central America are: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

(...) (e) they shall promote [innovative](#) cooperation and finance modalities and instruments in order to improve the efficiency of cooperation and to make the best use of this Agreement;

Article 28

Statistics Cooperation

(...) 2. Cooperation in this field shall also aim at:

- (a) the development of a regional statistical system in support of the priorities for regional integration agreed between the Parties;
- (b) cooperating in the field of statistics on science, technology and [innovation](#).

Article 46

Vulnerable Groups

1. The Parties agree that cooperation in favour of vulnerable groups shall give priority to measures, including [innovative](#) policies and projects, involving vulnerable groups. It should aim at promoting human development, reducing poverty, and fighting social exclusion.

TITLE V

ENVIRONMENT, NATURAL DISASTERS AND CLIMATE CHANGE

Article 50

Cooperation on Environment

(...) 4. Cooperation may involve measures such as:

- (b) transfer and use of sustainable technology and know-how, including creation of incentives and mechanisms for [innovation](#) and environmental protection;

Article 55

Cooperation and Technical Assistance on Intellectual Property and Technology Transfer

(...) 3. The Parties also recognise the importance of technical cooperation assistance in the field of technology transfer in order to enhance intellectual property and agree to cooperate among others in the following activities:

- (...) (b) the Parties recognise the importance of creating mechanisms that strengthen and promote Foreign Direct Investment (FDI) in the Republics of the CA Party, especially in [innovative](#) and high-tech sectors. The EU Party shall make its best efforts to offer to the institutions and enterprises in its territories incentives destined to promote and to favour the transfer of technology to institutions and enterprises of the Republics of the CA Party, in such a way that allows these countries to establish a viable technological platform;

Article 58

Cooperation and Technical Assistance on Government

Procurement

The Parties recognise the importance of cooperation and technical assistance in the field of government procurement and agree to cooperate as follows:

- (...) (b) upon request of a Party, provide capacity building and training, including training for the private sector on [innovative](#) means of competitive government procurement;

Article 70

Micro, Small and Medium Enterprises

The Parties agree to promote the competitiveness and insertion of rural and urban MSMEs and their representative organisations, in the international markets, acknowledging their contribution to social cohesion through poverty reduction and job creation, through the provision of non-financial services, training and technical assistance, by executing the following cooperation actions, among others:

(...)

- (i) support to [innovation](#), as well as research and development;

TITLE IX

KNOWLEDGE SOCIETY

(...) Article 76

Scientific and Technological Cooperation

1. Cooperation in this field shall aim to develop scientific, technological, and [innovation](#) capacities covering all the activities under the research framework programmes (FPs). To this end, the Parties shall foster policy dialogue at regional level, exchange of information and the participation of their research and technological development bodies in the following scientific and technological cooperation activities, in compliance with their internal rules:

(...)

(i) assistance to establish National [Innovation](#) Systems (NIS), to develop technology and [innovation](#), in order to facilitate appropriate responses for demand driven by small and medium size business and to promote local production, among others; furthermore, assistance to develop excellence centres and high-tech clusters;”

50. Chile – Viet Nam RTA (in force since 01 Jan. 2014):

“CAPITULO 9 COOPERACIÓN

Artículo 9.1: Objetivos

(...) 2. Las Partes establecerán una estrecha cooperación destinada, entre otras materias, a:

- a. fortalecer y ampliar las existentes relaciones de cooperación entre las Partes;
- b. la creación de nuevas oportunidades para el comercio y las inversiones, la promoción de la competitividad y la [innovación](#), incluida la participación del Estado, del sector empresarial y de la academia;

(...) Artículo 9.2: Ámbito de aplicación

1. Las Partes reafirman la importancia de todas las formas de cooperación, incluyendo pero no limitado a, las áreas listadas en el artículo 9.3.

2. Las áreas de cooperación serán desarrolladas y acordadas por las Partes en documentos formales.

3. La cooperación entre las Partes deberá contribuir al cumplimiento de los objetivos de este Tratado a través de la identificación y desarrollo de programas [innovadores](#) de cooperación, capaces de aportar valor agregado a sus relaciones.

4. Las actividades de cooperación serán acordadas entre las Partes y podrán incluir, pero no limitado a, aquellos listados en el artículo 9.4.

5. La cooperación entre las Partes en este Capítulo complementará la cooperación y actividades de cooperación entre las Partes que figuran en otros Capítulos de este Tratado.

Artículo 9.3: Áreas de cooperación

Las áreas de la cooperación y la creación de capacidades con arreglo a este Capítulo incluirán, entre otras:

- a. el desarrollo económico;
- b. la [innovación](#), la investigación y el desarrollo; (...)”

51. Iceland – China RTA (in force since 01 Jul. 2014):

“CHAPTER 9 CO-OPERATION

Article 93

General Objectives

1. The Parties shall establish close co-operation aimed inter alia at:

- (a) promoting economic and social development;
- (b) stimulating productive synergies, creating new opportunities for trade and investment and promoting competitiveness and [innovation](#); and
- (c) increasing and deepening the collaboration activities between the Parties in areas of mutual interest.”

52. Switzerland – China RTA (in force since 01 Jul. 2014):

“CHAPTER 13

ECONOMIC AND TECHNICAL COOPERATION

ARTICLE 13.1

Scope and Objectives

(...) 2. The cooperation under this Chapter shall pursue the following objectives:

(a) facilitate the implementation of this Agreement with a view to further the well-being of the peoples of the Parties; and

(b) create and enhance sustainable trade and investment opportunities by facilitating trade and investment between the Parties and by strengthening competitiveness and [innovation](#) capacities, with a view to promote sustainable economic growth and development.

ARTICLE 13.3

Areas of Cooperation

(...) Cooperation, as specified in the Work Programme referred to in Article 13.7, may cover any field jointly identified by the Parties that may serve the Parties to benefit from increased trade and investment. Cooperation may include but is not limited to the following areas:

(...) (f) [innovation](#), protection, enforcement, management and use of intellectual property rights.”

53. EU – Ukraine RTA (in force since 23 Aug. 2014):

“CHAPTER 10

Industrial and enterprise policy

(...) Article 379

In order to achieve the objectives set out in Article 378 of this Agreement, the Parties shall cooperate in order to:

(...) (d) encourage the development of [innovation](#) policy, via the exchange of information and good practice regarding the commercialisation of research and development (including support instruments for technology-based business start-ups), cluster development and access to finance;

Article 401

(...) CHAPTER 16

Tourism

(...) Cooperation shall focus on the following aspects:

(a) exchange of information, best practices, experience and "know-how" transfer, including on [innovative](#) technologies;

CHAPTER 17

Agriculture and rural development

(...) Article 404

Cooperation between the Parties in the field of agriculture and rural development shall cover, inter alia, the following areas:

(...) (g) favouring [innovation](#) through research and promoting extension services to agricultural producers;

Section 2

Maritime policy

(...) Article 412

This cooperation shall include:

(a) exchange of information, best practices, experience and maritime "know-how" transfer, including on [innovative](#) technologies in maritime sectors; (...)"

54. EU – Georgia RTA (in force since 01 Sep. 2014):

“CHAPTER 5

Industrial and enterprise policy and mining

(...) Article 314

(...) To these ends, the Parties shall cooperate in order to:

(...) (d) encourage the development of [innovation](#) policy, via the exchange of information and good practices regarding the commercialisation of research and development (including support instruments for technology-based business start-ups, cluster development and access to finance); (...)

Section 2

Maritime Policy

Article 339

(...) Article 339

Taking into account their cooperation in the spheres of fisheries, sea-related transport, environment and other policies, and in accordance with the relevant international agreements on the law of the sea based on United Nations Convention on the Law of the Sea, the Parties shall also develop cooperation on an integrated maritime policy, in particular:

(...) (d) promoting [innovation](#) and resource efficiency in maritime industries as a generator of economic growth and employment, including through the exchange of best practices; (...)

Article 340

This cooperation shall include:

(a) exchange of information, best practices, experience and maritime ‘know-how’ transfer, including on [innovative](#) technologies in maritime sectors and on marine environment issues; (...)

55. EU – Moldova RTA (in force since 01 Sep. 2014):

“CHAPTER 10

Industrial and enterprise policy

(...) Article 63

(...) To those ends, the Parties shall cooperate in order to:

(...) (d) encourage the development of [innovation](#) policy, via the exchange of information and good practice regarding the commercialisation of research and development (including support instruments for technology-based business start-ups), cluster development and access to finance;

Article 87

Cooperation shall aim at preserving, protecting, improving, and rehabilitating the quality of the environment, protecting human health, sustainable utilisation of natural resources and promoting measures at international level to deal with regional or global environmental problems, including in the areas of:

(...) (n) eco-[innovation](#) including best available technologies.

CHAPTER 16

Environment

(...) Article 89

The cooperation shall cover, inter alia, the following objectives:

(a) development of an overall strategy on the environment, covering planned institutional reforms (with timetables) for ensuring implementation and enforcement of environmental legislation; division of competence for the environmental administration at national, regional and municipal levels; procedures for decision making and the implementation of decisions; procedures for the promotion of the integration of the environment into other policy areas; promotion of green economy

measures and eco-[innovation](#), identification of the necessary human and financial resources and a review mechanism; and

(b) development of sector strategies on air quality; water quality and resource management; waste and resource management; biodiversity and nature protection; industrial pollution and industrial hazards and chemicals, noise pollution, soil protection, urban and rural environment, eco-[innovation](#) including clearly defined timetables and milestones for implementation, administrative responsibilities, as well as financing strategies for investments for infrastructure and technology.

CHAPTER 19

Tourism

(...) Article 105

Cooperation shall focus on the following topics:

(a) exchange of information, best practices, experience and ‘know-how’ transfer, including on [innovative](#) technologies; (...)

56. Korea – Australia RTA (in force since 12 Dec. 2014):

“CHAPTER 16

COOPERATION

Section A: Agriculture, Fisheries and Forestry

(...) ARTICLE 16.2: SCOPE

The Parties shall cooperate in areas which may include:

- (a) [innovation](#), research and development;
- (b) agriculture, including primary and processed commodities;
- (c) fisheries and aquaculture;
- (d) forestry;
- (e) sanitary and phytosanitary matters;
- (f) security of food supply; and
- (g) any other areas of cooperation as may be identified and agreed by the Parties.

ARTICLE 16.4: [INNOVATION](#), RESEARCH AND DEVELOPMENT

1. The Parties, recognising the importance of [innovation](#), research and development to agriculture, fisheries and forestry, shall endeavour, as appropriate, to promote cooperative activities in relevant fields. These activities may include scientific and technological developments in:

- (a) sustainable resource management;
- (b) water management and water use efficiency;
- (c) climate change adaptation and mitigation;
- (d) mitigation of climate-related extremes;
- (e) animal husbandry practices including reproductive technologies, nutrition, and livestock identification and traceability systems;
- (f) productivity enhancements in agriculture, fisheries, forestry and food;
- (g) biosecurity, including farm biosecurity;
- (h) animal and plant disease research;
- (i) biotechnology;
- (j) food safety; and
- (k) any other fields of [innovation](#), research and development as may be identified and agreed by the Parties.”

57. Türkiye – Malaysia RTA (in force since 01 Aug. 2015):

“CHAPTER 9

ECONOMIC AND TECHNICAL COOPERATION

Article 9.1

Objectives

(...) 2. The Parties will establish close cooperation, inter alia, at:

(a) promoting and enhancing economic and technical cooperation in accordance with the applicable laws and regulations between them;

- (b) complementing existing and building new cooperative relationships between them;
- (c) advancing human resources development, creating new opportunities for trade and investment, promoting competitiveness and [innovation](#) including the involvement, where appropriate, of their private sectors;
- (d) contributing to the important role of their private sectors in promoting and building strategic alliances to encourage mutual economic growth and development;
- (e) encouraging the presence of each other's goods, services and investments in their respective markets; and
- (f) increasing and deepening the level of cooperation activities between them in areas of mutual interest.

Article 9.2

Scope

(...) 2. The cooperation under the scope of this Agreement shall primarily involve, but not limited to the following areas referred in detail between Articles 9.3 to 9.17 of this Chapter:

- (...) (i) research, development and [innovation](#);

Article 9.5

Cooperation between Small and Medium-Sized Enterprises

With the view to further enhance trade and economic activities, the Parties shall give priority to promoting business and investment opportunities as well as joint ventures between their SMEs. Within this context, the Parties shall, inter alia:

- (...) (d) collaborate in assisting capacity building of high skilled workers and technicians such as in construction and construction related services, [innovation](#), research and development, IT and manufacturing sectors;

Article 9.11

Cooperation in Research, Development and [Innovation](#)

Cooperation in research, development and [innovation](#) will be realized through cooperation activities in sectors where mutual and complementary interests exist.

Where possible, the Parties shall also encourage partnerships to develop [innovative](#) products and services as well as activities to promote linkage, [innovation](#) and technology exchange.”

58. Chile – Thailand RTA (in force since 05 Nov. 2015):

“Chapter 11

Economic Cooperation

Article 11.1: General Objectives

1. The Parties agree to establish a framework for collaborative activities as a means to expand and enhance the benefits of this Agreement for building strategic economic partnership.

2. The Parties will establish close cooperation aimed, inter alia, at:

- (a) strengthening and building on existing cooperative relationships between the Parties, including a focus on promoting economic and social development, fostering [innovation](#) and encouraging research and development;
- (b) creating new opportunities for trade and investment, promoting competitiveness and [innovation](#); (...)

Article 11.2: Scope

(...) 2. Cooperation between the Parties should contribute to achieving the objectives of this Agreement through the identification and development of [innovative](#) cooperation programmes capable of providing added value to their relationships.

Article 11.3: Fields of Cooperation

Fields of cooperation and capacity building under this Chapter may include, among others:

- (a) Trade and Investment Promotion;

(b) Science, [Innovation](#), Research and Development; (...)"

59. Korea – China RTA (in force since 20 Dec. 2015):

“CHAPTER 17

ECONOMIC COOPERATION

Section A: General Provisions

(...) 2. The cooperation under this Chapter shall pursue the following objectives:

(a) facilitating the implementation of this Agreement with a view to promoting economic and social development of the Parties; and

(b) creating and enhancing sustainable trade and investment opportunities by facilitating trade and investment between the Parties and by strengthening competitiveness and [innovation](#) capacities, with a view to promoting sustainable economic growth and development.”

60. Korea – Viet Nam RTA (in force since 20 Dec. 2015):

“CHAPTER 12 INTELLECTUAL PROPERTY

(...) Article 12.10: Cooperation

(...) 2. Upon request of a Party, the other Party will, to the extent possible and as appropriate, render assistance to the requesting Party in creation, acquisition, protection, utilization and enforcement of intellectual property for domestic [innovation](#) and economic development of that Party.”

61. Japan – Mongolia RTA – Implementation Agreement (in force since 07 Jun. 2016):

“Article 5.6

Science and Technology and Intellectual Property

Pursuant to Article 15.2 of the Basic Agreement, in the field referred to in subparagraph (f) of Article 15.1 of the Basic Agreement:

(a) the areas of cooperation may include:

(i) encouraging [innovation](#);

(ii) advanced science and technology;

(iii) utilization of intellectual property rights for [innovation](#) and economic growth;

(iv) capacity building in the field of enforcement of intellectual property rights at the border;

(v) capacity building for organizations for collective management of copyrights and related rights;

(vi) development of human resources with advanced knowledge and skills; and

(vii) other areas as may be agreed by the Parties; and (...)

Article 5.3

Small and Medium Enterprises

Pursuant to Article 15.2 of the Basic Agreement, in the field referred to in subparagraph (c) of Article 15.1 of the Basic Agreement:

(a) the areas of cooperation may include:

(i) promotion of [innovative](#) activities of small and medium enterprises (hereinafter referred to in this Article as “SMEs”), including support for the creation, protection and exploitation of intellectual properties;”

62. Korea – Colombia RTA (in force since 15 Jul. 2016):

“ARTICLE 15.10: TECHNOLOGY TRANSFER AND COOPERATION

Technology Transfer

1. The Parties recognize the importance of technological [innovation](#) as well as transfer of technology and dissemination of scientific and technological information to the mutual advantage of technology producers and users. Accordingly, the Parties will seek to develop and encourage cooperation programs, through collaborations in

science, technology, and [innovation](#). The Parties shall take into account the cooperation issues and activities developed under the Agreement on Scientific and Technical Cooperation between the Parties, signed in 1981, with the purpose of encouraging and strengthening the cooperative activities on research, [innovation](#), and technology transfer. (...)

CHAPTER SEVENTEEN

COOPERATION

ARTICLE 17.1: SCOPE AND OBJECTIVES

(...) 3. To achieve these objectives, the Parties agree to pay particular attention to cooperation initiatives aimed at:

(a) stimulating productive synergies, creating new opportunities for trade and investment, and promoting competitiveness and [innovation](#); (...)"

63. Costa Rica – Colombia RTA (in force since 01 Aug. 2016):

“ARTÍCULO 9.8: COOPERACIÓN Y CIENCIA, TECNOLOGÍA E [INNOVACIÓN](#)

1. Las Partes intercambiarán información y material en proyectos de educación y diseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

(a) mejorar y fortalecer los sistemas administrativos de la propiedad intelectual para promover el registro eficiente de los derechos de propiedad intelectual;

(b) estimular la creación y desarrollo de la propiedad intelectual dentro del territorio de las Partes, particularmente de los pequeños inventores y creadores, así como de las micro, pequeñas y medianas empresas;

(c) promover el diálogo y la cooperación con relación a la ciencia, la tecnología, el emprendimiento y la [innovación](#); y

(d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo tecnológico, el emprendimiento y la [innovación](#), así como la importancia de diseminar la información tecnológica y de crear y fortalecer sus capacidades tecnológicas; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la [innovación](#), el emprendimiento, la transferencia y la difusión de tecnología entre las Partes, dirigidos, entre otros, a empresas, instituciones de educación superior y, centros de investigación y desarrollo tecnológico.

4. Las actividades de cooperación en ciencia, tecnología e [innovación](#) podrán adoptar, entre otras, las siguientes formas:

(a) participación en proyectos conjuntos de educación, investigación, desarrollo tecnológico e [innovación](#); (...)

(e) acciones concertadas para la difusión de los resultados y el intercambio de experiencias en torno a los proyectos conjuntos de ciencia tecnología e [innovación](#) y para la coordinación de los mismos;

6. Cada Parte designa como entidades de contacto, responsables del cumplimiento de los objetivos del presente Artículo, y de facilitar el desarrollo de los proyectos de colaboración y cooperación en investigación, [innovación](#) y desarrollo tecnológico, a las siguientes entidades:

(a) en el caso de Colombia, al Ministerio de Comercio, Industria y Turismo en coordinación con el Departamento Administrativo de Ciencia, Tecnología e [Innovación](#) (COLCIENCIAS); y (...)"

64. EU – SADC²⁰⁹ RTA (in force since 01 Oct. 2016):

“Article 13

Cooperation priorities

(...) 3. Cooperation in supply-side competitiveness shall aim at increasing the competitiveness of the SADC EPA States and remove supply side constraints at national, institutional and, in particular, at company level. This cooperation includes, amongst others, fields such as production, technology development and [innovation](#), marketing, financing, distribution, transport, diversification of economic base, as well as development of the private sector, improvement of the trade and business environment and support to small and medium enterprises in the fields of agriculture, fisheries, industry and services.”

65. Peru – Honduras RTA (in force since 01 Jan. 2017):

“(…) Artículo 9.8: Cooperación, Ciencia y Tecnología

1. Las Partes intercambiarán información y material en proyectos de educación y diseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

(...) (c) promover el diálogo y la cooperación con relación a la ciencia, la tecnología, el emprendimiento y la [innovación](#); y

(d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo tecnológico, el emprendimiento y la [innovación](#), así como la importancia de diseminar la información tecnológica y de crear y fortalecer sus capacidades tecnológicas; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la [innovación](#), el emprendimiento, la transferencia y la difusión de tecnología entre las Partes, dirigidos, entre otros, a empresas, universidades, centros de investigación y centros tecnológicos.

4. Las actividades de cooperación en ciencia y tecnología podrán adoptar, entre otras, las siguientes formas:

(a) participación en proyectos conjuntos de educación, investigación, desarrollo tecnológico e [innovación](#); (...)

6. Cada Parte designa como entidades de contacto responsables del cumplimiento de los objetivos de este Artículo, y de facilitar el desarrollo de los proyectos de colaboración y cooperación en investigación, [innovación](#) y desarrollo tecnológico, a las siguientes:

(a) en el caso de Honduras: la Secretaría de Estado en el Despacho de Desarrollo Económico; y

(b) en el caso del Perú: el Consejo Nacional de Ciencia, Tecnología e [Innovación](#) Tecnológica (CONCYTEC), o sus sucesores.”

66. Canada – Ukraine RTA (in force since 01 Aug. 2017):

“Chapter 11: Intellectual property

Article 11.9: Cooperation on Enforcement of Intellectual Property Rights

(...)

3. The Parties’ respective competent authorities may cooperate, as appropriate, to better identify and target the inspection of shipments suspected of containing certain counterfeit trademark or pirated copyright, and, in doing so, endeavour to:

(a) share information on [innovative](#) approaches that may be developed to provide greater analytical targeting of shipments that could contain counterfeit or pirated goods; and

²⁰⁹ According to the WTO RTAs Database, the signatories of the SADC are: Botswana; Lesotho; Mozambique; Namibia; South Africa; Eswatini.

(b) share information and intelligence regarding shipments of suspected counterfeit trademark or pirated copyright goods in appropriate cases.

Article 11.10: Other Areas of Cooperation

Recognizing the growing importance of intellectual property rights in promoting [innovation](#), social, economic, and cultural development, as well as economic competitiveness in a knowledge based economy, the Parties endeavour to cooperate, subject to availability of resources, in the field of intellectual property in areas of mutual interest.

Chapter 15: Trade-related cooperation

Article 15.1: Trade-Related Cooperation

1. Recognizing that trade-related cooperation is a catalyst for the reforms and investments necessary to foster trade-driven economic growth and adjustment to liberalized trade, the Parties undertake to promote trade-related cooperation, with the following objectives:

- (a) to strengthen the capacities of the Parties to maximize the opportunities and benefits deriving from this Agreement;
- (b) to strengthen and develop cooperation at a bilateral, regional or multilateral level;
- (c) to foster new trade and investment opportunities in areas of mutual interest such as those relating to science, technology and [innovation](#); and
- (d) to promote sustainable economic development, with an emphasis on small and medium-sized enterprises.”

67. EU – Canada RTA (in force since 21 Sep. 2017):

“CHAPTER TWENTY-ONE

Regulatory cooperation

(...) Article 21.2

Principles

4. Without limiting the ability of each Party to carry out its regulatory, legislative and policy activities, the Parties are committed to further develop regulatory cooperation in light of their mutual interest in order to:

- (...) (b) enhance the climate for competitiveness and [innovation](#), including by pursuing regulatory compatibility, recognition of equivalence, and convergence; and
(...)

CHAPTER TWENTY-FIVE

Bilateral dialogues and cooperation

Article 25.1

Objectives and principles

(...) 1. Building upon their well-established partnership and shared values, the Parties agree to facilitate cooperation on issues of common interest, including through:

- (...) d) encouraging enhanced cooperation on science, technology, research and [innovation](#) issues.

(...) Article 25.5

Enhanced cooperation on science, technology, research and [innovation](#)

1. The Parties acknowledge the interdependence of science, technology, research and [innovation](#), and international trade and investment in increasing industrial competitiveness and social and economic prosperity.

2. Building upon this shared understanding, the Parties agree to strengthen their cooperation in the areas of science, technology, research and [innovation](#).

3. The Parties shall endeavour to encourage, develop and facilitate cooperative activities on a reciprocal basis in support of, or supplementary to the Agreement for Scientific and Technological Cooperation between the European Community and Canada, done at Halifax on 17 June 1995. The Parties agree to conduct these activities on the basis of the following principles:

- (a) the activities are of mutual benefit to the Parties;
- (b) the Parties agree on the scope and parameters of the activities; and

(c) the activities should take into account the important role of the private sector and research institutions in the development of science, technology, research and [innovation](#), and the commercialisation of goods and services thereof.

4. The Parties also recognise the importance of enhanced cooperation in science, technology, research and [innovation](#), such as activities initiated, developed or undertaken by a variety of stakeholders, including the Canadian federal government, the Canadian Provinces and Territories, the European Union and its Member States.”

68. El Salvador – Ecuador RTA (in force since 16 Nov. 2017):

“Capítulo IX
Cooperación Comercial
Artículo IX.1: Objetivos

La cooperación que se desarrolle entre las Partes tendrá los siguientes objetivos:
(...) (d) desarrollar las condiciones para generar acciones que impulsen el intercambio de transferencia de tecnología, conocimiento e [innovación](#) entre las Partes;”

69. EU – Armenia RTA (in force since 01 Jun. 2018):

“CHAPTER 3
Environment
(...) Article 48

The cooperation shall cover, inter alia, the following objectives:

(a) the development of a general national environmental strategy for the Republic of Armenia, covering:

(v) the promotion of green economy measures and eco-[innovation](#), the identification of the necessary human and financial resources and a review mechanism; and (...)

CHAPTER 4
Climate action
Article 52

Cooperation shall promote measures at domestic, regional and international level, including with regard to:

(...) (d) research into and the development, demonstration, deployment, transfer and diffusion of new, [innovative](#), safe and sustainable low-carbon and adaptation technologies;

CHAPTER 5
Industrial and enterprise policy
(...) Article 58

The Parties shall cooperate in order to:

(...) (d) encourage the development of [innovation](#) policy, via the exchange of information and good practice regarding the commercialisation of research and development (including support instruments for technology-based business start-ups), cluster development and access to finance.

CHAPTER 9
Tourism
(...) Article 68

The cooperation shall focus on the following topics:

(a) the exchange of information, best practices, experience and know-how, including with regard to [innovative](#) technologies;

CHAPTER 13
Cooperation in research, technological development and [innovation](#)
Article 78

The Parties shall promote cooperation in all areas of civil scientific research, technological development and [innovation](#) on the basis of mutual benefit and subject to appropriate and effective protection of intellectual property rights.

Article 79

Cooperation referred to in Article 78 shall cover:

- (a) policy dialogue and the exchange of scientific and technological information;
- (b) the facilitation of adequate access to the respective programmes of each Party;
- (c) initiatives to increase research capacity and the participation of research entities from the Republic of Armenia in the research framework programme of the European Union;
- (d) the promotion of joint projects for research in all areas of research and **innovation**;
- (e) training activities and mobility programmes for scientists, researchers and other research staff engaged in research and **innovation** activities on both sides;
- (f) the facilitation, within the framework of applicable legislation, of the free movement of research workers participating in the activities covered by this Agreement and the cross-border movement of goods intended for use in such activities; and
- (g) other forms of cooperation in research and **innovation** on the basis of mutual agreement.”

70. CPTPP²¹⁰ (in force since 30 Dec. 2018):

“CHAPTER 18
INTELLECTUAL PROPERTY

(...) Article 18.13: Cooperation Activities and Initiatives

The Parties shall endeavour to cooperate on the subject matter covered by this Chapter, such as through appropriate coordination, training and exchange of information between the respective intellectual property offices of the Parties, or other institutions, as determined by each Party. Cooperation may cover areas such as:

(...) (d) intellectual property issues relevant to:

- (i) small and medium-sized enterprises;
- (ii) science, technology and **innovation** activities; and
- (iii) the generation, transfer and dissemination of technology;
- (e) policies involving the use of intellectual property for research, **innovation** and economic growth; (...).

CHAPTER 19
LABOUR

(...) Article 19.10: Cooperation

(...) 2. In undertaking cooperative activities, the Parties shall be guided by the following principles: (...)

- (c) relevance of capacity and capability-building activities, including technical assistance between the Parties to address labour protection issues and activities to promote **innovative** workplace practices;
- (...)

6. Areas of cooperation may include:(...)

- (c) **innovative** workplace practices to enhance workers’ well-being and business and economic competitiveness; (...)

CHAPTER 21
COOPERATION AND CAPACITY BUILDING

(...) Article 21.2: Areas of Cooperation and Capacity Building

(...) 3. The Parties recognise that technology and **innovation** provides added value to cooperation and capacity building activities, and may be incorporated into cooperation and capacity building activities under this Article.”

71. EU – Japan RTA (in force since 01 Feb. 2019):

²¹⁰ According to the WTO RTAs Database, the signatories of the CPTPP are: Australia; Brunei Darussalam; Canada; Chile; Japan; Malaysia; Mexico; New Zealand; Peru; Singapore; Viet Nam.

“SECTION D

Cooperation and institutional arrangements

ARTICLE 14.52

Cooperation

(...) 2. For the purpose of paragraph 1, cooperation may include exchange of information, sharing of experiences and skills and any other form of cooperation or activities as may be agreed between the Parties. Such cooperation may cover areas such as:

(...) (d) intellectual property issues relevant to:

(i) small and medium-sized enterprises;

(ii) science, technology and [innovation](#) activities; and

(iii) the generation, transfer and dissemination of technology;

(e) policies involving the use of intellectual property for research, [innovation](#) and economic growth;

CHAPTER 19

COOPERATION IN THE FIELD OF AGRICULTURE

(...) ARTICLE 19.2

Scope

(...) 2. The scope of cooperation referred to in paragraph 1 shall cover:

(a) the promotion of trade in agricultural products and foods, including a dialogue on the relevant regulation;

(b) cooperation with a view to improving farm management, productivity and competitiveness, including the exchange of best practices regarding sustainable agriculture, as well as the use of technology and [innovation](#);

72. Chile – Indonesia RTA (in force since 10 Aug. 2019):

“CHAPTER 9

Cooperation

Article 9.2: General objectives

(...) 2. The Parties shall establish close cooperation aimed, inter alia, at:

(a) strengthening and building on existing and new form of cooperative relationships between the Parties, with special emphasis on promoting economic and social development, fostering [innovation](#) and encouraging research development; (...)

Article 9.3: Scope

(...) 2. Cooperation between the Parties should contribute to achieving the objectives of the Agreement through the identification and development of [innovative](#) cooperation programs capable of providing added value to the bilateral relationship.

Article 9.4: Fields of Cooperation

Fields of cooperation under this Chapter shall include:

(...) (b) science, [innovation](#), research and development;

Article 9.11: Research, Development and [Innovation](#)

Cooperation in research, development and [innovation](#) shall focus on cooperative activities in sectors where mutual and complementary interests exist. If appropriate, the Parties shall also promote partnerships in the support of the development of [innovative](#) products and services and activities to promote linkage, [innovation](#) and technology exchange.”

73. EU – Singapore RTA (in force since 21 Nov. 2019):

“SECTION E

COOPERATION

ARTICLE 10.52

Cooperation

1. The Parties agree to cooperate with a view to supporting the implementation of the commitments and obligations undertaken under this Chapter. Areas of cooperation include, but are not limited to, the following activities:

(...) (d) capacity-building and technical cooperation in relation, but not limited, to: management, licensing, valuation and exploitation of intellectual property rights; technology and market intelligence; facilitation of industry collaborations, including on intellectual property rights that may be applied towards environmental conservation or enhancement, which may include establishing a platform or database; and public private partnerships to support culture and [innovation](#);

74. Peru – Australia RTA (in force since 11 Feb. 2020):

“CHAPTER 20

COOPERATION AND CAPACITY BUILDING

Article 20.2: Areas of Cooperation and Capacity Building

2. The public and private sectors may undertake cooperation and capacity building activities in areas of common interest, which may include, but are not limited to, the following areas:

(...) (c) [innovation](#), technology, research and development; (...)

3. The Parties recognise that technology and [innovation](#) provide added value to cooperation and capacity building activities, and may be incorporated into cooperation and capacity building activities under this Article.”

75. United States-Mexico-Canada Agreement (USMCA/CUSMA/T-MEC) (in force since 01 Jul. 2020):

“CHAPTER 23 LABOR

(...) Article 23.12: Cooperation

(...) 5. The Parties may develop cooperative activities in the following areas:

(...) (k) promotion of productivity, [innovation](#), competitiveness, training and human capital development in workplaces, particularly in respect to SMEs;

(...) CHAPTER 28

GOOD REGULATORY PRACTICES

(...) Article 28.17: Encouragement of Regulatory Compatibility and Cooperation

(...) 3. The Parties recognize that a broad range of mechanisms including those set forth in the WTO Agreement, exists to help minimize unnecessary regulatory differences and to facilitate trade or investment, while contributing to each Party’s ability to meet its public policy objectives. These mechanisms may include, as appropriate to the particular circumstances:

(...) (c) whenever appropriate, regulating by specifying performance requirements rather than design characteristics, to promote [innovation](#) and facilitate trade;”

76. EFTA²¹¹ – Ecuador RTA (in force since 01 Nov. 2020):

“ARTICLE 9.3

Fields of Cooperation

1. Cooperation and technical assistance may cover any fields jointly identified by the Parties that may serve to enhance the Parties’ and their economic operators’ capacities to benefit from increased trade and investment arising from this Agreement, including:

(a) promotion and facilitation of exports of goods and services to the other Parties and fostering competitiveness and [innovation](#);

(b) strengthening of institutional capacities in the following areas, in addition to the areas provided in specific provisions of this Chapter:

(i) customs and origin matters;

²¹¹ According to the WTO RTAs Database, EFTA is comprised of: Iceland; Liechtenstein; Norway; Switzerland.

- (ii) encouraging technological [innovation](#) and dissemination of technological information;
 - (iii) facilitation of trade in services, by exchanging information on trade in services and where appropriate qualifications and standards;
 - (iv) promotion of investment and technology flows, by identifying investment opportunities and information channels on investment regulations, exchange of information on measures to promote investment abroad, and furthering of legal environment conducive to increased investment flows;
 - (v) facilitation in the collaboration on and development of intellectual property laws and practices, including training of stakeholders from the public, private sector and civil society, and to promote awareness on intellectual property rights in the general public; and
 - (vi) trade and investment related aspects of sustainable development;
- (c) encouraging and stimulating business contacts, including between enterprises, with the aim of developing long lasting business relationships.”

77. United Kingdom – Cameroon RTA (in force since 01 Jan. 2021):

“ANNEX I

Capacity building and modernisation under the EPA

B. Areas of assistance

The key areas of action that the UK may consider for assistance are set out in the table below:

If the UK is to provide support for any activities listed below, measures set out below must be compatible with the objectives of points 3 and 4.

(...) 3— Industry, diversification and competitiveness of economies in conjunction with regional development

(...) 3.4.2. Harmonisation of research and [innovation](#) policies (universities, public and private research institutes and centres, institutes of technology, vocational schools, etc.)”

78. United Kingdom – CARIFORUM States²¹² RTA (in force since 01 Jan. 2021):

“Article 8

Cooperation priorities

1. Development cooperation as provided for in Article 7 shall be primarily focused on the following areas as further articulated in the individual Chapters of this Agreement:

(...) (vi) The development of CARIFORUM [innovation](#) systems, including the development of technological capacity; (...)

Article 8A

CARIFORUM-UK Technical Sub-Committee on Development Cooperation

(...) 3. Given the specific provisions of this Agreement on development cooperation, and based on the relevant work streams of the CARIFORUM-UK Trade and Development Committee, the TSCDC’s functions in assisting the work of the CARIFORUM-UK Trade and Development Committee are to:

(...) (e) monitor and update the CARIFORUM-UK Trade and Development Committee on:

(...) (v) the status of implementation of provisions related to [innovation](#) and research capabilities; and (...)

Article 43

Cooperation

(...) 2. Subject to the provisions of Article 7, the Parties agree to cooperate, including by facilitating support, in the following areas:

²¹² According to the WTO RTAs Database, the CARIFORUM States in this case are: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Haiti; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

(a) Improvement in the competitiveness of potentially viable production, including downstream processing, through [innovation](#), training, promotion of linkages and other support activities, in agricultural and fisheries products, including both traditional and non traditional export sectors;

Article 43A

CARIFORUM-UK Special Committee on Agriculture and Fisheries

(...) (d) engage in dialogue on matters relating to agriculture and fisheries, including in the following areas:

(...) (v) new technologies, research and [innovation](#) as well as policies and measures related to quality; and (...)"

79. United Kingdom – Eastern and Southern Africa States²¹³ RTA (in force since 01 Jan. 2021):

“ARTICLE 37

Scope

1. The Parties shall set out the development objectives related to the EPA that are specific to the ESA region and needed for the success of regional integration within the areas and sectors highlighted in this Article.

2. The areas that will be addressed by the cooperation are:

(...) (f) research and development, [innovation](#) and technology transfer;

ARTICLE 40

Industrial development and competitiveness

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (f) promote and strengthen [innovation](#), diversification and value addition product development and quality.

(...)

ARTICLE 41

Micro, small and medium-sized enterprises

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(a) capacity building and institutional support;

(b) technology development and transfer, [innovation](#), information exchange and networks and marketing; (...)

ARTICLE 42

Mining and minerals

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (e) transfer of technology, knowledge, [innovation](#) and Research and Development; and

ARTICLE 45

Transport

Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (d) technology development and transfer, [innovation](#), information exchange and networks, and marketing;

ARTICLE 46

²¹³ According to the WTO RTAs Database, the Eastern and Southern Africa States abovementioned are: Mauritius; Seychelles; Zimbabwe.

Energy

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (h) technology development and transfer, research and development (R&D), [innovation](#), information exchange, development of databases and networks;

ARTICLE 47

Information and Communications Technology (ICT)

1. The Parties recognise the importance of cooperation in the development of ICT as a key sector in the modern society to foster competitiveness and [innovation](#), as well as for the smooth transition towards the information society. The objective in this area is to develop the ICT sector and promote its contribution to other socio-economic sectors.

Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (d) technology development, transfer and applications, R&D, [innovation](#), information exchange and networks, and marketing;

ARTICLE 49

Water resources

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (f) technology development, transfer and applications, R&D, [innovation](#), information exchange and networks;

ARTICLE 50

Environment

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (h) technology development and adaptation, transfer and applications, R&D and [innovation](#);"

80. United Kingdom – Georgia RTA (in force since 01 Jan. 2021):

“CHAPTER 5

Industrial and enterprise policy, [innovation](#) and mining

ARTICLE 292

The Parties shall develop and strengthen their cooperation on [innovation](#), industrial and enterprise policy, thereby improving the business environment for all economic operators, but with particular emphasis on small and medium-sized enterprises (SMEs) as they are defined in UK and Georgian legislation respectively. Enhanced cooperation should improve the administrative and regulatory framework for both UK and Georgian businesses operating in the UK and Georgia, taking into account internationally recognised principles and practices in this field.

ARTICLE 293

To these ends, the Parties shall cooperate in order to:

(...) (d) encourage the development of [innovation](#) policy, via the exchange of information and good practices regarding the commercialisation of research and development (including support instruments for technology-based business start-ups, cluster development and access to finance);

CHAPTER 8

Cooperation in the field of information society

(...) ARTICLE 303

Cooperation will cover, inter alia, the following subjects:

(a) exchange of information and best practices on the implementation of national information society initiatives, including, inter alia, those aiming at promoting broadband access, safe internet, improving network security and developing public online services, new technologies and ICT [innovations](#); and

CHAPTER 11

Fisheries and maritime governance

(...) Section 2

Maritime Policy

ARTICLE 315

Taking into account their cooperation in the spheres of fisheries, sea-related transport, environment and other policies, and in accordance with the relevant international agreements on the law of the sea based on the United Nations Convention on the Law of the Sea, the Parties shall also develop cooperation on an integrated maritime policy, in particular:

(...) (d) promoting [innovation](#) and resource efficiency in maritime industries as a generator of economic growth and employment, including through the exchange of best practices;

(...) ARTICLE 316

This cooperation shall include:

(a) exchange of information, best practices, experience and maritime ‘know-how’ transfer, including on [innovative](#) technologies in maritime sectors and on marine environment issues;”

81. United Kingdom – Japan RTA (in force since 01 Jan. 2021):

“ANNEX 8-A

REGULATORY COOPERATION IN FINANCIAL SERVICES

(...) Emerging Issues

15. To support [innovation](#) in the areas of financial services, the Parties shall endeavour to collaborate, share knowledge, experiences and developments in financial services and facilitate the cross-border development of new financial services.”

“CHAPTER 14 INTELLECTUAL PROPERTY

(...) ARTICLE 14.60

Cooperation

1. The Parties, recognising the growing importance of the protection of intellectual property in further promoting trade and investment between them, shall cooperate on intellectual property, including by exchange information on relations of a Party with third countries on matters concerning intellectual property, in accordance with their respective laws and regulations and subject to their available resources.

2. For the purposes of paragraph 1, cooperation may include exchange of information, sharing of experiences and skills and any other form of cooperation or activities as may be agreed between the Parties. Such cooperation may cover areas such as:

(a) developments in domestic and international intellectual property policy;

(b) intellectual property administration and registration systems;

(c) education and awareness relating to intellectual property;

(d) intellectual property issues relevant to:

(i) small and medium-sized enterprises;

(ii) science, technology and [innovation](#) activities; and

(iii) the generation, transfer and dissemination of technology;

(e) policies involving the use of intellectual property for research, [innovation](#) and economic growth;

(f) the implementation of multilateral intellectual property agreements, such as those concluded or administered under the auspices of the WIPO; (...).”

“ARTICLE 19.2

Scope

1. The Parties shall cooperate in the areas referred to in Article 19.1 in accordance with their respective laws and regulations. The Parties shall encourage and facilitate cooperation among relevant groups, entities, competent authorities and other organisations of the Parties.

2. The scope of cooperation referred to in paragraph 1 shall cover:

(a) the promotion of trade in agricultural products and foods, including a dialogue on the relevant laws and regulations;

(b) cooperation with a view to improving farm management, productivity and competitiveness, including the exchange of best practices regarding sustainable agriculture, as well as the use of technology and [innovation](#); (...)"

82. United Kingdom – Kenya RTA (in force since 01 Jan. 2021):

“ARTICLE 79

Transport

(...) 3. The Parties agree to cooperate in the following areas:

(...) (d) technology development and transfer, [innovation](#), information exchange and networks, and marketing;

ARTICLE 80

Energy

(...) 3. The Parties agree to cooperate in the following areas:

(...) (g) technology development and transfer, Research and Development, [innovation](#), information exchange, development of databases and networks; and

ARTICLE 81

Information and Communications Technologies (ICT)

1. Cooperation in the ICT sector shall include: the development of ICT, competitiveness, [innovation](#), as well as the smooth transition towards the information society.

(...) 3. The Parties agree to cooperate in the following areas:

(d) technology development, transfer and applications, R&D, [innovation](#), information exchange and networks, and marketing;

(l) Technical Support Services

i. strengthening of [innovation](#) and transfer of technology, knowledge, R&D; (...)

ARTICLE 86

Enterprise Development

The Parties agree to cooperate on enterprise development within the EAC Partner State(s) through supporting:

(...) (g) protection of [innovations](#) from piracy; and

TITLE V

WATER AND ENVIRONMENT

ARTICLE 91

Water Resources

3. The Parties agree to cooperate in the following areas:

(...) (f) promotion of technology development, transfer and applications, R&D, [innovation](#), information exchange and networks;

ARTICLE 92

Environment

(...) 2. The objectives of cooperation in this area are to:

(...) (c) promote technology development, transfer and application, research and development, [innovation](#) and information exchange.

(...) 3. The Parties agree to cooperate in the following areas:

(f) promotion of technology development and adaptation, transfer and applications, R&D, and [innovation](#);"

83. United Kingdom – Moldova RTA (in force since 01 Jan. 2021):

“CHAPTER 10
INDUSTRIAL AND ENTERPRISE POLICY
(...) ARTICLE 59

To those ends, the Parties shall cooperate in order to:

(...) (d) encourage the development of [innovation](#) policy, via the exchange of information and good practice regarding the commercialisation of research and development (including support instruments for technology-based business start-ups), cluster development and access to finance;

CHAPTER 16
ENVIRONMENT
(...) ARTICLE 79

Cooperation shall aim at preserving, protecting, improving, and rehabilitating the quality of the environment, protecting human health, sustainable utilisation of natural resources and promoting measures at the international level to deal with regional or global environmental problems, including in the areas of:

(...) (n) eco-[innovation](#) including best available technologies.

(...) ARTICLE 81

The cooperation shall cover, as appropriate, the following objectives:

(a) effective implementation of environment policies, including procedures for the promotion of the integration of the environment into other policy areas; and promotion of green economy measures and eco-[innovation](#); and

(b) issues related to air quality; water quality and resource management; waste and resource management; biodiversity and nature protection; industrial pollution and industrial hazards and chemicals, noise pollution, soil protection, urban and rural environment, eco-[innovation](#) in line with timetables and milestones to which both Parties are committed through international agreements.

CHAPTER 19
TOURISM
(...) ARTICLE 94

Cooperation shall focus on the following topics:

(a) exchange of information, best practices, experience and ‘know-how’ transfer, including on [innovative](#) technologies;"

84. United Kingdom – SACU²¹⁴ and Mozambique RTA (entered into force on 29 Jan. 2021):

“ARTICLE 13
Cooperation priorities
(...)

3. Cooperation in supply-side competitiveness shall aim at increasing the competitiveness of the SACU Member States and Mozambique and remove supply side constraints at national, institutional and, in particular, at company level. This cooperation includes, amongst others, fields such as production, technology development and [innovation](#), marketing, financing, distribution, transport, diversification of economic base, as well as development of the private sector, improvement of the trade and business environment and support to small and medium enterprises in the fields of agriculture, fisheries, industry and services.”

²¹⁴ According to the WTO RTAs Database, SACU is comprised of: Botswana; Lesotho; Namibia; South Africa; Eswatini.

85. United Kingdom – Ukraine RTA (in force since 01 Jan. 2021):

“CHAPTER 10

INDUSTRIAL AND ENTERPRISE POLICY

(...) ARTICLE 351

To that end, the Parties shall cooperate in order to:

(...) (d) encourage the development of **innovation** policy, via the exchange of information and good practice regarding the commercialisation of research and development (including support instruments for technology-based business start-ups), cluster development and access to finance;

CHAPTER 16

TOURISM

(...) ARTICLE 367

Cooperation will focus, inter alia, on the following aspects:

(a) exchange of information, best practices, experience and "know-how" transfer, including on **innovative** technologies;

CHAPTER 17

AGRICULTURE AND RURAL DEVELOPMENT

(...) ARTICLE 369

Cooperation between the Parties in the field of agriculture and rural development shall cover, inter alia, the following areas:

(g) favouring **innovation** through research and promoting extension services to agricultural producers;”

86. India – United Arab Emirates RTA (entered into force on 22 Sep. 2022):

“CHAPTER 11 INTELLECTUAL PROPERTY

(...) ARTICLE 11.12

Cooperation Activities and Initiatives

The Parties shall endeavour to cooperate on the subject matter covered by this Chapter, such as through appropriate coordination, training and exchange of information between the respective intellectual property offices of the Parties, or other institutions, as determined mutually by the Parties. Cooperation may cover areas such as:

(a) developments in domestic and international intellectual property policy;

(b) intellectual property administration and registration systems;

(c) education and awareness relating to intellectual property;

(d) intellectual property issues relevant to:

(i) small and medium-sized enterprises;

(ii) science, technology and **innovation** activities; and

(iii) the generation, transfer and dissemination of technology;

(e) policies involving the use of intellectual property for research, **innovation** and economic growth;

(f) implementation of multilateral intellectual property agreements, such as those concluded or administered under the auspices of WIPO;

(g) technical assistance for developing countries;

(h) genetic resources, traditional knowledge, and traditional cultural expressions; and

(i) geographical indications.”

5.2.1.4 *In electronic commerce and/or digital trade provisions*

The selected excerpts of the 13 RTAs that mention the keyword “innovation” or its variations in electronic commerce and/or digital trade provisions are transcribed below for ease of reference.

1. Canada – Peru RTA (in force since 01 Aug. 2009):

“Chapter 15 - Electronic Commerce

(...) Article 1502: General Provisions

The Parties recognize the economic growth and opportunities provided by electronic commerce and the applicability of WTO rules to electronic commerce.

Considering the potential of electronic commerce as a social and economic development tool, the Parties recognize the importance of:

clarity, transparency and predictability in their domestic regulatory frameworks in facilitating, to the maximum extent possible, the development of electronic commerce;

interoperability, [innovation](#) and competition in facilitating electronic commerce;

ensuring that global and domestic electronic commerce policy takes into account the interest of all stakeholders, including business, consumers, non-government organizations and relevant public institutions; and

facilitating the use of electronic commerce of micro, small and medium sized enterprises.

Each Party shall endeavour to adopt measures to facilitate trade conducted by electronic means by addressing issues relevant to the electronic environment.

The Parties recognize the importance of avoiding unnecessary barriers to trade conducted by electronic means. Having regard to its national policy objectives, each Party shall endeavour to guard against measures that:

unduly hinder trade conducted by electronic means; or,

have the effect of treating trade conducted by electronic means more restrictively than trade conducted by other means.”

2. New Zealand – Hong Kong RTA (in force since 01 Jan. 2011):

“Article 2 Promotion of E-Commerce

1. The Parties agree to:

(...) (g) protect intellectual property rights in a way that is supportive of the application of E-commerce and business [innovation](#); and

(h) ensure that their regulatory regimes support the free flow of services, including the development of [innovative](#) ways of developing services, using electronic means.”

3. Canada – Colombia RTA (in force since 15 Aug. 2011):

“Chapter Fifteen - Electronic Commerce

(...) Article 1502: General Provisions

(...) 2. Considering the potential of electronic commerce as a social and economic development tool, the Parties recognize the importance of:

(...) (c) interoperability, [innovation](#) and competition in facilitating electronic commerce;”

4. Canada – Panama RTA (in force since 01 Apr. 2013):

“Chapter fifteen: Electronic commerce

(...) Article 15.03: General Provisions

(...) Considering the potential of electronic commerce as a social and economic development tool, the Parties recognize the importance of:

a. clarity, transparency and predictability in their domestic regulatory frameworks in facilitating, to the maximum extent possible, the development of electronic commerce;

b. encouraging self-regulation by the private sector to promote trust and confidence in electronic commerce, having regard to the interests of users, through initiatives such as industry guidelines, model contracts and codes of conduct;

c. interoperability, [innovation](#) and competition in facilitating electronic commerce;

(...)”

5. New Zealand – Chinese Taipei RTA (in force since 01 Dec. 2013):

“Article 2 Promotion of E-Commerce

1. The Parties agree to:

(...) (d) work to build consumer and business confidence in support of the wider utilisation of e-commerce between the Parties and globally by:

(i) maintaining privacy protection laws and consumer laws relating to e-commerce;

(ii) maintaining measures to minimise unsolicited commercial electronic messages; and

(iii) ensuring the protection of intellectual property rights, while also enabling the application of e-commerce and business [innovation](#).”

6. Canada – Honduras RTA (in force since 01 Oct. 2014):

“Chapter Sixteen: Electronic Commerce

(...) Article 16.2: General Provisions

1. The Parties recognize the economic growth and opportunities provided by electronic commerce and recognize that WTO rules apply to electronic commerce to the extent that they affect electronic commerce.

2. Considering the potential of electronic commerce as a social and economic development tool, the Parties recognize the importance of:

(a) clarity, transparency, and predictability in their domestic regulatory frameworks in facilitating, to the maximum extent possible, the development of electronic commerce;

(b) encouraging self-regulation by the private sector to promote trust and confidence in electronic commerce;

(c) facilitating electronic commerce through interoperability, [innovation](#), and competition;

(d) facilitating the use of electronic commerce by micro-, small-, and medium- sized enterprises; and

(e) protecting personal information in the on-line environment.”

7. Canada – Korea RTA (in force since 01 Jan. 2015):

“Chapter Thirteen: Electronic Commerce

(...) Article 13.2: General Provisions

(...) 2. Considering the potential of electronic commerce as a social and economic development tool, the Parties recognise the importance of:

(a) clarity, transparency, and predictability in their domestic regulatory frameworks in facilitating, to the maximum extent possible, the development of electronic commerce;

(b) encouraging self-regulation by the private sector to promote trust and confidence in electronic commerce, having regard to the interests of users, through initiatives such as industry guidelines, model contracts, and codes of conduct;

(c) facilitating electronic commerce through interoperability, [innovation](#), and competition;

(d) ensuring that global and domestic electronic commerce policy takes into account the interest of all stakeholders, including business, consumers, non-government organisations, and relevant public institutions; and

(e) facilitating the use of electronic commerce of small- and medium-sized enterprises and developing countries.”

8. Mexico – Panama RTA (in force since 01 Jul. 2015):

“CAPÍTULO 14

COMERCIO ELECTRÓNICO

(...) Artículo 14.3: Disposiciones Generales

(...) 2. Considerando el potencial del comercio electrónico como un instrumento de desarrollo social y económico, las Partes reconocen la importancia de:

(...) c) la compatibilidad tecnológica, la [innovación](#) y la competencia para facilitar el comercio electrónico;”

9. Pacific Alliance²¹⁵ RTA – Additional Protocol (in force since 01 May 2016):

“CAPÍTULO 13
COMERCIO ELECTRÓNICO
(...) ARTÍCULO 13.3: Disposiciones Generales
(...) 2. Considerando el potencial del comercio electrónico como un instrumento de desarrollo social y económico, las Partes reconocen la importancia de:
(...) (c) la interoperabilidad, la [innovación](#) y la competencia para facilitar el comercio electrónico;”

10. Costa Rica – Colombia RTA (in force since 01 Aug. 2016):

“CAPÍTULO 16
COMERCIO ELECTRÓNICO
(...) ARTÍCULO 16.2: DISPOSICIONES GENERALES
(...) 2. Considerando el potencial del comercio electrónico como un instrumento de desarrollo social y económico, las Partes reconocen la importancia de:
(...) (c) la interoperabilidad, la [innovación](#) y la competencia para facilitar el comercio electrónico; y”

11. EU – Canada RTA (in force since 21 Sep. 2017):

“CHAPTER SIXTEEN
Electronic commerce
(...)
Article 16.5
General provisions
Considering the potential of electronic commerce as a social and economic development tool, the Parties recognise the importance of:
(...) (b) interoperability, [innovation](#) and competition in facilitating electronic commerce; and (...).”

12. United States-Mexico-Canada Agreement (USMCA/CUSMA/T-MEC) (in force since 01 Jul. 2020):

“CHAPTER 19 DIGITAL TRADE
Article 19.18: Open Government Data
1. The Parties recognize that facilitating public access to and use of government information fosters economic and social development, competitiveness, and [innovation](#).”

13. India – United Arab Emirates RTA (entered into force in 22 Sep. 2022):

“CHAPTER 9 DIGITAL TRADE
Article 9.12 Open data
The Parties recognise that facilitating public access to and use of open data contributes to stimulating economic and social welfare, competitiveness, productivity improvements and [innovation](#). Each Party shall endeavour to ensure that such open data is allowed to be searched, retrieved, used, reused, and redistributed freely by the public, to the maximum extent possible, subject to its laws and regulations.
2. The Parties shall endeavour to cooperate to identify ways in which each Party can expand access to, and use of open data, with a view to enhancing and generating business, and research opportunities.

²¹⁵ According to the WTO RTAs Database, the signatories to the Pacific Alliance RTA are: Chile; Colombia; Mexico; Peru.

ARTICLE 9.17

Digital and Electronic Payments

Recognising the rapid growth of digital and electronic payments, in particular those provided by non-bank, non-financial institutions and financial technology enterprises, the Parties shall endeavour to support the development of efficient, safe and secure cross-border digital and electronic payments by:

- (a) promoting interoperability and the interlinking of digital electronic payment infrastructures;
- (b) encouraging [innovation](#) and competition in digital and electronic payments services;
- (c) facilitate the use of open platforms and architectures such as tools and protocols provided for through Application Programming interfaces (APIs) and encourage payment service providers to safely and securely make APIs for their products and services available to third parties, where possible, to facilitate greater interoperability, [innovation](#) and competition in electronic payments; and
- (d) facilitate [innovation](#) and competition and the introduction of new financial and electronic payment products and services in a timely manner, such as through adopting regulatory and industry sandboxes.”

5.2.1.5 *In environmental provisions*

The selected excerpts of the 25 RTAs that mention the keyword “innovation” or its variations in environmental provisions are transcribed below for ease of reference.

1. United States – Chile RTA (in force since 01 Jan. 2004):

“Chapter Nineteen Environment

(...) Article 19.3: Environment Affairs Council

(...) 2. In order to share [innovative](#) approaches for addressing environmental issues of interest to the public, the Council shall ensure a process for promoting public participation in its work, including by seeking advice from the public in developing agendas for Council meetings and by engaging in a dialogue with the public on those issues.”

2. United States – Morocco RTA (in force since 01 Jan. 2006):

“CHAPTER SEVENTEEN ENVIRONMENT

ARTICLE 17.6: OPPORTUNITIES FOR PUBLIC PARTICIPATION

1. Recognizing that opportunities for public participation can facilitate the sharing of best practices and the development of [innovative](#) approaches to issues of interest to the public, each Party shall ensure that procedures exist for dialogue with its public concerning the implementation of this Chapter, including opportunities for its public to:

- (a) suggest matters to be discussed at the meetings of the Joint Committee or, if a subcommittee on environmental affairs has been established pursuant to Article 19.2 (Joint Committee), meetings of the subcommittee; and
- (b) provide, on an ongoing basis, views, recommendations, or advice on matters related to the implementation of this Chapter. Each Party shall make these views, recommendations, or advice available to the other Party and the public.”

3. Dominican Republic - Central America²¹⁶ - United States Free Trade Agreement (CAFTA-DR) (in force since 01 Mar. 2006):

“Chapter Seventeen Environment

(...) Article 17.5: Environmental Affairs Council

(...) 4. In order to share **innovative** approaches for addressing environmental issues of interest to the public, the Council shall ensure a process for promoting public participation in its work, including by engaging in a dialogue with the public on those issues.”

4. United States – Bahrain RTA (in force since 01 Aug. 2006):

“CHAPTER SIXTEEN ENVIRONMENT

(...) ARTICLE 16.6: OPPORTUNITIES FOR PUBLIC PARTICIPATION

1. Recognizing that opportunities for public participation can facilitate the sharing of best practices and the development of **innovative** approaches to issues of interest to the public, each Party shall develop or maintain procedures for dialogue with its public concerning the implementation of this Chapter, including opportunities for its public to:

(a) suggest matters to be discussed at the meetings of the Joint Committee or, if a Subcommittee on Environmental Affairs has been established pursuant to Article 16.5, meetings of the Subcommittee; and

(b) provide, on an ongoing basis, views, recommendations, or advice on matters related to the implementation of this Chapter. Each Party shall make these views, recommendations, or advice available to the other Party and the public.”

5. EU – CARIFORUM States²¹⁷ RTA (in force since 29 Dec. 2008):

“Article 138

Cooperation on eco-**innovation** and renewable energy

1. With a view to achieving sustainable development and in order to help maximise any positive and prevent any negative environmental impacts resulting from this Agreement, the Parties recognise the importance of fostering forms of **innovation** that benefit the environment in all sectors of their economy. Such forms of eco-**innovation** include energy efficiency and renewable sources of energy.

2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (c) promotion of eco-**innovation** networks and clusters, including through public-private partnerships;”

6. United States – Oman RTA (in force since 01 Jan. 2009):

“CHAPTER SEVENTEEN ENVIRONMENT

(...) ARTICLE 17.6: OPPORTUNITIES FOR PUBLIC PARTICIPATION

1. Recognizing that opportunities for public participation can facilitate the sharing of best practices and the development of **innovative** approaches to issues of interest to the public, each Party shall develop or maintain procedures for dialogue with its public concerning the implementation of this Chapter, including opportunities for its public to: (...)”

²¹⁶ According to the WTO RTAs Database, “Central America” in this specific case refers to: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua.

²¹⁷ According to the WTO RTAs Database, the CARIFORUM States in this case are: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Haiti; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

7. EFTA²¹⁸ – Colombia RTA (in force since 01 Jul. 2011):

“ARTICLE 6.5

Measures Related to Biodiversity

(...) 2. The Parties recognise the importance and the value of their biological diversity and of the associated traditional knowledge, [innovations](#) and practices of indigenous and local communities. Each Party shall determine the access conditions to its genetic resources in accordance with the principles and provisions contained in applicable national and international law.

3. The Parties recognise past, present and future contributions of indigenous and local communities and their knowledge, [innovations](#) and practices to the conservation and sustainable use of biological and genetic resources and in general the contribution of the traditional knowledge of their indigenous and local communities to the culture and economic and social development of nations.

4. The Parties shall consider collaborating in cases regarding non compliance with applicable legal provisions on access to genetic resources and traditional knowledge, [innovations](#) and practices.”

8. EFTA²¹⁹ – Peru RTA (in force since 01 Jul. 2011):

“CHAPTER 6

PROTECTION OF INTELLECTUAL PROPERTY

(...) ARTICLE 6.5

Measures Related to Biodiversity

(...) 2. The Parties recognise the importance and the value of their biological diversity and of the associated traditional knowledge, [innovations](#) and practices of indigenous and local communities. Each Party shall determine the access conditions to its genetic resources in accordance with the principles and provisions contained in applicable national and international law.

3. The Parties recognise past, present and future contributions of indigenous and local communities and their knowledge, [innovations](#) and practices to the conservation and sustainable use of biological and genetic resources and in general the contribution of the traditional knowledge of their indigenous and local communities to the culture and economic and social development of nations.

4. The Parties shall consider collaborating in cases regarding non compliance with the applicable legal provisions on access to genetic resources and traditional knowledge, [innovations](#) and practices.”

9. Korea – United States RTA (in force since 15 Mar. 2012):

“CHAPTER TWENTY ENVIRONMENT

(...) ARTICLE 20.7: OPPORTUNITIES FOR PUBLIC PARTICIPATION

(...) 2. Recognizing that opportunities for public participation can facilitate the sharing of best practices and the development of [innovative](#) approaches to issues of interest to the public, each Party shall:

(a) seek to accommodate requests from persons of either Party for information or to exchange views regarding either Party’s implementation of this Chapter; and

(b) provide for the receipt of written submissions from persons of either Party that concern matters related to the implementation of specific provisions of this Chapter. Each Party shall respond to these submissions in accordance with domestic procedures and make the submissions and its responses easily accessible to the public in a timely manner.”

²¹⁸ According to the WTO RTAs Database, EFTA is comprised of: Iceland; Liechtenstein; Norway; Switzerland.

²¹⁹ According to the WTO RTAs Database, EFTA is comprised of: Iceland; Liechtenstein; Norway; Switzerland.

10. Panama – Peru RTA (in force since 01 May 2012):

“Capítulo 9 Propiedad Intelectual

(...) Artículo 9.6: Medidas Relacionadas con la Protección a la Biodiversidad y los Conocimientos Tradicionales

(...) 2. Las Partes reconocen la importancia y valor de los conocimientos, [innovaciones](#) y prácticas de las comunidades indígenas y locales, así como la contribución pasada, presente y futura de las mismas a la conservación y uso sostenible de los recursos biológicos y genéticos y sus productos derivados, y en general, la contribución de los conocimientos tradicionales de tales comunidades a la cultura y al desarrollo económico y social de las naciones.

3. Cada Parte, de conformidad con su legislación nacional, reitera su compromiso de respetar, preservar y mantener los conocimientos tradicionales, [innovaciones](#) y prácticas de las colectividades indígenas y locales del territorio de cada Parte. (...)”

11. EU – Eastern and Southern Africa States²²⁰ RTA (in force since 14 May 2012):

“TITLE IV

Natural resources and environment

(...) Article 50

Water resources

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (f) technology development, transfer and applications, R&D, [innovation](#), information exchange and networks;

Article 51

Environment

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (h) technology development and adaptation, transfer and applications, R&D and [innovation](#).”

12. United States – Panama RTA (in force since 21 Dec. 2012):

“Chapter Seventeen Environment

(...) Article 17.6: Environmental Affairs Council

(...) 4. In order to share [innovative](#) approaches for addressing environmental issues of interest to the public, the Council shall ensure a process for promoting public participation in its work, including by engaging in a dialogue with the public on those issues.”

13. EU - Colombia, Ecuador and Peru RTA (in force since 01 Mar. 2013):

“CHAPTER 2

Protection of biodiversity and traditional knowledge

Article 201

1. The Parties recognise the importance and value of biological diversity and its components and of the associated traditional knowledge, [innovations](#) and practices of indigenous and local communities (62). The Parties furthermore reaffirm their sovereign rights over their natural resources and recognise their rights and obligations as established by the CBD with respect to access to genetic resources, and to the fair

²²⁰ According to the WTO RTAs Database, the Eastern and Southern Africa States abovementioned are: Mauritius; Seychelles; Zimbabwe.

and equitable sharing of benefits arising out of the utilization of these genetic resources. (...)

3. Subject to their domestic legislation, the Parties shall, in accordance with Article 8(j) of the CBD respect, preserve and maintain knowledge, [innovations](#) and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity, and promote their wider application conditioned to the prior informed consent of the holders of such knowledge, [innovations](#) and practices, and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, [innovations](#) and practices.

(...) 12. In accordance with applicable international and domestic law, the Parties agree to collaborate in the application of domestic frameworks on access to genetic resources and associated traditional knowledge, [innovations](#) and practices. (...)

Article 272

Biological Diversity

(...) 4. The Parties recognize their obligation in accordance with the CBD to, subject to their domestic legislation, respect, preserve and maintain knowledge, [innovations](#) and practices of indigenous and local communities embodying traditional life-styles relevant for the conservation and sustainable use of biological diversity and promote their wider application conditioned to the prior informed consent of the holders of such knowledge, [innovations](#) and practices, and encourage the fair and equitable sharing of the benefits arising from the utilisation of such knowledge, [innovation](#) and practices.

Article 275

Climate Change

(...) 5. The Parties agree to consider actions to contribute to achieving climate change mitigation and adaptation objectives through their trade and investment policies, inter alia by:

(a) facilitating the removal of trade and investment barriers to access to, [innovation](#), development, and deployment of goods, services and technologies that can contribute to mitigation or adaptation, taking into account the circumstances of developing countries;”

14. Costa Rica – Peru RTA (in force since 01 Jun. 2013):

“Capítulo 9 Propiedad Intelectual

(...) Artículo 9.5: Medidas Relacionadas con la Protección a la Biodiversidad y los Conocimientos Tradicionales

(...) 2. Las Partes reconocen la importancia y valor de los conocimientos, [innovaciones](#) y prácticas de las comunidades indígenas y locales², así como la contribución pasada, presente y futura de las mismas a la conservación y uso sostenible de los recursos biológicos y genéticos y sus productos derivados, y en general, la contribución de los conocimientos tradicionales de tales comunidades a la cultura y al desarrollo económico y social de las naciones.

Cada Parte, de conformidad con su legislación nacional, reitera su compromiso de respetar, preservar y mantener los conocimientos tradicionales, [innovaciones](#) y prácticas de las colectividades indígenas y locales de los territorios de las Partes.

(...)

9. Las Partes acuerdan, a solicitud de cualquiera de ellas, colaborar en el suministro de información pública que tengan a su disposición para la investigación y seguimiento del acceso ilegal a recursos genéticos y/o conocimientos, [innovaciones](#) y prácticas tradicionales en sus territorios.”

15. EU – Central America²²¹ RTA (in force since 01 Aug. 2013):

“TITLE V
ENVIRONMENT, NATURAL DISASTERS AND CLIMATE CHANGE
Article 50
Cooperation on Environment
(...) 4. Cooperation may involve measures such as:
(b) transfer and use of sustainable technology and know-how, including creation of incentives and mechanisms for [innovation](#) and environmental protection;”

16. EU – Moldova RTA (in force since 01 Sep. 2014):

“CHAPTER 16
Environment
(...) Article 89
The cooperation shall cover, inter alia, the following objectives:
(a) development of an overall strategy on the environment, covering planned institutional reforms (with timetables) for ensuring implementation and enforcement of environmental legislation; division of competence for the environmental administration at national, regional and municipal levels; procedures for decision making and the implementation of decisions; procedures for the promotion of the integration of the environment into other policy areas; promotion of green economy measures and eco-[innovation](#), identification of the necessary human and financial resources and a review mechanism; and
(b) development of sector strategies on air quality; water quality and resource management; waste and resource management; biodiversity and nature protection; industrial pollution and industrial hazards and chemicals, noise pollution, soil protection, urban and rural environment, eco-[innovation](#) including clearly defined timetables and milestones for implementation, administrative responsibilities, as well as financing strategies for investments for infrastructure and technology.”

17. Korea – Colombia RTA (in force since 15 Jul. 2016):

“ARTICLE 16.5: BIOLOGICAL DIVERSITY
(...) 2. The Parties recognize the value and importance of biological diversity, traditional knowledge as well as the contribution of knowledge, [innovations](#), and practices of indigenous and local communities to the conservation and sustainable use of biological diversity. Recognizing the sovereign rights of States over their natural resources, each Party shall have the authority to determine access to genetic resources in accordance with its legislation and endeavor to create conditions to facilitate transparent access to genetic resources for environmentally sound uses.
3. Subject to their legislations and the CBD, the Parties respect knowledge, [innovations](#), and practices of indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity and promote their wider application with the involvement and approval of the holders of such knowledge, [innovations](#), and practices.”

18. Costa Rica – Colombia RTA (in force since 01 Aug. 2016):

“ARTÍCULO 9.5: MEDIDAS RELACIONADAS CON LA PROTECCIÓN A LA BIODIVERSIDAD Y LOS CONOCIMIENTOS TRADICIONALES
(...) 2. Las Partes reconocen la importancia y valor de los conocimientos, [innovaciones](#) y prácticas de las comunidades indígenas y locales, así como la contribución pasada, presente y futura de las mismas a la conservación y uso sostenible de los recursos biológicos y genéticos y sus productos derivados, y en

²²¹ According to the WTO RTAs Database, the signatories parties from Central America are: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

general, la contribución de los conocimientos tradicionales de tales comunidades a la cultura y al desarrollo económico y social de las naciones. Cada Parte, de conformidad con su legislación, reitera su compromiso de respetar, preservar y mantener los conocimientos tradicionales, [innovaciones](#) y prácticas de las comunidades indígenas y locales de los territorios de las Partes.

(...)

9. Las Partes acuerdan, a solicitud de cualquiera de ellas, colaborar en el suministro de información pública que tengan a su disposición para la investigación y seguimiento del acceso ilegal a recursos genéticos y/o conocimientos, [innovaciones](#) y prácticas tradicionales en sus territorios.”

19. Peru – Honduras RTA (in force since 01 Jan. 2017):

“(…) Capítulo 9

Propiedad Intelectual

(…) Artículo 9.5: Medidas Relacionadas con la Protección a la Biodiversidad y los Conocimientos Tradicionales

(…) 2. Las Partes reconocen la importancia y valor de los conocimientos, [innovaciones](#) y prácticas de las comunidades indígenas y locales, así como la contribución pasada, presente y futura de las mismas a la conservación y uso sostenible de los recursos biológicos y genéticos y sus productos derivados, y en general, la contribución de los conocimientos tradicionales de tales comunidades a la cultura y al desarrollo económico y social de las naciones.

Cada Parte, de conformidad con su legislación nacional, reitera su compromiso de respetar, preservar y mantener los conocimientos tradicionales, [innovaciones](#) y prácticas de las colectividades indígenas y locales de los territorios de las Partes.

(…) 9. Las Partes acuerdan, a solicitud de cualquiera de ellas, colaborar en el suministro de información pública que tengan a su disposición para la investigación y seguimiento del acceso ilegal a recursos genéticos y/o conocimientos, [innovaciones](#) y prácticas tradicionales en sus territorios.”

20. EU – Armenia RTA (in force since 01 Jun. 2018):

“CHAPTER 3

Environment

(…) Article 48

The cooperation shall cover, inter alia, the following objectives:

(a) the development of a general national environmental strategy for the Republic of Armenia, covering:

(v) the promotion of green economy measures and eco-[innovation](#), the identification of the necessary human and financial resources and a review mechanism; and (...)

CHAPTER 4

Climate action

Article 52

Cooperation shall promote measures at domestic, regional and international level, including with regard to:

(…) (d) research into and the development, demonstration, deployment, transfer and diffusion of new, [innovative](#), safe and sustainable low-carbon and adaptation technologies;”

21. Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)²²² (in force since 30 Dec. 2018):

“CHAPTER 20

ENVIRONMENT

²²² According to the WTO RTAs Database, the parties to the CPTPP are: Australia; Brunei Darussalam; Canada; Chile; Japan; Malaysia; Mexico; New Zealand; Peru; Singapore; Viet Nam.

(...) Article 20.11: Voluntary Mechanisms to Enhance Environmental Performance

(...) 3. Further, if private sector entities or non-governmental organisations develop voluntary mechanisms for the promotion of products based on their environmental qualities, each Party should encourage those entities and organisations to develop voluntary mechanisms that, among other things:

(...) (c) promote competition and [innovation](#); and (...)"

22. United States-Mexico-Canada Agreement (USMCA/CUSMA/T-MEC) (in force since 01 Jul. 2020):

“CHAPTER 24 ENVIRONMENT

(...) Article 24.14: Voluntary Mechanisms to Enhance Environmental Performance

3. Further, if private sector entities or non-governmental organizations develop voluntary mechanisms for the promotion of products based on their environmental qualities, each Party should encourage those entities and organizations to develop voluntary mechanisms that, among other things:

(...) (c) promote competition and [innovation](#); and”

23. United Kingdom - Eastern and Southern Africa States²²³ RTA (in force since 01 Jan. 2021):

“ARTICLE 49

Water resources

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (f) technology development, transfer and applications, R&D, [innovation](#), information exchange and networks;

ARTICLE 50

Environment

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (h) technology development and adaptation, transfer and applications, R&D and [innovation](#).”

24. United Kingdom - Kenya RTA (in force since 01 Jan. 2021):

“TITLE V

WATER AND ENVIRONMENT

ARTICLE 91

Water Resources

3. The Parties agree to cooperate in the following areas:

(...) (f) promotion of technology development, transfer and applications, R&D, [innovation](#), information exchange and networks;

ARTICLE 92

Environment

(...) 2. The objectives of cooperation in this area are to:

(...) (c) promote technology development, transfer and application, research and development, [innovation](#) and information exchange.

(...) 3. The Parties agree to cooperate in the following areas:

(f) promotion of technology development and adaptation, transfer and applications, R&D, and [innovation](#).”

²²³ According to the WTO RTAs Database, the signatories to this RTA are: Mauritius; Seychelles; Zimbabwe.

25. United Kingdom - Moldova RTA (in force since 01 Jan. 2021):

“CHAPTER 16
ENVIRONMENT
(...) ARTICLE 79

Cooperation shall aim at preserving, protecting, improving, and rehabilitating the quality of the environment, protecting human health, sustainable utilisation of natural resources and promoting measures at the international level to deal with regional or global environmental problems, including in the areas of:

(...) (n) eco-[innovation](#) including best available technologies.

(...) ARTICLE 81

The cooperation shall cover, as appropriate, the following objectives:

(a) effective implementation of environment policies, including procedures for the promotion of the integration of the environment into other policy areas; and promotion of green economy measures and eco-[innovation](#); and

(b) issues related to air quality; water quality and resource management; waste and resource management; biodiversity and nature protection; industrial pollution and industrial hazards and chemicals, noise pollution, soil protection, urban and rural environment, eco-[innovation](#) in line with timetables and milestones to which both Parties are committed through international agreements.”

5.2.1.6 In provisions on development or sustainable development

The selected excerpts of the RTAs that mentioned “innovation” or its variations in provisions on development or sustainable development are transcribed below for ease of reference.

1. EU – CARIFORUM States²²⁴ RTA (in force since 29 Dec. 2008):

“PART I
TRADE PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT
(...) Article 8

Cooperation priorities

1. Development cooperation as provided for in Article 7 shall be primarily focused on the following areas as further articulated in the individual Chapters of this Agreement:

(...) (vi) The development of CARIFORUM [innovation](#) systems, including the development of technological capacity;”

2. Australia – Chile RTA (in force since 09 Mar. 2009):

“Article 18.3:

[Innovation](#), Research and Development

Cooperation in [innovation](#), research and development will be focused on cooperative activities in sectors where mutual and complementary interests exist. Among other activities, the Parties will encourage the exchange of experts and information. Where appropriate, they will also promote partnerships in the support of the development of [innovative](#) products and services and activities to promote linkage, [innovation](#) and technology exchange.”

²²⁴ According to the WTO RTAs Database, the CARIFORUM States in this case are: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Haiti; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

3. Chile – Colombia RTA (in force since 08 May 2009):

“Artículo 19.4: Cooperación en [Innovación](#), Investigación y Desarrollo

1. Los objetivos de la cooperación en los ámbitos de la [innovación](#), investigación y desarrollo, con especial referencia a la ciencia y tecnología, serán:

(a) fomentar, cuando sea apropiado, que las agencias gubernamentales, instituciones de investigación, universidades, empresas privadas y otras organizaciones de investigación en los respectivos países establezcan acuerdos directos para desarrollar las actividades de cooperación, programas y proyectos conjuntos dentro del marco del presente Acuerdo; y

(b) focalizar las actividades de cooperación hacia sectores donde existan intereses mutuos y complementarios.”

4. EFTA²²⁵ – Serbia RTA (in force since 01 Oct. 2010):

“CHAPTER 6 TRADE AND SUSTAINABLE DEVELOPMENT

(...) ARTICLE 38

Promotion of Trade and Investment Favouring Sustainable Development

1. The Parties shall strive to facilitate and promote foreign investment, as well as trade in and dissemination of goods and services beneficial to the environment, including through addressing related non-tariff barriers. This may further include the fostering of sound environmental technology, research, development and [innovation](#) in support of green economy, sustainable renewable energy, energy efficient and eco-labelled goods and services.”

5. EU – Korea RTA (in force since 01 Jul. 2011):

“CHAPTER THIRTEEN

TRADE AND SUSTAINABLE DEVELOPMENT

(...) Article 13.6

Trade favouring sustainable development

1. The Parties reconfirm that trade should promote sustainable development in all its dimensions. The Parties recognise the beneficial role that core labour standards and decent work can have on economic efficiency, [innovation](#) and productivity, and they highlight the value of greater policy coherence between trade policies, on the one hand, and employment and labour policies on the other.”

6. Chile – Malaysia RTA (in force since 25 Feb. 2012):

“CHAPTER 9 - COOPERATION

(...)

Article 9.4: Research, Development and [Innovation](#)

Cooperation in [innovation](#), research and development will be focused on cooperative activities in sectors where mutual and complementary interests exist. Where appropriate, they will also promote partnerships in the support of the development of [innovative](#) products and services and activities to promote linkage, [innovation](#) and technology exchange.”

7. EU - Colombia, Ecuador and Peru RTA (in force since 01 Mar. 2013):

“Article 271

Trade Favouring Sustainable Development

1. The Parties reaffirm that trade should promote sustainable development. The Parties also recognise the beneficial role that core labour standards and decent work can have on economic efficiency, [innovation](#) and productivity, as well as the value

²²⁵ According to the WTO RTAs Database, EFTA is comprised of: Iceland; Liechtenstein; Norway; Switzerland.

of greater coherence between trade policies, on the one hand, and labour policies on the other.”

8. Korea – Türkiye RTA – Framework Agreement (Goods: in force since 01 May 2013; Services: in force since 01 Aug. 2018):

“CHAPTER 5
TRADE AND SUSTAINABLE DEVELOPMENT
ARTICLE 5.6: TRADE FAVOURING SUSTAINABLE DEVELOPMENT
1. The Parties reconfirm that trade should promote sustainable development in all its dimensions. The Parties recognise the beneficial role that core labour standards and decent work can have on economic efficiency, [innovation](#) and productivity, and the Parties highlight the value of greater policy coherence between trade policies, on the one hand, and employment and labour policies on the other.”

9. EU – Central America²²⁶ RTA (in force since 01 Aug. 2013):

“PART II
POLITICAL DIALOGUE
(...)
Article 18
Finance for Development
1. The Parties agree to support international efforts to promote policies and regulations to finance development and to strengthen cooperation in order to achieve internationally agreed development goals, including the Millennium Development Goals, as well as the commitments of the Monterrey Consensus and other related fora.
2. For this purpose, and with the objective to foster more inclusive societies, the Parties recognise the need to develop new and [innovative](#) financial mechanisms.”

10. EU – Ukraine RTA (in force since 23 Aug. 2014):

“CHAPTER 17
Agriculture and rural development
(...) Article 404
Cooperation between the Parties in the field of agriculture and rural development shall cover, inter alia, the following areas:
(...)
(g) favouring [innovation](#) through research and promoting extension services to agricultural producers;”

11. EU – Georgia RTA (in force since 01 Sep. 2014):

“Article 231
Trade and investment promoting sustainable development
The Parties reconfirm their commitment to enhance the contribution of trade to the goal of sustainable development in its economic, social and environmental dimensions. Accordingly:
(a) the Parties recognise the beneficial role that core labour standards and decent work can have on economic efficiency, [innovation](#) and productivity, and they shall seek greater policy coherence between trade policies, on the one hand, and labour policies on the other; (...).”

12. EU – Moldova RTA (in force since 01 Sep. 2014):

“Article 367

²²⁶ According to the WTO RTAs Database, the signatories parties from Central America are: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

Trade and investment promoting sustainable development

The Parties reconfirm their commitment to enhance the contribution of trade to the goal of sustainable development in its economic, social and environmental dimensions. Accordingly, the Parties:

(a) recognise the beneficial role that core labour standards and decent work can have on economic efficiency, [innovation](#) and productivity, and shall seek greater policy coherence between trade policies, on the one hand, and labour policies, on the other; (...)"

13. Türkiye – Malaysia RTA (in force since 01 Aug. 2015):

“Article 9.11

Cooperation in Research, Development and [Innovation](#)

Cooperation in research, development and [innovation](#) will be realized through cooperation activities in sectors where mutual and complementary interests exist.

Where possible, the Parties shall also encourage partnerships to develop [innovative](#) products and services as well as activities to promote linkage, [innovation](#) and technology exchange”.

14. EU – Armenia RTA (in force since 01 Jun. 2018):

“Article 276

Trade and investment favouring sustainable development

The Parties confirm their commitment to enhance the contribution of trade to the goal of sustainable development in its economic, social and environmental dimensions. To that end, the Parties:

(a) recognise the beneficial role that core labour standards and decent work can have on economic efficiency, [innovation](#) and productivity, and shall seek greater policy coherence between trade and labour policies;”

15. Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)²²⁷ (in force since 30 Dec. 2018):

“CHAPTER 23

DEVELOPMENT

(...) Article 23.5: Education, Science and Technology, Research and [Innovation](#)

1. The Parties recognise that the promotion and development of education, science and technology, research and [innovation](#) can play an important role in accelerating growth, enhancing competitiveness, creating jobs, and expanding trade and investment among the Parties.

2. The Parties further recognise that policies related to education, science and technology, research and [innovation](#) can help Parties maximise the benefits derived from this Agreement. Accordingly, Parties may encourage the design of policies in these areas that take into consideration trade and investment opportunities arising from this Agreement, in order to further increase those benefits. Those policies may include initiatives with the private sector, including those aimed at developing relevant expertise and managerial skills, and enhancing enterprises’ ability to transform [innovations](#) into competitive products and start-up businesses.

Article 23.6: Joint Development Activities

(...) 2. When mutually agreed, two or more Parties shall endeavour to facilitate joint activities between relevant government, private and multilateral institutions so that the benefits derived from this Agreement might more effectively advance each Party’s development goals. These joint activities may include:

²²⁷ According to the WTO RTAs Database, the parties to the CPTPP are: Australia; Brunei Darussalam; Canada; Chile; Japan; Malaysia; Mexico; New Zealand; Peru; Singapore; Viet Nam.

(...) (b) consideration of ways to expand engagement in science, technology and research to foster the application of innovative uses of science and technology, promote development and build capacity;”

16. Peru – Australia RTA (in force since 11 Feb. 2020):

“CHAPTER 22

DEVELOPMENT

Article 22.3: Broad-Based Economic Growth

3. The Parties also recognise that generating and sustaining broad-based economic growth requires sustained high-level commitment by their governments to effectively and efficiently administer public institutions, invest in public infrastructure, welfare, health and education systems, and foster science, technology, innovation and entrepreneurship, and access to economic opportunity.

Article 22.5: Education, Science and Technology, Research and Innovation

1. The Parties recognise that the promotion and development of education, science and technology, research and innovation can play an important role in accelerating growth, enhancing competitiveness, creating jobs, and expanding trade and investment among the Parties.

2. The Parties further recognise that policies related to education, science and technology, research and innovation can help the Parties maximise the benefits derived from this Agreement. Accordingly, each Party may encourage the design of policies in these areas that take into consideration trade and investment opportunities arising from this Agreement, in order to further increase those benefits. Those policies may include initiatives with the private sector, including those aimed at developing relevant expertise and managerial skills, and enhancing enterprises’ ability to transform innovations into competitive products and start-up businesses.”

17. EU – Vietnam RTA (in force since 01 Aug. 2020):

“CHAPTER 13

Trade and sustainable development

Article 13.10

Trade and Investment Favouring Sustainable Development

1. Each Party affirms its commitment to enhance the contribution of trade and investment to the goal of sustainable development in its economic, social and environmental dimensions.

2. To that end, the Parties:

(a) recognise the beneficial role that decent work may have for economic efficiency, innovation and productivity, and they shall encourage greater policy coherence between trade policies, on the one hand, and labour policies on the other; (...)

Article 13.11

Scientific Information

When preparing and implementing measures aimed at protecting the environment or labour conditions that may affect trade and investment, each Party shall take into account relevant available scientific, technical and innovation-related information, and relevant international standards, guidelines or recommendations, including the precautionary principle.”

18. United Kingdom – Georgia RTA (in force since 01 Jan. 2021):

“ARTICLE 223

Trade and investment promoting sustainable development

The Parties reconfirm their commitment to enhance the contribution of trade to the goal of sustainable development in its economic, social and environmental dimensions. Accordingly:

(a) the Parties recognise the beneficial role that core labour standards and decent work can have on economic efficiency, innovation and productivity, and they shall seek

greater policy coherence between trade policies, on the one hand, and labour policies on the other;”

19. United Kingdom - Moldova RTA (in force since 01 Jan. 2021):

“ARTICLE 334

Trade and investment promoting sustainable development

The Parties reconfirm their commitment to enhance the contribution of trade to the goal of sustainable development in its economic, social and environmental dimensions. Accordingly, the Parties:

(a) recognise the beneficial role that core labour standards and decent work can have on economic efficiency, [innovation](#) and productivity, and shall seek greater policy coherence between trade policies, on the one hand, and labour policies, on the other;”

20. United Kingdom – Ukraine RTA (in force since 01 Jan. 2021):

“ARTICLE 279

Trade favouring Sustainable Development

1. The Parties reaffirm that trade should promote sustainable development in all its dimensions. The Parties recognise the beneficial role that core labour standards and decent work can have on economic efficiency, [innovation](#) and productivity, and they highlight the value of greater coherence between trade policies, on the one hand, and employment and social policies on the other.”

5.2.1.7 In provisions on trade barriers

The selected excerpts of the RTAs that mentioned the term “innovation” or its variations in provisions on trade barriers are transcribed below for ease of reference.

1. Korea – United States RTA (in force since 15 Mar. 2012):

“CHAPTER NINE TECHNICAL BARRIERS TO TRADE

(...) ARTICLE 9.10: DEFINITIONS

For purposes of this Chapter:

(...) good regulatory practice means a practice that: (i) serves clearly identified policy goals, and is effective in achieving those goals; (ii) has a sound legal and empirical basis; (iii) takes into consideration the distribution of a regulation’s effects across society, taking economic, environmental, and social effects into account; (iv) minimizes costs and market distortions; (v) promotes [innovation](#) through market incentives and goal-based approaches; (vi) is clear, simple, and practical for users; (vii) is consistent with the Party’s other regulations and policies; and (viii) is compatible as far as possible with domestic and international competition, trade, and investment principles.”

2. Singapore – Türkiye RTA (in force since 01 Oct. 2017):

“CHAPTER 5

TECHNICAL BARRIERS TO TRADE

(...) ANNEX 5-A

ELECTRONICS

(...) Article 3

[Innovation](#)

1. No Party shall prevent or unduly delay the placing on its market of a product on the ground that it incorporates a new technology or a new feature which has not yet been regulated.

2. Paragraph 1 shall not prejudice the right of the importing Party, if it demonstrates duly substantiated concerns to the supplier, to require evidence that the new technology or new feature concerned does not create a risk for safety or EMC or any other legitimate objective as listed in Article 2.2 of the TBT Agreement.”

3. Singapore – EU RTA (in force since 21 Nov. 2019):

“ANNEX 4-A
ELECTRONICS
ARTICLE 3

Innovation

1. No Party shall prevent or unduly delay the placing of a product on its market on the grounds that the product incorporates a new technology or a new feature which has not yet been regulated.

2. Paragraph 1 shall not prejudice the right of the importing Party, where it demonstrates duly substantiated concerns to the supplier of a product referred to in paragraph 1, to require evidence that the new technology or new feature concerned does not create a risk for safety or EMC or for any other legitimate objective as listed in Article 2.2 of the TBT Agreement.”

5.2.1.8 In provisions on the medical or pharmaceutical field

The selected excerpts of the RTAs that mention “innovation” in provisions on the medical or pharmaceutical field are transcribed below for ease of reference.

1. United States – Australia RTA (in force since 01 Jan. 2005):

“ANNEX 2-C PHARMACEUTICALS
1. AGREED PRINCIPLES

The Parties are committed to facilitating high quality health care and continued improvements in public health for their nationals. In pursuing these objectives, the Parties are committed to the following principles:

- (a) the important role played by **innovative** pharmaceutical products in delivering high quality health care;
- (b) the importance of research and development in the pharmaceutical industry and of appropriate government support, including through intellectual property protection and other policies;
- (c) the need to promote timely and affordable access to **innovative** pharmaceuticals through transparent, expeditious, and accountable procedures, without impeding a Party’s ability to apply appropriate standards of quality, safety, and efficacy; and
- (d) the need to recognize the value of **innovative** pharmaceuticals through the operation of competitive markets or by adopting or maintaining procedures that appropriately value the objectively demonstrated therapeutic significance of a pharmaceutical.

(...)

4. REGULATORY COOPERATION

The Parties shall seek to advance the existing dialogue between the Australian Therapeutic Goods Administration and the U.S. Food and Drug Administration with a view to making **innovative** medical products more quickly available to their nationals.”

2. EU – Korea RTA (in force since 01 Jul. 2011):

“ANNEX 2-D
PHARMACEUTICAL PRODUCTS AND MEDICAL DEVICES

Article 1

General provisions

Recognising that while there are differences between each Party's health care system, the Parties share a commitment to promoting the development of and facilitating access to high-quality patented and generic pharmaceutical products and medical devices, as a means of continuing to improve the health of their populations. In pursuing these objectives, the Parties confirm their shared principles with respect to the importance of:

(...) (c) appropriate government support of academic and commercial research and development, intellectual property protection and other incentives for **innovation** in the research and development of pharmaceutical products and medical devices;

(d) promotion of **innovation** of, and timely and affordable access to, safe and effective pharmaceutical products and medical devices through transparent and accountable procedures, without impeding a Party's ability to apply high standards of safety, efficacy and quality;

(...)

Article 2

Access to **innovation**

To the extent that health care authorities in a Party operate or maintain procedures for listing pharmaceutical products or medical devices, for indications entitled to reimbursement, or for setting the amount of reimbursement or any measures related to pricing [1] for pharmaceutical products or medical devices under health care programmes they operate, that Party shall:

(a) ensure that the procedures, rules, criteria and implementing guidelines that apply to the listing of pharmaceutical products or medical devices, indications for reimbursement, setting the amount of reimbursement, or any measures related to listing, pricing and/or reimbursement for pharmaceutical products or medical devices are fair, transparent, reasonable and non-discriminatory [2]; and

(b) ensure that the health authorities' determination of pricing and reimbursement for a pharmaceutical product or medical device, once approved by the appropriate regulatory authority as safe, efficacious and of good quality, and if based on public bodies' or quasi-public bodies' involvement, shall:

(i) appropriately recognise the value of the patented pharmaceutical product or medical device in the amount of pricing and reimbursement it provides;

(ii) permit a manufacturer of the pharmaceutical product or medical device to apply, based on scientific evidence of safety, efficacy, quality and benefits, for an increased amount of pricing and reimbursement over those provided for comparator products, if any, used to determine the amount of reimbursement;

(iii) permit a manufacturer of the pharmaceutical product or medical device, after a decision on the pricing/reimbursement is made, to apply for an increased amount of reimbursement for the product based on scientific evidence the manufacturer provides on the product's safety, efficacy, quality and benefits;

(iv) permit a manufacturer of the pharmaceutical product or medical device to apply for the amount of pricing and reimbursement and price adjustment for additional medical indications for the product, based on scientific evidence the manufacturer provides on the product's safety, efficacy, quality and benefits; and

(v) in case a Party adjusts ex officio the amount of pricing/reimbursement of the pharmaceutical products or medical devices for external causes in specific circumstances, including drastic changes in economic indicators, permit a manufacturer of the pharmaceutical product or medical device to submit opinions regarding the adjustment before the adjustment is adopted."

3. Korea – United States RTA (in force since 15 Mar. 2012):

“CHAPTER FIVE

PHARMACEUTICAL PRODUCTS AND MEDICAL DEVICES

ARTICLE 5.1: GENERAL PROVISIONS

The Parties recognize that while there are differences between each Party's health care system, the Parties share a commitment to promoting the development of and

facilitating access to high-quality patented and generic pharmaceutical products and medical devices, as a means of continuing to improve the health of their nationals. In pursuing these objectives, the Parties affirm the importance of:

(...)

(d) appropriate government support of research and development in academic and commercial laboratories, intellectual property protections, and other incentives for **innovation** in the research and development of pharmaceutical products and medical devices;

(e) promoting **innovation** and timely and affordable access to safe and effective pharmaceutical products and medical devices through transparent and accountable procedures, without impeding a Party's ability to apply appropriate standards of quality, safety, and efficacy;

ARTICLE 5.2: ACCESS TO **INNOVATION**

To the extent that health care authorities at a Party's central level of government operate or maintain procedures for listing pharmaceutical products, medical devices, or indications for reimbursement, or setting the amount of reimbursement for pharmaceutical products or medical devices, under health care programs operated by its central level of government, the Party shall:

(a) ensure that the procedures, rules, criteria, and guidelines that apply to the listing of pharmaceutical products, medical devices, or indications for reimbursement, or setting the amount of reimbursement for pharmaceutical products or medical devices are fair, reasonable, and non-discriminatory;

(b) ensure that the Party's determination, if any, of the reimbursement amount for a pharmaceutical product or medical device, once approved by the appropriate regulatory authority as safe and effective, is based on competitive market- derived prices; or if its determination is not based on competitive market- derived prices, then that Party shall:

(...)

(c) permit a manufacturer of the pharmaceutical product or medical device to apply for reimbursement of additional medical indications for the product, based on evidence the manufacturer provides on the product's safety or efficacy.

ARTICLE 5.3: TRANSPARENCY

(...) 5. To the extent that health care authorities at a Party's central level of government operate or maintain procedures for listing pharmaceutical products, medical devices, or indications for reimbursement, or setting the amount of reimbursement for pharmaceutical products or medical devices, under health care programs operated by its central level of government, a Party shall:

(...) (f) make all reimbursement decision-making bodies open to all stakeholders, including **innovative** and generic companies; and (...)"

4. Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)²²⁸ (in force since 30 Dec. 2018):

"ANNEX 26-A

TRANSPARENCY AND PROCEDURAL FAIRNESS FOR PHARMACEUTICAL PRODUCTS AND MEDICAL DEVICES

(...) Article 2: Principles

The Parties are committed to facilitating high-quality health care and continued improvements in public health for their nationals, including patients and the public. In pursuing these objectives, the Parties acknowledge the importance of the following principles:

(...) (b) the importance of research and development, including **innovation** associated with research and development, related to pharmaceutical products and medical devices;"

²²⁸ According to the WTO RTAs Database, the parties to the CTPP are: Australia; Brunei Darussalam; Canada; Chile; Japan; Malaysia; Mexico; New Zealand; Peru; Singapore; Viet Nam.

5. EU – Singapore RTA (in force since 21 Nov. 2019):

“ANNEX 2-C

PHARMACEUTICAL PRODUCTS AND MEDICAL DEVICES

ARTICLE 1

General Provisions

The Parties confirm the following shared objectives and principles of:

(...) (c) promoting [innovation](#) relating to safe and effective pharmaceutical products and medical devices, and promoting timely access to such pharmaceutical products and medical devices, through transparent and accountable procedures, without impeding a Party's ability to apply high standards of safety, efficacy and quality; and (...)”

6. United Kingdom – Korea RTA (in force since 01 Jan. 2021):

“ANNEX 2-D

PHARMACEUTICAL PRODUCTS AND MEDICAL DEVICES

ARTICLE 1

General Provisions

Recognising that while there are differences between each Party's health care system, the Parties share a commitment to promoting the development of and facilitating access to high-quality patented and generic pharmaceutical products and medical devices, as a means of continuing to improve the health of their populations. In pursuing these objectives, the Parties confirm their shared principles with respect to the importance of:

(a) adequate access to pharmaceutical products and medical devices while providing high-quality health care;

(b) sound economic incentives and competitive markets for the efficient development of and access to pharmaceutical products and medical devices;

(c) appropriate government support of academic and commercial research and development, intellectual property protection and other incentives for [innovation](#) in the research and development of pharmaceutical products and medical devices;

(d) promotion of [innovation](#) of, and timely and affordable access to, safe and effective pharmaceutical products and medical devices through transparent and accountable procedures, without impeding a Party's ability to apply high standards of safety, efficacy and quality; (...)

ARTICLE 2

Access to [Innovation](#)

To the extent that health care authorities in a Party operate or maintain procedures for listing pharmaceutical products or medical devices, for indications entitled to reimbursement, or for setting the amount of reimbursement or any measures related to pricing¹

for pharmaceutical products or medical devices under health care programmes they operate, that Party shall:

(a) ensure that the procedures, rules, criteria and implementing guidelines that apply to the listing of pharmaceutical products or medical devices, indications for reimbursement, setting the amount of reimbursement, or any measures related to listing, pricing and/or reimbursement for pharmaceutical products or medical devices are fair, transparent, reasonable and non discriminatory²; and

(b) ensure that the health authorities' determination of pricing and reimbursement for a pharmaceutical product or medical device, once approved by the appropriate regulatory authority as safe, efficacious and of good quality, and if based on public bodies' or quasi public bodies' involvement, shall:

(i) appropriately recognise the value of the patented pharmaceutical product or medical device in the amount of pricing and reimbursement it provides;

(ii) permit a manufacturer of the pharmaceutical product or medical device to apply, based on scientific evidence of safety, efficacy, quality and benefits, for an increased amount of pricing and reimbursement over those provided for comparator products, if any, used to determine the amount of reimbursement;

(iii) permit a manufacturer of the pharmaceutical product or medical device, after a decision on the pricing/reimbursement is made, to apply for an increased amount of reimbursement for the product based on scientific evidence the manufacturer provides on the product's safety, efficacy, quality and benefits;

(iv) permit a manufacturer of the pharmaceutical product or medical device to apply for the amount of pricing and reimbursement and price adjustment for additional medical indications for the product, based on scientific evidence the manufacturer provides on the product's safety, efficacy, quality and benefits; and

(v) in case a Party adjusts ex officio the amount of pricing/reimbursement of the pharmaceutical products or medical devices for external causes in specific circumstances, including drastic changes in economic indicators, permit a manufacturer of the pharmaceutical product or medical device to submit opinions regarding the adjustment before the adjustment is adopted.”

5.2.1.9 *In provisions on SMEs*

The selected excerpts of the RTAs that mention “innovation” or its variations in provisions on SMEs are transcribed below for ease of reference, in chronological order by date of entry into force²²⁹.

1. EU – Palestine RTA (in force since 01 Jul. 1997):

“Article 42

Small and medium-sized enterprises

The objective of cooperation will be the creation of an environment propitious to the development of SMEs on local and export markets through, inter alia:

- promotion of contacts between enterprises, in particular through recourse to the Community 's networks and instruments for the promotion of industrial cooperation and partnership,
- easier access to investment finance,
- information and support services,
- enhancement of human resources with the aim of stimulating [innovation](#) and the setting-up of projects and business ventures.”

2. EU – Chile RTA (Goods: in force since 01 Feb. 2003; Services: in force since 01 Mar. 2005):

“Article 19

Cooperation on small and medium-sized enterprises

(...) 2. Cooperation shall consist, amongst other actions, of:

- (a) technical assistance;
- (b) conferences, seminars, prospecting for industrial and technical opportunities, participation in round tables and general and sectoral fairs;

²²⁹ In those cases in which the date of entry into force of the Goods section was different from the Services one, the date of entry into force of the Goods part was considered for the purposes of organization on chronological order.

- (c) promoting contacts between economic operators, encouraging joint investment and establishing joint ventures and information networks through existing horizontal programs;
- (d) facilitating access to finance, providing information and stimulating [innovation](#).”

3. Chile – China RTA (Goods: in force since 01 Aug. 2006; Services: in force since 01 Aug. 2010):

“Article 109 - Small and Medium-Sized Enterprises
4. Co-operation shall include, among other subjects:
(...) (d) defining technological transference: programs oriented to transfer technological [innovation](#) to SMEs and to improve their productivity;”

4. Peru – China RTA (in force since 01 Mar. 2010):

“Article 155: Small and Medium-Sized Enterprises
(...) 2. Cooperation shall include, among other subjects:
(...) (e) defining technological transference: programs oriented to transfer technological [innovation](#) to SME and to improve their productivity;”

5. EU - Eastern and Southern Africa States²³⁰ (in force since 14 May 2012):

“Article 42
Micro, small and medium-sized enterprises
(...) Areas of cooperation
2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:
(...) (b) technology development and transfer, [innovation](#), information exchange and networks and marketing;”

6. EU – Central America²³¹ RTA (in force since 01 Aug. 2013):

“Article 70
Micro, Small and Medium Enterprises
The Parties agree to promote the competitiveness and insertion of rural and urban MSMEs and their representative organisations, in the international markets, acknowledging their contribution to social cohesion through poverty reduction and job creation, through the provision of non-financial services, training and technical assistance, by executing the following cooperation actions, among others:
(...)
(i) support to [innovation](#), as well as research and development;”

7. Türkiye – Malaysia RTA (in force since 01 Aug. 2015):

“Article 9.5
Cooperation between Small and Medium-Sized Enterprises
With the view to further enhance trade and economic activities, the Parties shall give priority to promoting business and investment opportunities as well as joint ventures between their SMEs. Within this context, the Parties shall, inter alia:
(...) (d) collaborate in assisting capacity building of high skilled workers and

²³⁰ According to the WTO RTAs Database, the Eastern and Southern Africa States abovementioned are: Mauritius; Seychelles; Zimbabwe.

²³¹ According to the WTO RTAs Database, the signatories parties from Central America are: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

technicians such as in construction and construction related services, [innovation](#), research and development, IT and manufacturing sectors;”

8. Japan – Mongolia RTA (in force since 07 Jun. 2016):

“Article 5.3

Small and Medium Enterprises

Pursuant to Article 15.2 of the Basic Agreement, in the field referred to in subparagraph (c) of Article 15.1 of the Basic Agreement:

(a) the areas of cooperation may include:

(i) promotion of [innovative](#) activities of small and medium enterprises (hereinafter referred to in this Article as “SMEs”), including support for the creation, protection and exploitation of intellectual properties;”

9. Peru – Australia RTA (in force since 11 Feb. 2020):

“CHAPTER 23

SMALL AND MEDIUM-SIZED ENTERPRISES

Article 23.1: General Provisions

(...) 3. The Parties also recognise the relevance of:

(...) (c) assessing the effects of globalisation on SMEs and, in particular, examining issues related to SMEs’ access to financing and to support for [innovation](#).”

10. United Kingdom – Eastern and Southern Africa States²³² RTA (in force since 01 Jan. 2021):

“ARTICLE 41

Micro, small and medium-sized enterprises

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(a) capacity building and institutional support;

(b) technology development and transfer, [innovation](#), information exchange and networks and marketing; (...)”

5.2.1.10 In provisions on social aspects or issues

The selected excerpts of the RTAs that mention “innovation” or its variations in provisions on social aspects or issues are transcribed below for ease of reference.

1. EU Treaty (in force since 01 Jan. 1958):

“TITLE IX

EMPLOYMENT

(...) Article 149

(ex Article 129 TEC)

The European Parliament and the Council, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee and the Committee of the Regions, may adopt incentive measures designed to encourage cooperation between Member States and to support their action in the field of employment through initiatives aimed at developing exchanges of information and best practices, providing comparative analysis and advice as well as promoting

²³² According to the WTO RTAs Database, the signatories to this RTA are: Mauritius; Seychelles; Zimbabwe.

[innovative](#) approaches and evaluating experiences, in particular by recourse to pilot projects.
Those measures shall not include harmonisation of the laws and regulations of the Member States.

TITLE X
SOCIAL POLICY

(...) Article 153
(ex Article 137 TEC)

(...) 2. To this end, the European Parliament and the Council:

(a) may adopt measures designed to encourage cooperation between Member States through initiatives aimed at improving knowledge, developing exchanges of information and best practices, promoting [innovative](#) approaches and evaluating experiences, excluding any harmonisation of the laws and regulations of the Member States;”

2. EU Overseas Countries and Territories (OCT) (in force since 01 Jan. 1971):

“Chapter 5

Culture

Article 36

Cultural exchanges and dialogue

(...)

2. Through their cooperation the Union and the OCTs shall seek to stimulate cultural exchanges between each other through:

(...) (c) policy cooperation in order to foster policy development, [innovation](#), audience building and new business models.

Chapter 6

Fight against organised crime

Article 40

Fight against organised crime, trafficking in human beings, child sexual abuse and sexual exploitation, terrorism and corruption

1. In the context of the association, cooperation in the field of organised crime may include:

(a) the development of [innovative](#) and effective means of police and judicial cooperation, including cooperation with other stakeholders such as civil society, in the prevention of and fight against organised crime, trafficking in human beings, child sexual abuse and sexual exploitation, terrorism and corruption; and

(...)”

3. Canada – Israel RTA (in force since 01 Jan. 1997):

“CHAPTER THIRTEEN

TRADE AND GENDER

(...) Article 13.3: Cooperation Activities

(...) 4. Areas of cooperation may include:

(...) (f) promoting female entrepreneurship and women’s participation in international trade, including by improving women’s access to, and participation and leadership in, science, technology and [innovation](#);

(...)”

4. EU – CARIFORUM States²³³ RTA (in force since 29 Dec. 2008):

²³³ According to the WTO RTAs Database, the CARIFORUM States in this case are: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Haiti; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

“CHAPTER 5

Social aspects

(...) Article 191

Objectives and multilateral commitments

(...) 3. The Parties recognise the beneficial role that core labour standards and decent work can have on economic efficiency, [innovation](#) and productivity, and they highlight the value of greater policy coherence between trade policies, on the one hand, and employment and social policies on the other.”

5. United Kingdom – CARIFORUM States²³⁴ RTA (in force since 01 Jan. 2021):

“CHAPTER 5

Social aspects

Article 191

Objectives and multilateral commitments

(...) 3. The Parties recognise the beneficial role that core labour standards and decent work can have on economic efficiency, [innovation](#) and productivity, and they highlight the value of greater policy coherence between trade policies, on the one hand, and employment and social policies on the other.”

²³⁴ According to the WTO RTAs Database, the CARIFORUM States in this case are: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Haiti; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

5.2.2 In RTAs that mention the keyword “**technology**” or its variations

5.2.2.1 In the Preamble and/or Objectives of the RTAs

The selected excerpts of the 39 RTAs that mention the term “technology” or its variations are transcribed below for ease of reference, organized in chronological order by date of entry into force.

1. EU Overseas Countries and Territories (OCT) (in force since 01 Jan. 1971):

“Whereas:

(...) (28) Intellectual property rights are a crucial component for stimulating **innovation** and are a tool to promote economic and social development. They benefit countries by allowing them to protect intellectual creations and assets. Their protection and enforcement helps to facilitate trade, growth and foreign investment as well as to combat the health and safety risks of counterfeit products. OCTs can benefit from a policy on intellectual property rights, in particular in the context of the preservation of biodiversity and the development of **technology**.

(...) (36) In order to take into account **technological** developments and changes in customs legislation, the power to adopt acts amending the Appendices to Annex VI, in accordance with Article 290 TFEU, should be delegated to the Commission. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level. The Commission, when preparing and drawing up delegated acts, should ensure a timely and appropriate transmission of relevant documents to the Council.”

2. Asia Pacific Trade Agreement (APTA) – Framework Agreement (Goods: in force since 17 Jun. 1976; Services: 17 Sep. 2013):

“(…) RECOGNIZING that investment is an important source of knowledge and finance for sustaining the pace of economic, industrial, infrastructure and **technology** development; (…)”

3. EU - Syria (in force since 01 Jul. 1977):

“TITLE I

ECONOMIC, TECHNICAL AND FINANCIAL COOPERATION

(...) Article 4

1. The purpose of cooperation between the Community and Syria shall be to promote, in particular:

(...) — cooperation in the fields of science, **technology** and the protection of the environment, (...)

FINAL ACT

(...) have, on signing these Agreements

(...) — and taken note of the following exchanges of letters:

1. Exchange of letters on cooperation on scientific and **technological** matters and on the protection of the environment,

2. Exchange of letters on implementation of the Agreement before its entry into force in respect of economic, technical and financial cooperation,

3. Exchange of letters on Articles 30 and 43 of the Agreement.”

4. Andean Community (CAN) RTA (in force since 25 May 1988):

“Chapter I: Objectives and Mechanisms

(...) Article 3. To fulfill the objectives of this Agreement, the following mechanisms and measures, among others, shall be employed:

(...) In addition to the mechanisms set out above, the following economic and social cooperation policies shall be carried out jointly:

External actions in the economic field, in subjects of common interest;

Programs to promote scientific and **technological** development; (...)”

5. Russian Federation - Uzbekistan (in force since 25 Mar. 1993):

“PREAMBLE

(...) Government of the Russian Federation and the Government of the Republic of Uzbekistan, hereinafter referred to as the Contracting Parties,

(...) taking into consideration the multilateral Agreement on coordination of works on issues of export control for raw materials, materials, equipment, **technologies** and services, which may be used for production of weapons of mass destruction and rocket means of its delivery, as of June 26, 1992, (...)”

6. European Economic Area RTA (in force since 01 Jan. 1994):

“PREAMBLE

(...) ATTACHED to the common objectives of strengthening the scientific and **technological** basis of European industry and of encouraging it to become more competitive at the international level; (...)”

7. Common Market for Eastern and Southern Africa (COMESA) RTA (in force since 08 Dec. 1994):

“CHAPTER THREE AIMS AND OBJECTIVES

ARTICLE 3 – Aims and Objectives of the Common Market

The aims and objectives of the Common Market shall be:

(...) (c) to co-operate in the creation of an enabling environment for foreign, cross border and domestic investment including the joint promotion of research and adaptation of science and **technology** for development;”

8. Economic Community of West African States (ECOWAS) (in force since 23 Aug. 1995):

“ARTICLE 3

AIMS AND OBJECTIVES

(...) 2. In order to achieve the aims set out in the paragraph above, and in accordance with the relevant provisions of this Treaty, the Community shall, by stages, ensure;

a) the harmonisation and co-ordination of national policies and the promotion of integration programmes, projects and activities, particularly in food, agriculture and natural resources, industry, transport and communications, energy, trade, money and finance, taxation, economic reform policies, human resources, education, information, culture, science, **technology**, services, health, tourism, legal matters;”

9. EU – Tunisia RTA (in force since 01 Mar. 1998):

“CONVINCED that this Agreement will create a climate conducive to the development of their economic relations, in particular in the fields of trade and investment, the key sectors for economic restructuring and **technological** modernisation, HAVE AGREED AS FOLLOWS:”

10. EU – Morocco RTA (in force since 01 Mar. 2000):

“CONVINCED that this Agreement provides a suitable framework for the development of a partnership based on private initiative, a landmark option selected by both the Community and Morocco, and that it will create a climate conducive to economic, trade and investment relations between them, a consideration which offers vital backing for economic restructuring and **technological** modernisation, (...)”

11. EU – Israel RTA (in force since 01 Jun. 2000):

“DESIROUS of maintaining and intensifying a dialogue on economic, scientific, **technological**, cultural, audiovisual and social matters to the benefit of the Parties; CONSIDERING the respective commitments of the Community and Israel to free trade, and in particular to compliance with the rights and obligations arising out of the General Agreement on Tariffs and Trade (GATT) as it results from the negotiations of the Uruguay Round; CONVINCED that the Association Agreement will create a new climate for their economic relations and in particular for the development of trade, investment and economic and **technological** cooperation, (...)”

Article 1

(...) 2. The aims of this Agreement are:

(...) - through the expansion, inter alia, of trade in goods and services, the reciprocal liberalisation of the right of establishment, the further progressive liberalisation of public procurement, the free movement of capital and the intensification of cooperation in science and **technology** to promote the harmonious development of economic relations between the Community and Israel and thus to foster in the Community and in Israel the advance of economic activity, the improvement of living and employment conditions, and increased productivity and financial stability, (...)”

12. East African Community (EAC) RTA (Goods: in force since 07 Jul. 2000; Services: 01 Jul. 2010):

“CHAPTER TWO: ESTABLISHMENT AND PRINCIPLES OF THE COMMUNITY

ARTICLE 5

Objectives of the Community

1. The objectives of the Community shall be to develop policies and programmes aimed at widening and deepening co-operation among the Partner States in political, economic, social and cultural fields, research and **technology**, defence, security and legal and judicial affairs, for their mutual benefit.

(...) 3. For purposes set out in paragraph 1 of this Article and as subsequently provided in particular provisions of this Treaty, the Community shall ensure:

(...) (e) the mainstreaming of gender in all its endeavours and the enhancement of the role of women in cultural, social, political, economic and **technological** development;

ARTICLE 7

Operational Principles of the Community

1. The principles that shall govern the practical achievement of the objectives of the Community shall include:

(...) (c) the establishment of an export oriented economy for the Partner States in which there shall be free movement of goods, persons, labour, services, capital, information and **technology**;

13. EU – Jordan RTA (in force since 01 May 2002):

“(...) DESIROUS of establishing cooperation, supported by a regular dialogue, in economic, scientific, **technological**, cultural, audiovisual and social matters with a view to improving mutual knowledge and understanding,

CONSIDERING the commitment of the Community and Jordan to free trade, and in particular to compliance with the rights and obligations arising out of the General Agreement on Tariffs and Trade (1994) (GATT),
CONVINCED that the Association Agreement will create a new climate for their economic relations and in particular for the development of trade, investment and economic and **technological** cooperation,
HAVE AGREED AS FOLLOWS: (...)"

14. Japan – Singapore RTA (in force since 30 Nov. 2002):

“PREAMBLE

(...) Recognizing that a dynamic and rapidly changing global environment brought about by globalization and **technological** progress presents many new economic and strategic challenges and opportunities to the Parties; (...)

CHAPTER 1 – GENERAL PROVISIONS

Article 1 – Objectives

The objectives of this Agreement are:

(...) (b) to establish a co-operative framework for further strengthening the economic relations between the Parties through such means as:

(...) (ii) promoting the development and use of information and communications **technology** (hereinafter referred to in this Agreement as “ICT”) and ICT-related services;

(iii) developing and encouraging co-operation in the field of science and **technology**;

15. EU – Lebanon RTA (in force since 01 Mar. 2003):

“Preamble

(...) DESIROUS of establishing, maintaining and intensifying cooperation, sustained by regular dialogue, on economic, scientific, **technological**, social, cultural and audiovisual issues in order to achieve better mutual understanding;

CONVINCED that this Agreement will create a climate conducive to growth in economic relations between them, more particularly in the trade and investment sectors which are essential to the success of the economic reconstruction and restructuring programme and to **technological** modernisation,”

16. Panama - El Salvador (Panama - Central America) RTA (in force since 11 Apr. 2003):

“PREÁMBULO

Los Gobiernos de las Repúblicas de Costa Rica, El Salvador, Guatemala, Honduras y Nicaragua, por una Parte, y el Gobierno de la República de Panamá, por la otra, DECIDIDOS A:

(...) PROPICIAR un mercado más extenso y seguro para la facilitación del comercio de mercancías, servicios y el flujo de capitales y **tecnología** en sus territorios;”

17. EU – Egypt RTA (in force since 01 Jun. 2004):

“DESIROUS of enhancing their economic relations and, in particular, the development of trade, investment and **technological** cooperation, supported by a regular dialogue, on economic, scientific, **technological**, cultural, audiovisual and social matters with a view to improving mutual knowledge and understanding, (...)"

18. EU – Algeria RTA (in force since 01 Sep. 2005):

“DESIROUS of establishing cooperation sustained by regular dialogue on economic, scientific, **technological**, social, cultural, audio-visual and environmental issues in order to achieve better mutual understanding,
(...)"

CONVINCED that this Agreement provides a suitable framework for the development of a partnership based on private initiative, and that it will create a climate conducive to economic, trade and investment relations between the Parties, a consideration which offers vital backing for economic restructuring and **technological** modernisation, (...)"

19. South Asian Free Trade Agreement (SAFTA) (in force since 01 Jan. 2006):

"(...) Convinced that preferential trading arrangements among SAARC Member States will act as a stimulus to the strengthening of national and SAARC economic resilience, and the development of the national economies of the Contracting States by expanding investment and production opportunities, trade, and foreign exchange earnings as well as the development of economic and **technological** cooperation;"

20. Trans-Pacific Strategic Economic Partnership²³⁵ (in force since 28 May 2006):

"CHAPTER 1 INITIAL PROVISIONS

Article 1.1: Objectives

CHAPTER 1 INITIAL PROVISIONS

(...) 2. This Agreement covers in particular the commercial, economic, financial, scientific, **technological** and cooperation fields. It may be extended to other areas to be agreed upon by the Parties in order to expand and enhance the benefits of this Agreement."

21. Japan - Malaysia (in force since 13 Jul. 2006):

"Preamble

The Government of Japan and the Government of Malaysia,

Recognising that a dynamic and rapidly changing global environment brought about by globalisation and **technological** progress presents various economic and strategic challenges and opportunities to the Countries; (...)

Chapter 1

Article 1 – Objectives

The objectives of this Agreement, to be pursued in accordance with its provisions, are:

(...) (c) to establish a framework to enhance closer co-operation on socio-economic partnership, inter alia, by way of exchange of information, skills and **technology** in fields as agreed in this Agreement; (...)"

22. Japan - Indonesia (in force since 01 Jul. 2008):

"(...) Acknowledging that a dynamic and rapidly changing global environment brought about by globalization and **technological** progress presents various economic and strategic challenges and opportunities to the Parties;"

23. Brunei Darussalam - Japan (in force since 31 Jul. 2008):

"Preamble

Japan and Brunei Darussalam,

(...) Recognising that a dynamic and rapidly changing global environment brought about by globalisation and **technological** progress presents various economic and strategic challenges and opportunities to the Parties;"

²³⁵ According to the WTO RTAs Database, this agreement is comprised by the following parties: Brunei Darussalam; Chile; New Zealand; Singapore.

24. Panama – Costa Rica (Panama – Central America) RTA (in force since 23 Nov. 2008):

“PREÁMBULO

Los Gobiernos de las Repúblicas de Costa Rica, El Salvador, Guatemala, Honduras y Nicaragua, por una Parte, y el Gobierno de la República de Panamá, por la otra,

DECIDIDOS A: (...)

PROPICIAR un mercado más extenso y seguro para la facilitación del comercio de mercancías, servicios y el flujo de capitales y **tecnología** en sus territorios;”

25. Japan – Philippines RTA (in force since 11 Dec. 2008):

“Preamble

Japan and the Republic of the Philippines (hereinafter referred to in this Agreement as “the Philippines”),

(...) Recognizing that a dynamic and rapidly changing global environment brought about by globalization and **technological** progress presents many new economic and strategic challenges and opportunities to the Parties;”

26. United States – Oman RTA (in force since 01 Jan. 2009):

“(...) Recognizing that open and competitive markets are key drivers of economic efficiency, **innovation**, and growth;

(...) Desiring to foster creativity and **innovation**, improve **technology**, and enhance the protection and enforcement of intellectual property rights;”

27. Panama – Honduras (Panama – Central America) RTA (in force since 09 Jan. 2009):

“PREÁMBULO

Los Gobiernos de las Repúblicas de Costa Rica, El Salvador, Guatemala, Honduras y Nicaragua, por una Parte, y el Gobierno de la República de Panamá, por la otra,

DECIDIDOS A:

(...) PROPICIAR un mercado más extenso y seguro para la facilitación del comercio de mercancías, servicios y el flujo de capitales y **tecnología** en sus territorios;”

28. Japan – Switzerland (Panama – Central America) RTA (in force since 01 Sep. 2009):

“Preamble

Japan and the Swiss Confederation (hereinafter referred to as “Switzerland”), hereinafter referred to as “the Parties”,

RECOGNISING that a dynamic and rapidly changing global environment brought about by globalisation and **technological** progress presents various economic and strategic challenges and opportunities to the Parties;”

29. Japan – Viet Nam RTA (in force since 01 Oct. 2009):

“Preamble

Japan and the Socialist Republic of Viet Nam (hereinafter referred to in this Agreement as “Viet Nam”),

Recognizing that a dynamic and rapidly changing global environment brought about by globalization and **technological** progress presents various economic and strategic challenges and opportunities to the Parties; (...)”

30. Panama – Nicaragua RTA (in force since 21 Nov. 2009):

“PREÁMBULO

Los Gobiernos de las Repúblicas de Costa Rica, El Salvador, Guatemala, Honduras y Nicaragua, por una Parte, y el Gobierno de la República de Panamá, por la otra, DECIDIDOS A:

(...) PROPICIAR un mercado más extenso y seguro para la facilitación del comercio de mercancías, servicios y el flujo de capitales y **tecnología** en sus territorios;”

31. New Zealand – Malaysia RTA (in force since 01 Aug. 2010):

“Article 1.2 Objectives

1. The objectives of this Agreement are:

(...) (c) to establish a framework to enhance socio-economic cooperation, by way of exchange of information, skills and **technology** in fields as agreed in this Agreement;”

32. Hong Kong – New Zealand RTA (in force since 01 Jan. 2011):

“PREAMBLE

The Governments of New Zealand and the Hong Kong Special Administrative Region of the People’s Republic of China (“Hong Kong, China”), hereinafter referred to collectively as “the Parties”:

(...) Considering that electronic commerce, information **technologies** and knowledge-based industries are supporting the rapid integration of global economic activity and development and expansion of their economies;”

33. India – Japan RTA (in force since 01 Aug. 2011):

“Preamble

Japan and the Republic of India (hereinafter referred to as “India”),

RECOGNISING that a dynamic and rapidly changing global environment brought about by globalisation and **technological** progress presents various economic and strategic challenges and opportunities to the Parties;”

34. Costa Rica – China RTA (in force since 01 Aug. 2011):

“Chapter 1 Initial Provisions

(...) Article 2: Objectives

1. The objectives of this Agreement are to:

(...) (e) ensure an adequate and effective protection of intellectual property rights in the territories of the Parties, taking into consideration the economic situation and the social or cultural need of each Party; as well as to promote **technological innovation** and the transfer and dissemination of **technology** between the Parties;”

35. EU - Eastern and Southern Africa States²³⁶ RTA (in force since 14 May 2012):

“PREAMBLE

WE the African, Caribbean and Pacific (ACP) States of the Eastern and Southern African (ESA) region, constituted as the ESA Group and its individual member States, on the one hand, and the European Community (EC) and its Member States, on the other;

(...) REAFFIRMING that the EPA shall serve as an instrument for development and shall promote sustained growth, increase the production and supply-side capacity of ESA States, foster structural transformation of ESA economies and their diversification and competitiveness and lead to the development of trade, the

²³⁶ According to the WTO RTAs Database, the Eastern and Southern Africa States abovementioned are: Mauritius; Seychelles; Zimbabwe.

attraction of investment and **technology** and the creation of employment in ESA States; (...)"

36. EU – Central America²³⁷ (in force since 01 Aug. 2013):

“CONVINCED that this Agreement will create a climate conducive to growth in sustainable economic relations between them, more particularly in the trade and investment sectors which are essential to the realisation of the economic and social development and **technological innovation** and modernisation;”

37. EU – Georgia RTA (in force since 01 Sep. 2014):

“PREAMBLE

(...) COMMITTED to enhancing people-to-people contacts, including through cooperation and exchanges in the fields of science and **technology**, business, youth, education and culture;”

38. EU - Canada RTA (in force since 21 Sep. 2017):

“RECOGNISING the strong link between **innovation** and trade, and the importance of **innovation** to future economic growth, and affirming their commitment to encourage the expansion of cooperation in the area of **innovation**, as well as the related areas of research and development and science and **technology**, and to promote the involvement of relevant public and private sector entities; (...)"

39. El Salvador – Ecuador RTA (in force since 16 Nov. 2017):

“(...) considerando:

(...) Que es conveniente la creación de instrumentos que faciliten la transferencia de **tecnologías** e **innovación**, así como el intercambio de conocimiento, experiencias y asistencia técnica para la generación de capacidades productivas que contribuyan al mejoramiento de la calidad de vida de sus pueblos;

Capítulo I

Disposiciones Iniciales

Artículo I.1: Objetivos

Este Acuerdo tiene los siguientes objetivos:

(...) (e) impulsar la integración latinoamericana a través de un comercio bilateral que busque la profundización del intercambio de mercancías de calidad, con valor agregado, que garanticen el patrimonio natural y el uso de **tecnologías** limpias.”

5.2.2.2 In IP Provisions

The selected excerpts of the 80 RTAs that mention the term “technology” or its variations in IP provisions are transcribed below for ease of reference.

1. Canada – Israel RTA (in force since 01 Jan. 1997):

“CHAPTER TEN

INTELLECTUAL PROPERTY

Article 10.1: Objectives and Principles

²³⁷ According to the WTO RTAs Database, the signatories parties from Central America are: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

(...) 2. Each Party shall endeavour to maintain intellectual property regimes that aim to:
(a) facilitate international trade and economic, social and cultural development through the dissemination of ideas, **technology** and creative works; and
(b) promote certainty for right holders and users in respect of the protection and enforcement of intellectual property rights.”

2. Chile – Mexico RTA (in force since 01 Aug. 1999):

“QUINTA PARTE
PROPIEDAD INTELECTUAL
Capítulo 15
Propiedad intelectual
Artículo 15-06: Control de prácticas y condiciones abusivas o contrarias a la competencia
1. Las Partes convienen que ciertas prácticas o condiciones relativas a la concesión de las licencias de los derechos de propiedad intelectual a los que se refiere este capítulo, que restringen la competencia, pueden tener efectos perjudiciales para el comercio y pueden impedir la transferencia y la divulgación de la **tecnología**.”

3. United States – Jordan RTA (in force since 17 Dec. 2001):

“ARTICLE 4: INTELLECTUAL PROPERTY RIGHTS
(...) Copyright and Related Rights
(...) 12. Each Party shall provide to performers and producers of phonograms the exclusive right to authorize or prohibit the broadcasting and communication to the public of their performances or phonograms, regardless of whether the broadcast or communication is effected by wired or wireless means, except that a Party may provide exemptions for analog transmissions and free over-the-air broadcasts, and may introduce statutory licenses for non-interactive services that, by virtue of their programming practices, including both the content of their transmissions and their use of **technological** measures to prevent unauthorized uses, are unlikely to conflict with a normal exploitation of phonograms or performances.

13. In applying the prohibition under Article 11 of the WCT and Article 18 of the WPPT on circumvention of effective **technological** measures that are used by authors, performers and producers of phonograms in connection with the exercise of their rights and that restrict unauthorized acts in respect of their works, performances and phonograms, each Party shall prohibit civilly and criminally the manufacture, importation or circulation of any **technology**, device, service or part thereof, that is designed, produced, performed or marketed for engaging in such prohibited conduct, or that has only a limited commercially significant purpose or use
9 other than enabling or facilitating such conduct.

Patents
17. Subject to paragraph 18, patents shall be available for any invention, whether product or process, in all fields of **technology**, provided that it is new, involves an inventive step and is capable of industrial application.”

4. Japan – Singapore RTA (in force since 30 Nov. 2002):

“CHAPTER 10 – INTELLECTUAL PROPERTY
Article 96 – Areas and Forms of Co-operation under Chapter 10
(...) 2. The areas of the co-operation pursuant to paragraph 1 above may include:
(...) (g) **technology** and market intelligence; (...)”

5. Singapore – Australia RTA (in force since 28 Jul. 2003):

“13 INTELLECTUAL PROPERTY
(...) ARTICLE 5

Effective **Technological** Measures

1. Each Party shall provide that any person who:

(a) knowingly, or having reasonable grounds to know, circumvents without authority any effective **technological** measure that controls access to a protected work, performance, sound recording or other subject matter; or

(b) manufactures, imports, distributes, offers to the public, provides, or otherwise traffics in devices, products or components, or offers to the public, or provides services, that:

(i) are promoted, advertised, or marketed for the purpose of circumvention of any effective **technological** measure;

(ii) have only a limited commercially significant purpose or use other than to circumvent any effective **technological** measure; or (iii) are primarily designed, produced, or performed for the purpose of enabling or facilitating the circumvention of any effective **technological** measure,

shall be liable and subject to civil remedies. Each Party shall provide for criminal procedures and penalties to be applied where any person is found to have engaged wilfully and for the purposes of commercial advantage in any of the above activities. Each Party may provide that such criminal procedures and penalties do not apply to a non-profit library, archive, educational institution or public non-commercial broadcasting entity.

2. "Effective **technological** measure" means any **technology**, device, or component that, in the normal course of its operation, controls access to a protected work, performance, sound recording or other protected subject matter, or protects any copyright.

3. Each Party may provide for exceptions to the obligations in paragraph 1 of this Article, provided that such exceptions do not impair the adequacy of legal protection or the effectiveness of the legal remedies that the Party provides against the circumvention of effective **technological** measures.

ARTICLE 12

Limitation on Liability of Service Providers

(...) 5. With respect to functions referred to in subparagraph 2(b), the limitations shall be conditioned on the service provider:

(...) (c) not interfering with **technology** used at the originating site consistent with industry standards generally accepted in the Party's territory to obtain information about the use of the material, and not modifying its content in transmission to subsequent users; and"

6. United States – Chile RTA (in force since 01 Jan. 2004):

"Chapter Seventeen Intellectual Property Rights

The Parties,

(...) Desiring to enhance the intellectual property systems of the two Parties to account for the latest **technological** developments and to ensure that measures and procedures to enforce intellectual property rights do not themselves become barriers to legitimate trade;

(...) Emphasizing that the protection and enforcement of intellectual property rights is a fundamental principle of this Chapter that helps promote **technological innovation** as well as the transfer and dissemination of **technology** to the mutual advantage of **technology** producers and users, and that encourages the development of social and economic well-being;

Convinced of the importance of efforts to encourage private and public investment for research, development, and **innovation**;

Recognizing that the business community of each Party should be encouraged to participate in programs and initiatives for research, development, **innovation**, and the transfer of **technology** implemented by the other Party;

Recognizing the need to achieve a balance between the rights of right holders and the legitimate interests of users and the community with regard to protected works;

Agree as follows: (...)

Article 17.7 Obligations Common to Copyright and Related Rights

(...) 5. In order to provide adequate legal protection and effective legal remedies against the circumvention of effective **technological** measures that are used by authors, performers, and producers of phonograms in connection with the exercise of their rights and that restrict unauthorized acts in respect of their works, performances, and phonograms, protected by copyright and related rights:

(a) each Party shall provide that any person who knowingly¹⁸ circumvents without authorization of the right holder or law consistent with this Agreement any effective **technological** measure that controls access to a protected work, performance, or phonogram shall be civilly liable and, in appropriate circumstances, shall be criminally liable, or said conduct shall be considered an aggravating circumstance of another offense.¹⁹ No Party is required to impose civil or criminal liability for a person who circumvents any effective **technological** measure that protects any of the exclusive rights of copyright or related rights in a protected work, but does not control access to such work.

(b) each Party shall also provide administrative or civil measures, and, where the conduct is willful and for prohibited commercial purposes, criminal measures with regard to the manufacture, import, distribution, sale, or rental of devices, products, or components or the provision of services which:

(i) are promoted, advertised, or marketed for the purpose of circumvention of any effective **technological** measure, or

(ii) do not have a commercially significant purpose or use other than to circumvent any effective **technological** measure, or

(iii) are primarily designed, produced, adapted, or performed for the purpose of enabling or facilitating the circumvention of any effective **technological** measures.

(d) Each Party shall confine limitations and exceptions to measures implementing subparagraphs (a) and (b) to certain special cases that do not impair the adequacy of legal protection or the effectiveness of legal remedies against the circumvention of effective **technological** measures. In particular, each Party may establish exemptions and limitations to address the following situations and activities in accordance with subparagraph (e): (...)

(iii) noninfringing good faith activities, carried out by a researcher who has lawfully obtained a copy, performance, or display of a work, and who has made a reasonable attempt to obtain authorization for such activities, to the extent necessary for the sole purpose of identifying and analyzing flaws and vulnerabilities of encryption **technologies**;

(iv) the inclusion of a component or part for the sole purpose of preventing the access of minors to inappropriate online content in a **technology**, product, service, or device that does not itself violate any measures implementing subparagraphs (a) and (b); (...)

(e) Each Party may apply the exceptions and limitations for the situations and activities set forth in subparagraph (d) as follows:

(...) (ii) any measure implementing subparagraph (b), as it applies to effective **technological** measures that control access to a work, may be subject to exceptions and limitations with respect to the activities set forth in subparagraphs (d)(ii), (iii), (iv), (v), and (vii).

(iii) any measure implementing subparagraph (b), as it applies to effective **technological** measures that protect any copyright or any rights related to copyright, may be subject to exceptions and limitations with respect to the activities set forth in subparagraph (d)(ii) and (vii). (

f) Effective **technological** measure means any **technology**, device, or component that, in the normal course of its operation, controls access to a work, performance, phonogram, or any other protected material, or that protects any copyright or any rights related to copyright, and cannot, in the usual case, be circumvented accidentally.

(...) 7. Each Party shall apply Article 18 of the Berne Convention, mutatis mutandis, to all the protections of copyright and related rights and effective **technological** measures and rights management information in Articles 17.5, 17.6, and 17.7.

Article 17.9: Patents

1. Each Party shall make patents available for any invention, whether a product or a process, in all fields of **technology**, provided that the invention is new, involves an inventive step, and is capable of industrial application. For purposes of this Article, a Party may treat the terms “inventive step” and “capable of industrial application” as being synonymous with the terms “non-obvious” and “useful”, respectively.

(...) Limitations on Liability for Internet Service Providers

23. (c) With respect to function (b)(ii), the limitations shall be conditioned on the service provider:

(...) (ii) not interfering with **technology** consistent with widely accepted industry standards lawfully used at the originating site to obtain information about the use of the material, and not modifying its content in transmission to subsequent users; and
(...)

Article 17.12: Final Provisions

(...) 2. In those cases in which the full implementation of the obligations contained in this Chapter requires a Party to amend its domestic legislation or additional financial resources, those amendments and financial resources shall be in force or available as soon as practicable, and in no event later than:

(...) (c) five years from the date of entry into force of this Agreement, with respect to the obligations in Article 17.7(5) on effective **technological** measures.”

7. United States – Singapore RTA (in force since 01 Jan. 2004):

“CHAPTER 16: INTELLECTUAL PROPERTY RIGHTS

ARTICLE 16.4: OBLIGATIONS COMMON TO COPYRIGHT AND RELATED RIGHTS

(...) 7. (a) In order to provide adequate legal protection and effective legal remedies against the circumvention of effective **technological** measures that authors, performers, producers of phonograms, and their successors in interest use in connection with the exercise of their rights and that restrict unauthorized acts in respect of their works, performances, and phonograms, each Party shall provide that any person who:

(i) knowingly, or having reasonable grounds to know, circumvents without authority any effective **technological** measure that controls access to a protected work, performance, phonogram, or other subject matter; or

(ii) manufactures, imports, distributes, offers to the public, provides, or otherwise traffics in devices, products, or components or offers to the public or provides services, which:

(A) are promoted, advertised, or marketed for the purpose of circumvention of any effective **technological** measure, or

(B) have only a limited commercially significant purpose or use other than to circumvent any effective **technological** measure, or

(C) are primarily designed, produced, or performed for the purpose of enabling or facilitating the circumvention of any effective **technological** measure;

shall be liable and subject to the remedies provided for in Article 16.9.5. Each Party shall provide that any person, other than a nonprofit library, archive, educational institution, or public noncommercial broadcasting entity, that is found to have engaged willfully and for purposes of commercial advantage or private financial gain in such activities shall be guilty of a criminal offense.

(b) For purposes of this paragraph, effective **technological** measure means any **technology**, device, or component that, in the normal course of its operation, controls access to a protected work, performance, phonogram, or other subject matter, or protects any copyright or any rights related to copyright.

(c) Paragraph 7(a) obligates each Party to prohibit circumvention of effective **technological** measures and does not obligate a Party to require that the design of, or the design and selection of parts and components for, a consumer electronics, telecommunications, or computing product provide for a response to any particular **technological** measure. The absence of a requirement to respond affirmatively shall

not constitute a defense to a claim of violation of that Party's measures implementing paragraph 7(a).

(...)

(e) Each Party shall confine exceptions to the prohibition referred to in paragraph 7(a)(ii) on **technology**, products, services, or devices that circumvent effective **technological** measures that control access to, and, in the case of clause (i) below, that protect any of the exclusive rights of copyright or related rights in a protected work, to the following activities, provided that they do not impair the adequacy of legal protection or the effectiveness of legal remedies that the Party provides against the circumvention of effective **technological** measures:

(...)

ARTICLE 16.7 : PATENTS

1. Each Party shall make patents available for any invention, whether a product or a process, in all fields of **technology**, provided that the invention is new, involves an inventive step, and is capable of industrial application. For purposes of this Article, a Party may treat the terms "inventive step" and "capable of industrial application" as being synonymous with the terms "non-obvious" and "useful", respectively. Each Party may exclude inventions from patentability only as defined in Articles 27.2 and 27.3(a) of the TRIPS Agreement."

8. United States - Australia RTA (in force since 01 Jan. 2005):

"ARTICLE 17.9: PATENTS

1. Each Party shall make patents available for any invention, whether a product or process, in all fields of **technology**, provided that the invention is new, involves an inventive step, and is capable of industrial application. The Parties confirm that patents shall be available for any new uses or methods of using a known product. For the purposes of this Article, a Party may treat the terms "inventive step" and "capable of industrial application" as synonymous with the terms "non-obvious" and "useful", respectively.

ARTICLE 17.12 : TRANSITIONAL PROVISIONS

Recognizing that Australian law currently restricts making and distributing devices or providing services to circumvent effective **technological** measures, Australia shall fully implement the obligations set forth in Article 17.4.7 within two years of the date of entry into force of this Agreement. In the interim, Australia may not adopt any new measure that is less consistent with Article 17.4.7 or apply any new or existing measure so as to reduce the level of protection provided on the date of entry into force of this Agreement."

9. New Zealand – Thailand RTA (in force since 01 Jul. 2005):

"ARTICLE 12.3

Intellectual Property Principles

1. The Parties recognise the importance of intellectual property rights in promoting economic and social development, particularly in the new digital economy; **technological innovation**; and trade.

2. The Parties are committed to the maintenance of intellectual property rights regimes that promote **innovation** through protecting the rights of intellectual property right holders and the legitimate interests of the community in accordance with the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

ARTICLE 12.5

Other Cooperation

1. Recognizing that intellectual property rights can facilitate international trade through the dissemination of ideas, **technology** and creative works, the Parties, through their respective agencies responsible for intellectual property, shall: (...)"

10. India – Singapore RTA (in force since 01 Aug. 2005):

“ARTICLE 12.3: PROTECTION AND DISTRIBUTION OF INTELLECTUAL PROPERTY RIGHTS AND OTHER RIGHTS OF A PROPRIETARY NATURE

1. Scientific and **technological** information of a non-proprietary nature arising from Co-operative Activities may be made available to the public by the government of either Party. (...)”

11. United States – Morocco RTA (in force since 01 Jan. 2006):

“CHAPTER 15 INTELLECTUAL PROPERTY RIGHTS
(...) ARTICLE 15.5: COPYRIGHT AND RELATED RIGHTS
(...) 8. (a)

In order to provide adequate legal protection and effective legal remedies against the circumvention of effective **technological** measures that authors, performers, and producers of phonograms use in connection with the exercise of their rights and that restrict unauthorized acts in respect of their works, performances, and phonograms, each Party shall provide that any person who:

(i) circumvents without authority any effective **technological** measure that controls access to a protected work, performance, phonogram, or other subject matter; or
(ii) manufactures, imports, distributes, offers to the public, provides, or otherwise trafficks in devices, products, or components, or offers to the public or provides services, that:

(A) are promoted, advertised, or marketed for the purpose of circumvention of any effective **technological** measure,

(B) have only a limited commercially significant purpose or use other than to circumvent any effective **technological** measure, or

(C) are primarily designed, produced, or performed for the purpose of enabling or facilitating the circumvention of any effective **technological** measure, shall be liable and subject to the remedies set out in Article 15.11.14. Each Party shall provide for criminal procedures and penalties to be applied when any person, other than a nonprofit library, archive, educational institution, or public noncommercial broadcasting entity, is found to have engaged willfully and for purposes of commercial advantage or private financial gain in any of the foregoing activities.

(b) In implementing subparagraph (a), neither Party shall be obligated to require that the design of, or the design and selection of parts and components for, a consumer electronics, telecommunications, or computing product provide for a response to any particular **technological** measure, so long as the product does not otherwise violate any measures implementing subparagraph (a).

(...)

(e) The exceptions and limitations to any measures implementing subparagraph (a) for the activities set forth in subparagraph (d) may only be applied as follows, provided that they do not impair the adequacy of legal protection or the effectiveness of legal remedies against the circumvention of effective **technological** measures:

(i) Measures implementing subparagraph (a)(i) may be subject to exceptions and limitations with respect to each activity set forth in subparagraph (d).

(ii) Measures implementing subparagraph (a)(ii), as they apply to effective **technological** measures that control access to a work, performance, or phonogram, may be subject to exceptions and limitations with respect to activities set forth in subparagraph (d)(i), (ii), (iii), (iv), and (vi).

(iii) Measures implementing subparagraph (a)(ii), as they apply to effective **technological** measures that protect any copyright or any rights related to copyright, may be subject to exceptions and limitations with respect to activities set forth in subparagraph (d)(i) and (vi).

(f) For purposes of this paragraph, effective **technological** measure means any **technology**, device, or component that, in the normal course of its operation, controls access to a protected work, performance, phonogram, or other protected subject matter, or protects any copyright or any rights related to copyright.”

12. Dominican Republic - Central America - United States Free Trade Agreement (CAFTA-DR) RTA (in force since 01 Mar. 2006):

“Chapter Fifteen Intellectual Property Rights

(...) Article 15.5: Obligations Pertaining to Copyright and Related Rights

(...) 6. Each Party shall provide that for copyright and related rights:

(...) 7. (a) In order to provide adequate legal protection and effective legal remedies against the circumvention of effective **technological** measures that authors, performers, and producers of phonograms use in connection with the exercise of their rights and that restrict unauthorized acts in respect of their works, performances, and phonograms, each Party shall provide that any person who:

(i) circumvents without authority any effective **technological** measure that controls access to a protected work, performance, phonogram, or other subject matter; or

(ii) manufactures, imports, distributes, offers to the public, provides, or otherwise traffics in devices, products, or components, or offers to the public or provides services, that:

(A) are promoted, advertised, or marketed for the purpose of circumvention of any effective **technological** measure; or

(B) have only a limited commercially significant purpose or use other than to circumvent any effective **technological** measure; or

(C) are primarily designed, produced, or performed for the purpose of enabling or facilitating the circumvention of any effective **technological** measure,

shall be liable and subject to the remedies provided for in Article 15.11.14. Each Party shall provide for criminal procedures and penalties to be applied when any person, other than a nonprofit library, archive, educational institution, or public non-commercial broadcasting entity, is found to have engaged willfully and for purposes of commercial advantage or private financial gain in any of the foregoing activities.

(b) In implementing subparagraph (a), no Party shall be obligated to require that the design of, or the design and selection of parts and components for, a consumer electronics, telecommunications, or computing product provide for a response to any particular **technological** measure, so long as the product does not otherwise violate any measures implementing subparagraph (a).

(...)

(d) Each Party shall confine exceptions to any measures implementing the prohibition in subparagraph (a)(ii) on **technology**, products, services, or devices that circumvent effective **technological** measures that control access to, and, in the case of clause (i), that protect any of the exclusive rights of copyright or related rights in, a protected work, performance, or phonogram referred to in subparagraph (a)(ii), to the following activities, provided that they do not impair the adequacy of legal protection or the effectiveness of legal remedies against the circumvention of effective **technological** measures:

(...) (ii) non infringing good faith activities, carried out by an appropriately qualified researcher who has lawfully obtained a copy, unfixed performance or display of a work, performance, or phonogram, and who has made a good faith effort to obtain authorization for such activities, to the extent necessary for the sole purpose of identifying and analyzing flaws and vulnerabilities of **technologies** for scrambling and descrambling of information;

(iii) the inclusion of a component or part for the sole purpose of preventing the access of minors to inappropriate on-line content in a **technology**, product, service, or device that itself is not prohibited under the measures implementing subparagraph (a)(ii); and (...)

(e) Each Party shall confine exceptions to any measures implementing the prohibition referred to in subparagraph (a)(i) to the activities listed in subparagraph (d) and the following activities, provided that they do not impair the adequacy of legal protection or the effectiveness of legal remedies against the circumvention of effective **technological** measures: (...)

(g) Effective **technological** measure means any **technology**, device, or component that, in the normal course of its operation, controls access to a protected work,

performance, phonogram, or other protected subject matter, or protects any copyright or any rights related to copyright.”

13. Korea - Singapore RTA (in force since 02 Mar. 2006):

“CHAPTER 17 INTELLECTUAL PROPERTY RIGHTS
(...) ARTICLE 17.5: CO-OPERATION IN THE FIELD OF INTELLECTUAL PROPERTY
2. The Parties, pursuant to paragraph 1, may co-operate in the following areas:
(...) (d) patent **technology**, licensing, and market intelligence; and”

14. Trans-Pacific Strategic Economic Partnership²³⁸ (in force since 28 May 2006):

“CHAPTER 10 INTELLECTUAL PROPERTY
(...) Article 10.2: Intellectual Property Principles
1. The Parties recognise the importance of intellectual property in promoting economic and social development, particularly in the new digital economy, **technological innovation** and trade.”

15. Guatemala – Chinese Taipei RTA (in force since 01 Jul. 2006):

“PART FIVE INTELLECTUAL PROPERTY RIGHTS
CHAPTER 15 INTELLECTUAL PROPERTY
(...) Article 15.09 Technical Cooperation
The Parties shall establish a system of technical cooperation, based upon mutually agreed terms and conditions and within the framework of the WTO on matters relating to intellectual property, and in the areas of newly developed issues related to intellectual property, as well as:
a) promote and develop information disclosure and the transfer of **technology** based on the **technological** content stated in the patent documents, for which adequate databases must be supplied; (...)”

16. Japan - Malaysia (in force since 13 Jul. 2006):

“Article 119 – Patents
1. Patents shall be available for any inventions, whether products or processes, in all fields of **technology**, provided that they are new, involve an inventive step and are capable of industrial application in accordance with Article 27 of the TRIPS Agreement.”

17. United States – Bahrain RTA (in force since 01 Aug. 2006):

“CHAPTER FOURTEEN INTELLECTUAL PROPERTY RIGHTS
(...) ARTICLE 14.4: OBLIGATIONS PERTAINING TO COPYRIGHT AND RELATED RIGHTS
(...) 7. (a) In order to provide adequate legal protection and effective legal remedies against the circumvention of effective **technological** measures that authors, performers, and producers of phonograms use in connection with the exercise of their rights and that restrict unauthorized acts in respect of their works, performances, and phonograms, each Party shall provide that any person who:
(i) circumvents without authority any effective **technological** measure that controls access to a protected work, performance, phonogram, or other subject matter; or
(ii) manufactures, imports, distributes, offers to the public, provides, or otherwise traffics in devices, products, or components, or offers to the public or provides services, which:

²³⁸ According to the WTO RTAs Database, this agreement is comprised by the following parties: Brunei Darussalam; Chile; New Zealand; Singapore.

(A) are promoted, advertised, or marketed for the purpose of circumvention of any effective **technological** measure, or
(B) have only a limited commercially significant purpose or use other than to circumvent any effective **technological** measure, or
(C) are primarily designed, produced, or performed for the purpose of enabling or facilitating the circumvention of any effective **technological** measure;
shall be liable and subject to the remedies provided for in Article 14.10.14. Each Party shall provide for criminal procedures and penalties to be applied when any person, other than a nonprofit library, archive, educational institution, or public noncommercial broadcasting entity, is found to have engaged willfully and for purposes of commercial advantage or private financial gain in the above activities.
(b) Effective **technological** measure means any **technology**, device, or component that, in the normal course of its operation, controls access to a protected work, performance, phonogram, or other subject matter, or protects any copyright or any rights related to copyright.”

18. Chile – China RTA (Goods: in force since 01 Oct. 2006; Services: in force since 01 Aug. 2010):

“Article 111 - Intellectual Property Rights
1. The aim of cooperation on intellectual property rights will be:
(...) (b) to promote economic and social development, particularly in the new digital economy, **technological innovation** as well as the transfer and dissemination of **technology** to the mutual advantage of **technology** producers and users, and to encourage the development of social economic well-being, and trade; (...)”

19. Chile – Japan RTA (in force since 03 Sept. 2007):

“Chapter 13
Intellectual Property
Article 158
General Provisions
(...) 2. The Parties may take appropriate measures to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of **technology**, provided that such measures are consistent with the provisions of this Agreement and the TRIPS Agreement.”

20. Japan – Thailand RTA (in force since 01 Nov. 2007):

“Chapter 10
Intellectual Property
(...) Article 129
Objectives
1. The protection and enforcement of intellectual property rights should contribute to the promotion of **technological innovation** and to the transfer and dissemination of **technology**, to the mutual advantage of producers and users of **technological** knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

Article 130
Patents
1. Patents shall be available for any inventions, whether products or processes, in all fields of **technology**, provided that they are new, involve an inventive step and are capable of industrial application in accordance with Article 27 of the TRIPS Agreement.

Article 133
Copyright and Related Rights

(...) 2. Each Party shall endeavour to provide adequate legal protection and effective legal remedies against the circumvention of effective **technological** measures that are used by authors, performers or producers of phonograms in connection with the exercise of their rights under the laws and regulations of the Party and that restrict acts, in respect of their works, performances or phonograms, which are not authorised by the authors, performers or producers of phonograms concerned or permitted by the laws and regulations of the Party.”

21. Pakistan – Malaysia RTA (in force since 01 Jan. 2008):

“CHAPTER 10 INTELLECTUAL PROPERTY

Article 104 Principles

1. The Parties recognise the importance of intellectual property in promoting economic and social development, particularly in the new digital economy, **technological innovation** and trade.
2. The Parties recognise the need to achieve a balance between the rights of right holders and the legitimate interests of users and the community with regard to protected subject matter.”

22. China – New Zealand RTA (01 Oct. 2008):

“CHAPTER 12 INTELLECTUAL PROPERTY

(...) Article 160 Intellectual Property Principles

1. The Parties recognise the importance of intellectual property rights in promoting economic and social development, particularly in the new digital economy, **technological innovation** and trade. (...)

Article 161 General Provisions

1. Each Party shall establish and maintain transparent intellectual property rights regimes and systems that:
 - (a) provide certainty over the protection and enforcement of intellectual property rights;
 - (b) minimise compliance costs for business; and
 - (c) facilitate international trade through the dissemination of ideas, **technology** and creative works. (...)

23. Japan – Philippines RTA (in force since 11 Dec. 2008):

“Article 126

Copyright and Related Rights

- (...) 2. Each Party shall provide adequate legal protection and effective legal remedies against the circumvention of effective **technological** measures that are used by authors, performers or producers of phonograms in connection with the exercise of their rights under the laws and regulations of the Party and that restrict acts, in respect of their works, performances or phonograms, which are not authorized by the authors, performers or producers of phonograms concerned or permitted by the laws and regulations of the Party.”

24. EU – CARIFORUM States²³⁹ RTA (in force since 29 Dec. 2008):

“CHAPTER 2

Innovation and intellectual property

Article 131

Context

²³⁹ According to the WTO RTAs Database, the CARIFORUM States at that point of time were: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

1. The Parties agree that fostering **innovation** and creativity improves competitiveness and is a crucial element in their economic partnership, in achieving sustainable development, promoting trade between them and ensuring the gradual integration of CARIFORUM States into the world economy.

2. They also recognise that the protection and enforcement of intellectual property plays a key role in fostering creativity, **innovation** and competitiveness, and are determined to ensure increasing levels of protection appropriate to their levels of development.

Article 132

Objectives

The objectives of this Chapter are to:

(a) promote the process of **innovation**, including eco-**innovation**, of enterprises located in the Parties;

(b) foster competitiveness of enterprises and in particular micro-, small and medium-sized enterprises of the Parties;

(c) facilitate the production and commercialisation of **innovative** and creative products between the Parties;

(d) achieve an adequate and effective level of protection and enforcement of intellectual property rights;

(e) contribute to the promotion of **technological innovation** and to the transfer and dissemination of **technology** and know-how;

(f) encourage, develop and facilitate cooperative research and development activities in science and **technology** between the Parties, as well as to develop lasting relations between the Parties' scientific communities;

(g) encourage, develop and facilitate cooperative production and development activities in the creative industries between the Parties, as well as to develop lasting relationships between the Parties' creative communities;

(h) promote and strengthen regional cooperative activities involving the outermost regions of the European Community, so as to allow these regions and the CARIFORUM States to mutually benefit from their proximity and neighbourhood situation by developing an **innovative** and competitive regional area. (...)

Section 1

Innovation

(...) Article 135

Cooperation in the area of competitiveness and **innovation**

1. The Parties recognise that the promotion of creativity and **innovation** is essential for the development of entrepreneurship and competitiveness and the achievement of the overall objectives of this Agreement.

2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:

(a) promotion of **innovation**, diversification, modernisation, development and product and process quality in businesses;

(...)

(f) promotion of partnerships for research and development activities in the CARIFORUM States in order to improve their **innovation** systems; and

(g) intensification of activities to promote linkages, **innovation** and **technology** transfer between CARIFORUM and European Community partners.

Article 136

Cooperation on science and **technology**

1. The Parties will foster the participation of their research and **technological** development bodies in the cooperation activities in compliance with their internal rules. Cooperative activities may take the following forms:

(a) joint initiatives to raise the awareness of the science and **technology** capacity building programmes of the European Community, including the international dimension of 7th Framework Programme for Research and **Technological** Development (FP7) and possible successor programmes, as appropriate;

(b) joint research networks in areas of common interest;

- (c) exchanges of researchers and experts to promote project preparation and participation in FP7 and in the other research programmes of the European Community;
 - (d) joint scientific meetings to foster exchanges of information and interaction and to identify areas for joint research;
 - (e) promotion of advanced science and **technology** studies which contribute to the long term sustainable development of both Parties;
 - (f) development of links between the public and private sectors;
 - (g) evaluation of joint work and the dissemination of results;
 - (h) policy dialogue and exchanges of scientific and **technological** information and experience at regional level;
 - (i) exchange of information at regional level on regional science and **technology** programmes;
 - (j) participation in the Knowledge and **Innovation** Communities of the European Institute of **Innovation** and **Technology**.
2. Special emphasis will be put on human potential building as a long-lasting basis of scientific and **technological** excellence and the creation of sustainable links between the scientific and **technological** communities of the Parties, at both national and regional levels.
 3. Research centres, higher-education institutions, and other stakeholders, including micro, small and medium enterprises, located in the Parties shall be involved in this cooperation as appropriate.
 4. The Parties shall promote the participation of their respective entities in each other's scientific and **technological** programmes in pursuit of mutually beneficial scientific excellence and in accordance with their respective provisions governing the participation of legal entities from third countries.

Article 137

Cooperation on information society and information and communication **technologies**

1. The Parties recognise that information and communications **technologies** (ICT) are key sectors in a modern society and are of vital importance to foster creativity, **innovation** and competitiveness, as well as the smooth transition to the information society.

Section 2

Intellectual property

(...) Subsection 1 – Principles

(...) Article 139

Nature and scope of obligations

3. For the purpose of this Agreement, intellectual property rights include copyright (including the copyright in computer programmes, and neighbouring rights); utility models; patents including patents for bio-**technological** inventions; protection for plant varieties; designs; layout-designs (topographies) of integrated circuits; geographical indications; trade marks for goods or services; protection for data bases; protection against unfair competition as referred to in Article 10bis of the Paris Convention for the Protection of Industrial Property, and protection of undisclosed confidential information on know how.

Article 142

Transfer of **technology**

1. The EC Party and the Signatory CARIFORUM States agree to exchange views and information on their practices and policies affecting transfer of **technology**, both within their respective regions and with third countries. This shall in particular include measures to facilitate information flows, business partnerships, licensing and subcontracting. Particular attention shall be paid to the conditions necessary to create an adequate enabling environment for **technology** transfer in the host countries, including issues such as development of human capital and legal framework.

2. The EC Party and the Signatory CARIFORUM States shall take measures, as appropriate, to prevent or control licensing practices or conditions pertaining to

intellectual property rights which may adversely affect the international transfer of **technology** and that constitute an abuse of intellectual property rights by right holders or an abuse of obvious information asymmetries in the negotiation of licences.

3. The EC Party shall facilitate and promote the use of incentives granted to institutions and enterprises in its territory for the transfer of **technology** to institutions and enterprises of the CARIFORUM States in order to enable the CARIFORUM States to establish a viable **technological** base. The EC Party shall endeavour to bring any known measures to the attention of the CARIFORUM EC Trade and Development Committee for discussion and review.

Article 148

Utility models

Requirements for protection

1. The EC Party and the Signatory CARIFORUM States may provide protection for any products or processes in any fields of **technology**, provided they are new, involve some degree of non-obviousness and are capable of industrial application.

25. United States – Oman RTA (in force since 01 Jan. 2009):

“CHAPTER FIFTEEN INTELLECTUAL PROPERTY RIGHTS

(...) ARTICLE 15.4: COPYRIGHT AND RELATED RIGHTS

(...) 7. (a) In order to provide adequate legal protection and effective legal remedies against the circumvention of effective **technological** measures that authors, performers, and producers of phonograms use in connection with the exercise of their rights and that restrict unauthorized acts in respect of their works, performances, and phonograms, each Party shall provide that any person who:

(i) circumvents without authority any effective **technological** measure that controls access to a protected work, performance, phonogram, or other subject matter; or

(ii) manufactures, imports, distributes, offers to the public, provides, or otherwise trafficks in devices, products, or components, or offers to the public or provides services, that:

(A) are promoted, advertised, or marketed for the purpose of circumvention of any effective **technological** measure;

(B) have only a limited commercially significant purpose or use other than to circumvent any effective **technological** measure; or

(C) are primarily designed, produced, or performed for the purpose of enabling or facilitating the circumvention of any effective **technological** measure,

shall be liable and subject to the remedies set out in Article 15.10.14. Each Party shall provide for criminal procedures and penalties to be applied when any person, other than a nonprofit library, archive, educational institution, or public noncommercial broadcasting entity, is found to have engaged willfully and for purposes of commercial advantage or private financial gain in any of the foregoing activities. Such criminal procedures and penalties shall include the application to such activities of the remedies and authorities listed in subparagraphs (a), (b), and (e) of Article 15.10.27 as applicable to infringements, mutatis mutandis.

(b) In implementing subparagraph (a), neither Party shall be obligated to require that the design of, or the design and selection of parts and components for, a consumer electronics, telecommunications, or computing product provide for a response to any particular **technological** measure, so long as the product does not otherwise violate any measures implementing subparagraph (a).

(d) Each Party shall confine exceptions and limitations to measures implementing subparagraph (a) to the following activities, which shall be applied to relevant measures in accordance with subparagraph (e):

(...) (ii) non infringing good faith activities, carried out by an appropriately qualified researcher who has lawfully obtained a copy, unfixed performance, or display of a work, performance, or phonogram and who has made a good faith effort to obtain authorization for such activities, to the extent necessary for the sole purpose of

research consisting of identifying and analyzing flaws and vulnerabilities of **technologies** for scrambling and descrambling of information;

(iii) the inclusion of a component or part for the sole purpose of preventing the access of minors to inappropriate online content in a **technology**, product, service, or device that itself is not prohibited under the measures implementing subparagraph (a)(ii);

(e) The exceptions and limitations to measures implementing subparagraph (a) for the activities set forth in subparagraph (d) may only be applied as follows, and only to the extent that they do not impair the adequacy of legal protection or the effectiveness of legal remedies against the circumvention of effective **technological** measures:

(i) Measures implementing subparagraph (a)(i) may be subject to exceptions and limitations with respect to each activity set forth in subparagraph (d).

(ii) Measures implementing subparagraph (a)(ii), as they apply to effective **technological** measures that control access to a work, performance, or phonogram, may be subject to exceptions and limitations with respect to activities set forth in subparagraph (d)(i), (ii), (iii), (iv), and (vi).

(iii) Measures implementing subparagraph (a)(ii), as they apply to effective **technological** measures that protect any copyright or any rights related to copyright, may be subject to exceptions and limitations with respect to activities set forth in subparagraph (d)(i) and (vi).

(f) For purposes of this paragraph, effective **technological** measure means any **technology**, device, or component that, in the normal course of its operation, controls access to a protected work, performance, phonogram, or other protected subject matter, or protects any copyright or any rights related to copyright.

ARTICLE 15.8: PATENTS

1. Subject to paragraph 2, each Party:

(a) shall make patents available for any invention, whether product or process, in all fields of **technology**, provided that it is new, involves an inventive step, and is capable of industrial application; and

(b) confirms that it shall make patents available for any new uses for, or new methods of using, a known product, including new uses and new methods for the treatment of particular medical conditions.

Liability for Service Providers and Limitations

29. For the purpose of providing enforcement procedures that permit effective action against any act of copyright infringement covered by this Chapter, including expeditious remedies to prevent infringements and criminal and civil remedies that constitute a deterrent to further infringements, each Party shall provide, consistent with the framework set out in this Article:

(...) (b) limitations in its law regarding the scope of remedies available against service providers for copyright infringements that they do not control, initiate, or direct, and that take place through systems or networks controlled or operated by them or on their behalf, as set forth in this subparagraph (b).

(...) (iv) With respect to functions referred to in clause (i)(B), the limitations shall be conditioned on the service provider:

(...) (C) not interfering with **technology** consistent with industry standards accepted in the Party's territory used at the originating site to obtain information about the use of the material, and not modifying its content in transmission to subsequent users; and"

26. United States – Peru RTA (in force since 01 Feb. 2009):

“Chapter Sixteen Intellectual Property Rights

Article 16.9: Patents

1. Each Party shall make patents available for any invention, whether a product or process, in all fields of **technology**, provided that the invention is new, involves an inventive step, and is capable of industrial application. For the purposes of this Article,

a Party may treat the terms “inventive step” and “capable of industrial application” as being synonymous with the terms “non-obvious” and “useful,” respectively.

Article 16.12: Promotion of **Innovation** and **Technological** Development

1. The Parties recognize the importance of promoting **technological innovation**, disseminating **technological** information, and building **technological** capacity, including, as appropriate, through collaborative scientific research projects between or among the Parties. Accordingly, the Parties will seek and encourage opportunities for science and **technology** cooperation and identify areas for such cooperation and, as appropriate, engage in collaborative scientific research projects.

2. The Parties shall give priority to collaborations that advance common goals in science, **technology**, and **innovation** and support partnerships between public and private research institutions and industry. Any such collaborative activities or transfer of **technology** shall be based on mutually agreed terms.”

27. Chile – Australia RTA (in force since 09 Mar. 2009):

“Chapter 17 - Intellectual Property

(...) Article 17.3:

General Provisions

(...) 2. Nothing in this Chapter shall prevent a Party from adopting appropriate measures to prevent:

(a) the abuse of intellectual property rights by right holders or the resort to practices that unreasonably restrain trade or adversely affect the international transfer of **technology**; and

(b) anti-competitive practices that may result from the abuse of intellectual property rights; provided that such measures are consistent with this Agreement.

PATENTS

Article

17.19: Availability of Patents

Each Party shall make patents available for any invention, whether a product or process, in all fields of **technology**, provided that the invention is new, involves an inventive step, and is capable of industrial application. For the purposes of this Article, a Party may treat the terms "inventive step" and "capable of industrial application" as synonymous with the terms "non-obvious" and "useful", respectively.”

28. Japan – Switzerland (Panama – Central America) RTA (in force since 01 Sep. 2009):

“Article 117

Patents

1. Subject to paragraphs 2 and 3, patents shall be available for any inventions, whether products or processes, in all fields of **technology**, including in the field of bi**technology**, provided that they are new, involve an inventive step and are capable of industrial application. Subject to paragraph 3, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of **technology** and whether products are imported or locally produced.”

29. Peru – China RTA (in force since 01 Mar. 2010):

“CHAPTER 11 INTELLECTUAL PROPERTY RIGHTS

Article 144: General Provisions

1. The Parties recognize the importance of intellectual property rights in promoting economic and social development, particularly in the globalization of **technological innovation** and trade, as well as the transfer and dissemination of **technology** to the mutual advantage of **technology** producers and users, and agree to encourage the development of social economic well-being, and trade.”

30. New Zealand – Malaysia RTA (in force since 01 Aug. 2010):

“CHAPTER ELEVEN INTELLECTUAL PROPERTY

(...) Article 11.2 Intellectual Property Principles

1. The Parties recognise the importance of intellectual property rights in promoting economic and social development, particularly in the new digital economy, technological innovation and trade.”

31. Hong Kong – New Zealand RTA (in force since 01 Jan. 2011):

“CHAPTER 11 INTELLECTUAL PROPERTY

(...) Article 3 – General Provisions

(...) 3. Subject to the international obligations that are applicable to each Party, the Parties affirm that each Party may:

(...) (c) establish provisions to facilitate the exercise of permitted acts where technological protection measures have been applied.”

32. Türkiye – Chile RTA (in force since 01 Mar. 2011):

“CHAPTER IV INTELLECTUAL PROPERTY

Article 35 Intellectual Property

1. The Parties recognize the importance of intellectual property in promoting economic and social development, technological innovation, as well as in promoting the transfer and dissemination of technology to the mutual advantage of technology producers and users, particularly in the new digital economy.

(...) 3. Nothing in this Chapter shall prevent a Party from adopting appropriate measures to prevent:

a) the abuse of intellectual property rights by right holders or the resort to practices that unreasonably restrain trade or adversely affect the international transfer of technology; and”

33. Colombia – EFTA²⁴⁰ RTA (in force since 01 Jul. 2011):

“CHAPTER 6

PROTECTION OF INTELLECTUAL PROPERTY

ARTICLE 6.1

General Provisions

(...) 5. In accordance with paragraph 2 of Article 8 of the TRIPS Agreement, Parties may take appropriate measures, provided that they are consistent with the provisions of this Agreement, if needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology.

(...)

ARTICLE 6.2

Basic Principles

1. In accordance with Article 7 of the TRIPS Agreement, the Parties recognise that the protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

2. The Parties recognise that technology transfer contributes to strengthen national capabilities with the aim to establish a sound and viable technological base.

3. The Parties recognise the impact of information and communication technologies on the creation and usage of literary and artistic works.

²⁴⁰ According to the WTO RTAs Database, EFTA in this case comprises: Iceland; Liechtenstein; Norway; Switzerland.

4. In accordance with paragraph 1 Article 8 of the TRIPS Agreement, the Parties may, in formulating or amending their laws and regulations, adopt measures necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and **technological** development, provided that such measures are consistent with the provisions of this Chapter.

ARTICLE 6.9

Patents

1. Patents shall be available for any inventions, whether products or processes, in all fields of **technology**, provided that they are new, involve an inventive step and are capable of industrial application. Subject to paragraph 3, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of **technology** and whether products are imported or locally produced.

ARTICLE 6.18

Promotion of Research, **Technological** Development and **Innovation**

1. The Parties acknowledge the importance of promoting research, **technological** development and **innovation**, of disseminating **technological** information, and of building and strengthening their **technological** capacities, and they will seek to co-operate in such areas, taking into account their resources.”

34. EU – Korea RTA (in force since 01 Jul. 2011):

“CHAPTER TEN

INTELLECTUAL PROPERTY

SECTION A

General provisions

(...) Article 10.3

Transfer of **technology**

1. The Parties agree to exchange views and information on their practices and policies affecting transfer of **technology**, both within their respective territories and with third countries. This shall in particular include measures to facilitate information flows, business partnerships, licensing and subcontracting. Particular attention shall be paid to the conditions necessary to create an adequate enabling environment for **technology** transfer in the host countries, including, inter alia, issues such as development of human capital and legal framework.

2. Each Party shall take measures, as appropriate, to prevent or control licensing practices or conditions pertaining to intellectual property rights which may adversely affect the international transfer of **technology** and which constitute an abuse of intellectual property rights by right holders.

(...)

Article 10.12

Protection of **technological** measures

1. Each Party shall provide adequate legal protection against the circumvention of any effective **technological** measures, which the person concerned carries out in the knowledge, or with reasonable grounds to know, that such person is pursuing that objective.

2. Each Party shall provide adequate legal protection against the manufacture, import, distribution, sale, rental, advertisement for sale or rental, or possession for commercial purposes, of devices, products or components, or the provision of services which:

(a) are promoted, advertised or marketed for the purpose of circumvention of;

(b) have only a limited commercially significant purpose or use other than to circumvent; or

(c) are primarily designed, produced, adapted or performed for the purpose of enabling or facilitating the circumvention of, any effective **technological** measures.

3. For the purposes of this Agreement, **technological** measure means any **technology**, device or component that, in the normal course of its operation, is designed to prevent or restrict acts, in respect of works or other subject matter, which are not authorised by the right holder of any copyright or any right related to copyright as provided for

by each Party's legislation. **Technological** measures shall be deemed effective where the use of a protected work or other subject matter is controlled by the right holders through the application of an access control or protection process, such as encryption, scrambling or other transformation of the work or other subject matter, or a copy control mechanism, which achieves the objective of protection.
(...)

Article 10.64

Liability of online service providers: "caching"

1. Where an information society service is provided that consists of the transmission in a communication network of information provided by a recipient of the service, the Parties shall ensure that the service provider is not liable for the automatic, intermediate and temporary storage of that information, performed for the sole purpose of making more efficient the information's onward transmission to other recipients of the service upon their request, on condition that the provider:

(...)

(d) does not interfere with the lawful use of **technology**, widely recognised and used by industry, to obtain data on the use of the information; and"

35. Peru – EFTA²⁴¹ RTA (in force since 01 Jul. 2011):

“CHAPTER 6

PROTECTION OF INTELLECTUAL PROPERTY

(...) ARTICLE 6.2

Basic Principles

1. In accordance with Article 7 of the TRIPS Agreement, the Parties recognise that the protection and enforcement of intellectual property rights should contribute to the promotion of **technological innovation** and to the transfer and dissemination of **technology**, to the mutual advantage of producers and users of **technological** knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

2. The Parties recognise that **technology** transfer contributes to strengthen national capabilities with the aim to establish a sound and viable **technological** base.

3. The Parties recognise the impact of information and communication **technologies** on the creation and usage of literary and artistic works.

4. In accordance with paragraph 1 of Article 8 of the TRIPS Agreement, the Parties may, in formulating or amending their laws and regulations, adopt measures necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and **technological** development, provided that such measures are consistent with the provisions of this Chapter.

5. In accordance with paragraph 2 of Article 8 of the TRIPS Agreement, Parties may take appropriate measures, provided that they are consistent with the provisions of this Agreement, if needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of **technology**.

ARTICLE 6.9

Patents

1. Patents shall be available for any inventions, whether products or processes, in all fields of **technology**, provided that they are new, involve an inventive step and are capable of industrial application. Subject to paragraph 3, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of **technology** and whether products are imported or locally produced.

ARTICLE 6.18

Promotion of Research, **Technological** Development and **Innovation**

²⁴¹ According to the WTO RTAs Database, EFTA in this case comprises: Iceland; Liechtenstein; Norway; Switzerland.

1. The Parties acknowledge the importance of promoting research, **technological** development and **innovation**, of disseminating **technological** information, and of building and strengthening their **technological** capacities, and they will seek to co-operate in such areas, taking into account their resources.
2. Co-operation in those fields, between Peru and Switzerland, may be based, in particular, on the respective Letters of Intent between the State Secretariat for Education and Research of the Federal Department of Home Affairs of the Swiss Confederation and the Consejo Nacional de Ciencia, **Tecnología** e **Innovación** Tecnológica (CONCYTEC) of 28 December 2006.
- (...) 5. Any proposal or inquiry regarding scientific and **technological** collaboration between the Parties shall be directed to any of the Parties through the contact points set out in Annex XII (Contact Points for Scientific Collaboration).”

36. China – Costa Rica RTA (in force since 01 Aug. 2011):

“Chapter 10 Intellectual Property

Article 109: Principles

1. The Parties recognize the importance of intellectual property rights in promoting economic and social development, particularly in the globalization of **technological innovation**, science and trade, as well as the transfer and dissemination of knowledge and **technology** to the mutual advantage of **technology** producers and users, and agree to encourage the development of socio-economic welfare and trade.

(...)

Article 110: General Provisions

1. Each Party reaffirms its commitments established in existing international agreements in the field of intellectual property rights, to which both are parties, including the TRIPS Agreement.
2. Each Party shall establish and maintain transparent intellectual property rights regimes and systems that provide certainty over the protection and enforcement of intellectual property rights; and facilitate international trade through the dissemination of ideas, **technology**, science and creative works.
3. The Parties will prevent practices which constitute an abuse of intellectual property rights by right holders, or unreasonably restrain competition, or that may unreasonably impede or limit **technology** transfer.

Article 113: Technical **Innovation** and Transfer of **Technology**

1. The Parties recognize the importance of **technology** and knowledge transfer as a tool to promote **innovation** and creative works in order to achieve economic growth.
2. The protection and enforcement of intellectual property rights in each Party should contribute to the promotion of **technological innovation** and the transfer and dissemination of **technology**. Subject to domestic laws and regulations, the Parties may further discuss the possibility of providing incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging **technology** transfer to the other Party.”

37. Japan – Peru RTA (in force since 01 Mar. 2012):

“Chapter 11

Intellectual Property Rights

Article 188

Other Considerations

1. The protection and enforcement of intellectual property rights should contribute to the promotion of **technological innovation** and to the transfer and dissemination of **technology**, to the mutual advantage of producers and users of **technological** knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.”

38. Korea – United States RTA (in force since 15 Mar. 2012):

“CHAPTER EIGHTEEN INTELLECTUAL PROPERTY RIGHTS

ARTICLE 18.4: COPYRIGHT AND RELATED RIGHTS

(...) 7. (a) In order to provide adequate legal protection and effective legal remedies against the circumvention of effective **technological** measures that authors, performers, and producers of phonograms use in connection with the exercise of their rights and that restrict unauthorized acts in respect of their works, performances, and phonograms, each Party shall provide that any person who:

(i) knowingly, or having reasonable grounds to know, circumvents without authority any effective **technological** measure that controls access to a protected work, performance, phonogram, or other subject matter; or

(ii) manufactures, imports, distributes, offers to the public, provides, or otherwise traffics in devices, products, or components, or offers to the public or provides services, that:

(A) are promoted, advertised, or marketed by that person, or by another person acting in concert with, and with the knowledge of, that person, for the purpose of circumvention of any effective **technological** measure;

(B) have only a limited commercially significant purpose or use other than to circumvent any effective **technological** measure; or

(C) are primarily designed, produced, or performed for the purpose of enabling or facilitating the circumvention of any effective **technological** measure,

shall be liable and subject to the remedies set out in Article 18.10.13. Each Party shall provide for criminal procedures and penalties to be applied when any person, other than a nonprofit library, archive, educational institution, or public noncommercial broadcasting entity, is found to have engaged willfully and for purposes of commercial advantage or private financial gain in any of the foregoing activities. Such criminal procedures and penalties shall include the application to such activities of the remedies and authorities listed in subparagraphs (a), (b), and (e) of Article 18.10.27 as applicable to infringements, mutatis mutandis.

(b) In implementing subparagraph (a), neither Party shall be obligated to require that the design of, or the design and selection of parts and components for, a consumer electronics, telecommunications, or computing product provide for a response to any particular **technological** measure, so long as the product does not otherwise violate any measures implementing subparagraph (a).

(...)

(d) Each Party shall confine exceptions and limitations to measures implementing subparagraph (a) to the following activities, which shall be applied to relevant measures in accordance with subparagraph (e):

(...) (ii) non infringing good faith activities, carried out by an appropriately qualified researcher who has lawfully obtained a copy, unfixed performance, or display of a work, performance, or phonogram and who has made a good faith effort to obtain authorization for such activities, to the extent necessary for the sole purpose of research consisting of identifying and analyzing flaws and vulnerabilities of **technologies** for scrambling and descrambling of information; (iii) the inclusion of a component or part for the sole purpose of preventing the access of minors to inappropriate online content in a **technology**, product, service or device that itself is not prohibited under the measures implementing subparagraph (a)(ii);

(...)

(e) The exceptions and limitations to measures implementing subparagraph (a) for the activities set forth in subparagraph (d) may only be applied as follows, and only to the extent that they do not impair the adequacy of legal protection or the effectiveness of legal remedies against the circumvention of effective **technological** measures:

(i) Measures implementing subparagraph (a)(i) may be subject to exceptions and limitations with respect to each activity set forth in subparagraph (d).

(ii) Measures implementing subparagraph (a)(ii), as they apply to effective **technological** measures that control access to a work, performance, or phonogram, may be subject to exceptions and limitations with respect to activities set forth in subparagraph (d)(i), (ii), (iii), (iv), and (vi).

(iii) Measures implementing subparagraph (a)(ii), as they apply to effective **technological** measures that protect any copyright or any rights related to copyright, may be subject to exceptions and limitations with respect to activities set forth in subparagraph (d)(i) and (vi).

(f) Effective **technological** measure means any **technology**, device, or component that, in the normal course of its operation, controls access to a protected work, performance, phonogram, or other protected subject matter, or protects any copyright or any rights related to copyright.

(...) ARTICLE 18.8: PATENTS

1. Each Party shall make patents available for any invention, whether a product or process, in all fields of **technology**, provided that the invention is new, involves an inventive step, and is capable of industrial application. In addition, each Party confirms that patents shall be available for any new uses or methods of using a known product.

(...) ARTICLE 18.10: ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS

(...) Liability for Service Providers and Limitations

30. For the purpose of providing enforcement procedures that permit effective action against any act of copyright infringement covered by this Chapter, including expeditious remedies to prevent infringements and criminal and civil remedies that constitute a deterrent to further infringements, each Party shall provide, consistent with the framework set out in this Article:

(...) (b) limitations in its law regarding the scope of remedies available against service providers for copyright infringements that they do not control, initiate, or direct, and that take place through systems or networks controlled or operated by them or on their behalf, as set forth in this subparagraph (b).

(...) (iv) With respect to functions referred to in clause (i)(B), the limitations shall be conditioned on the service provider:

(...) (C) not interfering with **technology** consistent with industry standards accepted in the Party's territory used at the originating site to obtain information about the use of the material, and not modifying its content in transmission to subsequent users; and"

39. Peru – Panama RTA (in force since 01 May 2012):

“Capítulo 9 Propiedad Intelectual

Artículo 9.1: Principios Básicos

1. Las Partes reconocen que la protección y observancia de los derechos de propiedad intelectual deberán contribuir a la generación de conocimiento, la promoción de la **innovación**, transferencia y difusión de **tecnología** y al progreso cultural, en beneficio recíproco de los productores y de los usuarios de conocimientos **tecnológicos** y culturales, favoreciendo el desarrollo del bienestar social y económico y el balance de derechos y obligaciones.

(...)

Artículo 9.9: Cooperación y Ciencia y **Tecnología**

1. Las Partes intercambiarán información y material en proyectos de educación y disseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

(...) (c) promover el diálogo y la cooperación con relación a la ciencia, la **tecnología**, el emprendimiento y la **innovación**; y

(d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo **tecnológico**, el emprendimiento y la **innovación**, así como la importancia de disseminar la información tecnológica y de crear y fortalecer sus capacidades **tecnológicas**; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la **innovación**, el emprendimiento, la transferencia y la difusión de **tecnología** entre las

Partes, dirigidos, entre otros, a empresas, universidades, centros de investigación y centros **tecnológicos**.

4. Las actividades de cooperación en ciencia y **tecnología** podrán adoptar, entre otras, las siguientes formas:

(a) participación en proyectos conjuntos de educación, investigación, desarrollo **tecnológico** e **innovación**; (...)

7. Las Partes podrán realizar las actividades de cooperación respecto de:

(...) (g) promover la asistencia técnica y capacitación para la implementación de la **innovación** y transferencia **tecnológica** en artesanías.

El plan de cooperación específico se elaborará de manera conjunta entre:

(a) la Dirección General de Artesanías Nacionales del Ministerio de Comercio e Industrias, por parte de Panamá; y

(b) la Dirección Nacional de Artesanías del Ministerio de Comercio Exterior y de Turismo, por parte del Perú.

Dichas entidades definirán las actividades del plan de cooperación, el financiamiento y su implementación.

8. Cada Parte designa como entidades de contacto responsables del cumplimiento de los objetivos de este Artículo, y de facilitar el desarrollo de los proyectos de colaboración y cooperación en investigación, **innovación** y desarrollo **tecnológico**, a las siguientes:

(a) en el caso de Panamá, la Secretaría Nacional de Ciencia, **Tecnología** e Innovación (SENACYT) y la Autoridad Nacional para la Innovación Gubernamental (AIG); y

(b) en el caso del Perú, el Consejo Nacional de Ciencia, **Tecnología** e **Innovación Tecnológica** (CONCYTEC), (...).”

40. United States – Colombia RTA (in force since 15 May 2012):

“Chapter Sixteen Intellectual Property Rights

Article 16.12: Promotion of **Innovation** and **Technological** Development

1. The Parties recognize the importance of promoting **technological innovation**, disseminating **technological** information, and building **technological** capacity, including, as appropriate, through collaborative scientific research projects between or among the Parties. Accordingly, the Parties will seek and encourage opportunities for science and **technology** cooperation and identify areas for such cooperation and, as appropriate, engage in collaborative scientific research projects.

2. The Parties shall give priority to collaborations that advance common goals in science, **technology**, and **innovation** and support partnerships between public and private research institutions and industry. Any such collaborative activities or transfer of **technology** shall be based on mutually agreed terms.”

41. Mexico – Central America RTA (in force since 01 Sep. 2012):

“Capítulo 16 - Propiedad Intelectual

Artículo 16.5: Control de Prácticas y Condiciones Abusivas o Contrarias a la Competencia

Siempre que sean compatibles con lo establecido en este Capítulo, cada Parte podrá aplicar medidas apropiadas para prevenir el abuso de los derechos de propiedad intelectual por sus titulares o el recurso a prácticas que limiten de manera injustificable el comercio o redunden en detrimento de la transferencia internacional de **tecnología**.

Artículo 16.6: Cooperación Técnica y Transferencia de **Tecnología**

1. Las Partes reconocen la importancia de la cooperación técnica que facilite la aplicación de las disposiciones de este Capítulo y asegure una protección eficaz y adecuada de los derechos de propiedad intelectual, para lo cual las Partes cooperarán sobre bases de equidad y beneficio recíproco, en los términos y condiciones que sus autoridades competentes acuerden mutuamente. Esta cooperación podrá incluir lo siguiente:

(...)”

42. United States – Panama RTA (in force since 21 Dec. 2012):

“Article 15.5: Obligations Pertaining to Copyright and Related Rights

(...) 7. (a) In order to provide adequate legal protection and effective legal remedies against the circumvention of effective **technological** measures that authors, performers, and producers of phonograms use in connection with the exercise of their rights and that restrict unauthorized acts in respect of their works, performances, and phonograms, each Party shall provide that any person who:

(i) circumvents without authority any effective **technological** measure that controls access to a protected work, performance, phonogram, or other subject matter; or
(ii) manufactures, imports, distributes, offers to the public, provides, or otherwise traffics in devices, products, or components, or offers to the public or provides services, that:

(A) are promoted, advertised, or marketed for the purpose of circumvention of any effective **technological** measure; or

(B) have only a limited commercially significant purpose or use other than to circumvent any effective **technological** measure; or

(C) are primarily designed, produced, or performed for the purpose of enabling or facilitating the circumvention of any effective **technological** measure, shall be liable and subject to the remedies provided for in Article 15.11.14. Each Party shall provide for criminal procedures and penalties to be applied when any person, other than a nonprofit library, archive, educational institution, or public non-commercial broadcasting entity, is found to have engaged willfully and for purposes of commercial advantage or private financial gain in any of the foregoing activities.

(b) In implementing subparagraph (a), neither Party shall be obligated to require that the design of, or the design and selection of parts and components for, a consumer electronics, telecommunications, or computing product provide for a response to any particular **technological** measure, so long as the product does not otherwise violate any measures implementing subparagraph (a).

(...)

(d) Each Party shall confine exceptions to any measures implementing the prohibition in subparagraph (a)(ii) on **technology**, products, services, or devices that circumvent effective **technological** measures that control access to, and, in the case of clause (i), that protect any of the exclusive rights of copyright or related rights in, a protected work, performance, or phonogram referred to in subparagraph (a)(ii), to the following activities, provided that they do not impair the adequacy of legal protection or the effectiveness of legal remedies against the circumvention of effective **technological** measures:

Article 15.9: Patents

1. Each Party shall make patents available for any invention, whether a product or a process, in all fields of **technology**, provided that the invention is new, involves an inventive step, and is capable of industrial application. For purposes of this Article, a Party may treat the terms “inventive step” and “capable of industrial application” as being synonymous with the terms “non-obvious” and “useful,” respectively.”

43. Malaysia – Australia RTA (in force since 01 Jan. 2013):

“CHAPTER 13

INTELLECTUAL PROPERTY

Article 13.11

Patents

1. Subject to the exceptions set out in Article 27 of the TRIPS Agreement, each Party shall make patents available for any invention, whether a product or process, in all fields of **technology**, provided that the invention is new, involves an inventive step, and is capable of industrial application.

Article 13.14

Effective **Technological** Measures

1. Each Party shall provide for civil remedies where a person knowingly, or having reasonable grounds to know:

(a) circumvents an effective **technological** measure; or (...)

2. Each Party shall provide, at a minimum, for criminal procedures and penalties where for the purpose of commercial advantage or financial gain, a person intentionally, knowingly or recklessly:

(a) circumvents an effective **technological** measure; or

(b) manufactures, imports, distributes, offers to the public, provides, or otherwise deals in a circumvention device or circumvention service;

unless the activities described in subparagraphs (a) or (b) are authorised by the copyright owner or otherwise permitted by exceptions made in accordance with paragraph 3.”

44. EU – Colombia, Ecuador and Peru RTA (in force since 01 Mar. 2013):

“TITLE VII

INTELECTUAL PROPERTY

CHAPTER 1

General provisions

Article 195

Objectives

The objectives of this Title are to:

(a) promote **innovation** and creativity and facilitate the production and commercialisation of **innovative** and creative products between the Parties; and

(b) achieve an adequate and effective level of protection and enforcement of intellectual property rights that contributes to transfer and dissemination of **technology** and favour social and economic welfare and the balance between the rights of the holders and the public interest.

Article 196

Nature and Scope of the Obligations

(...)

3. The Parties recognise the need to maintain a balance between the rights of intellectual property holders and the interest of the public, particularly regarding education, culture, research, public health, food security, environment, access to information and **technology** transfer.

(...)

Article 197

General Principles

(...) 5. In accordance with the TRIPS Agreement, no provision of this Title will prevent a Party from adopting any measure necessary to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of **technology**.

6. The Parties recognise that **technology** transfer contributes to the strengthening of national capabilities, with the aim to establish a sound and viable **technological** base.

7. The Parties recognise the impact of information and communication **technologies** on the usage of literary and artistic works, artistic performances, phonogram productions and broadcasts and, therefore, the need to provide adequate protection of copyright and related rights in the digital environment.

CHAPTER 2

Protection of biodiversity and traditional knowledge

Article 201

(...) 6. The Parties shall cooperate, subject to domestic legislation and international law, to ensure that intellectual property rights are supportive of, and do not run counter to, their rights and obligations under the CBD, in so far as genetic resources and associated traditional knowledge of the indigenous and local communities located in

their respective territories are concerned. The Parties reaffirm their rights and obligations under Article 16 paragraph 3 of the CBD in relation to countries providing genetic resources, to take measures with the aim to provide access to and transfer of **technology** which makes use of such resources, upon mutually agreed terms. This provision shall apply without prejudice to the rights and obligations under Article 31 of the TRIPS Agreement.

Section 3

Copyright and related rights

(...) Article 221

Protection of **Technological** Measures

The Parties shall comply with the provisions of Article 11 of the WCT and Article 18 of the WPPT.

CHAPTER 4

Enforcement of intellectual property rights

Section 3

Liability of intermediary Services Providers

(...) Article 252

Liability of Intermediary Service Providers: 'caching'

1. Where the service that is provided consists of the transmission in a communication network of information provided by a recipient of the service, each Party shall ensure that the service provider is not liable for the automatic, intermediate and temporary storage of that information, performed for the sole purpose of making more efficient the onward transmission of the information to other recipients of the service upon their request, on condition that such provider:

(...) (d) does not interfere with the lawful use of **technology**, widely recognised and used by industry, to obtain data on the use of the information; and (...)

(...)

CHAPTER 5

Transfer of **technology**

Article 255

1. The Parties agree to exchange experiences and information on their domestic and international practices and policies affecting transfer of **technology** (76). Such exchange shall include, in particular, measures to facilitate information flows, business partnerships, licensing and subcontracting deals on a voluntary basis. Particular attention shall be paid to the conditions necessary to create an adequate enabling environment for the promotion of lasting relations between the scientific communities of the Parties, the intensification of activities to promote linkage, **innovation** and **technology** transfer between the Parties, including issues such as the relevant legal framework and development of human capital.

2. The Parties shall facilitate and encourage research, **innovation**, **technological** development activities, transfer and diffusion of **technology** between them, aimed at, among others, enterprises, governmental entities, universities, research and **technological** centres. The Parties will promote capacity building, exchange and training of personnel in this area to the extent of their possibilities.

(...) 3. The Parties shall encourage mechanisms for the participation of entities and experts of their respective systems of science, **technology** and **innovation**, in projects and joint research, development and **innovation** networks, with the purpose of strengthening their capacities in science, **technology** and **innovation**. Those mechanisms may include:

(a) joint research, **innovation** and **technological** development activities as well as educational projects;

(b) visits and exchanges of scientists, researchers, trainees, and technical experts;

(c) joint organisation of scientific seminars, conferences, symposia and workshops, as well as the participation of experts in those activities;

(d) joint research, development, and **innovation** networks; (...)

4. The Parties should consider establishing mechanisms for the exchange of information about research, development and **innovation** projects financed from public resources.

5. The EU Party shall facilitate and promote the use of incentives granted to institutions and enterprises in its territory for the transfer of **technology** to institutions and enterprises from the signatory Andean Countries in order to enable them to establish a viable **technological** base.

6. Each Party shall make its best efforts to evaluate the possibilities to facilitate the entry and exit from its territory of data and equipment related to or used in research, **innovation** and **technological** development activities by the Parties under the provisions of this Article, pursuant to the legislative and regulatory provisions applicable in the territory of each Party, including the regimes regarding export control of dual use products and its related legislation.”

45. Korea – Türkiye RTA - The Framework Agreement (Goods: in force since 01 May 2013; Services: in force since 01 Aug. 2018):

“FRAMEWORK AGREEMENT:

(...) CHAPTER 2

INTELLECTUAL PROPERTY RIGHTS

ARTICLE 2.1: GENERAL PROVISIONS

1. The Parties recognise the importance of intellectual property in promoting economic and social development, **technological innovation**, and the transfer and dissemination of **technology** to the mutual advantage of **technology** producers and users, particularly in the new digital economy.

(...) 3. The objectives of this Chapter are:

(a) to facilitate the production and commercialisation of **innovative** and creative products in the Parties; and

(b) to achieve an adequate and effective level of protection and enforcement of intellectual property rights.

(...) 5. The Parties agree to exchange views and information on their practices and policies affecting transfer of **technology**, both within their respective territories and with non-parties. This shall in particular include measures to facilitate information flows, business partnerships, licensing and subcontracting. Particular attention shall be paid to the conditions necessary to create an adequate enabling environment for technology transfer in the host countries, including, inter alia, issues such as development of human capital and legal framework.

6. Nothing in this Chapter shall prevent a Party from adopting appropriate measures to prevent the abuse of intellectual property rights by right holders or the resort to practices that unreasonably restrain trade or adversely affect the international transfer of **technology** provided that such measures are consistent with the Turkey-Korea FTA.

ARTICLE 2.2: COPYRIGHT AND RELATED RIGHTS

(...) Protection of **Technological** Measures

2. Each Party shall provide adequate legal protection and effective legal remedies against the circumvention of effective **technological** measures that are used by right holders of any copyright or related rights in connection with the exercise of their rights under each Party’s domestic laws and that restrict acts, in respect of their works or other subject matters, which are not authorised by the right holders of copyright or related rights concerned or permitted by the law of a Party.”

46. Costa Rica – Peru RTA (in force since 01 Jun. 2013):

“Capítulo 9 Propiedad Intelectual

1. Las Partes reconocen que la protección y observancia de los derechos de propiedad intelectual deberán contribuir a la generación de conocimiento, la promoción de la **innovación**, transferencia y difusión de **tecnología** y al progreso cultural, en beneficio recíproco de los productores y de los usuarios de conocimientos **tecnológicos** y culturales, favoreciendo el desarrollo del bienestar social y económico y el balance de derechos y obligaciones. (...)

Artículo 9.8: Cooperación y Ciencia y **Tecnología**

1. Las Partes intercambiarán información y material en proyectos de educación y diseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

- (a) mejorar y fortalecer los sistemas administrativos de la propiedad intelectual para promover el registro eficiente de los derechos de propiedad intelectual;
- (b) estimular la creación y desarrollo de la propiedad intelectual dentro del territorio de las Partes, particularmente de los pequeños inventores y creadores, así como de las micro, pequeñas y medianas empresas;
- (c) promover el diálogo y la cooperación con relación a la ciencia, la **tecnología**, el emprendimiento y la **innovación**; y
- (d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo **tecnológico**, el emprendimiento y la **innovación**, así como la importancia de diseminar la información **tecnológica** y de crear y fortalecer sus capacidades **tecnológicas**; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la **innovación**, el emprendimiento, la transferencia y la difusión de **tecnología** entre las Partes, dirigidos, entre otros, a empresas, universidades, centros de investigación y centros **tecnológicos**.

4. Las actividades de cooperación en ciencia y **tecnología** podrán adoptar, entre otras, las siguientes formas:

- (a) participación en proyectos conjuntos de educación, investigación, desarrollo **tecnológico** e **innovación**; (...)

6. Cada Parte designa como entidades de contacto responsables del cumplimiento de los objetivos de este Artículo, y de facilitar el desarrollo de los proyectos de colaboración y cooperación en investigación, **innovación** y desarrollo tecnológico, a las siguientes:

- (a) Costa Rica: el Ministerio de Comercio Exterior, en coordinación con el Ministerio de Justicia y Paz y el Ministerio de Ciencia y **Tecnología**; y
- (b) el Perú: el Consejo Nacional de Ciencia, **Tecnología** e **Innovación** Tecnológica (CONCYTEC), o sus sucesores.”

47. Costa Rica – Singapore RTA (in force since 01 Jul. 2013):

“Chapter 13

Intellectual Property and **Innovation**

Article 13.1: Principles

1. The Parties recognize the importance of intellectual property rights in promoting economic and social development, particularly in the globalization of **technological innovation** and trade, science, as well as the transfer and dissemination of knowledge and **technology** to the mutual advantage of **technology** producers and users, and agree to encourage the development of social economic well-being and trade through these means.

2. The Parties recognize the need to achieve a balance between the rights of right holders and the legitimate interests of users and the community with regard to protected subject matter.”

48. EU – Central America²⁴² RTA (in force since 01 Aug. 2013):

“PART IV
TRADE
TITLE I – INITIAL PROVISIONS

(...) Article 78

Objectives

The objectives of Part IV of this Agreement are:

(...) (g) the adequate and effective protection of intellectual property rights, in accordance with international obligations in force between the Parties, so as to ensure the balance between the rights of the right-holders and public interest, taking into consideration the differences between the Parties and the promotion of **technology** transfer between the regions; (...)

TITLE VI
INTELLECTUAL PROPERTY
CHAPTER 1

Objectives and principles

Article 228

Objectives

The objectives of this Title are to:

(...) (b) promote and encourage **technology** transfer between both regions in order to enable the creation of a sound and viable **technological** base in the Republics of the CA Party; and

Article 231

Transfer of **Technology**

1. The Parties agree to exchange views and information on their practices and policies affecting transfer of **technology**, both within their respective regions and with third countries, with a view to creating measures to facilitate information flows, business partnerships, and the award of licenses and subcontracting. Particular attention shall be paid to the conditions necessary to create an adequate enabling environment for **technology** transfer between the Parties, including, among others, issues such as development of human capital and legal framework.

2. The Parties recognise the importance of education and professional training for the transfer of **technology** which may be accomplished through academic, professional and/or business exchange programs directed to the transmission of knowledge between the Parties.

3. The Parties shall take measures, as appropriate, to prevent or control licensing practices or conditions pertaining to intellectual property rights which may adversely affect the international transfer of **technology** and that constitute an abuse of intellectual property rights by right holders or an abuse of obvious asymmetries of information in the negotiation of licences.

4. The Parties recognise the importance of creating mechanisms that strengthen and promote investment in the Republics of the CA Party, especially in **innovative** and high-tech sectors. The EU Party shall make its best efforts to offer to the institutions and enterprises in its territories incentives destined to promote and to favour the transfer of **technology** to institutions and enterprises of the Republics of the CA Party, in such a way as to allow them to establish a viable **technological** platform.

CHAPTER 4

Institutional provisions

Article 274

Sub-Committee on Intellectual Property

(...) 2. The functions of the Sub-Committee shall include:

(...) (c) promoting **technology** transfer from the EU Party to the Republics of the CA Party;

²⁴² According to the WTO RTAs Database, “Central America” in this specific case refers to: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

(d) defining the priority areas in which initiatives shall be directed in the areas of **technology** transfer, research and development and the build-up of human capital;
(e) keeping an inventory or a registry of the programs, activities or initiatives in progress, in the field of intellectual property, with emphasis on transfer of **technology**.”

49. EU – Ukraine RTA (in force since 01 Ap. 2014):

“Section 3
Enforcement of Intellectual property rights
(...) Sub-section 2
Liability of intermediary service providers
(...) Article 246
Liability of intermediary service providers: "Caching"
1. Where an information society service that is provided consists of the transmission in a communication network of information provided by a recipient of the service, the Parties shall ensure that the service provider is not liable for the automatic, intermediate and temporary storage of that information, performed for the sole purpose of making more efficient the information's onward transmission to other recipients of the service at their request, on condition that:
(...) (d) the provider does not interfere with the lawful use of **technology**, widely recognised and used by industry, to obtain data on the use of the information; and
(...)”

50. Iceland – China RTA (in force since 01 Jul. 2014):

“CHAPTER 6 INTELLECTUAL PROPERTY RIGHTS
Article 63
General Provisions
1. The Parties recognise the importance of intellectual property rights in promoting economic and social development, particularly in the new digital economy, **technological innovation** and trade, as well as the need to achieve a balance between the rights of right holders and the legitimate interests of users and the community with regard to protected subject matter.
(...) 3. Each Party shall establish and maintain transparent intellectual property rights regimes and systems that:
(...) (c) facilitate international trade through the dissemination of ideas, **technology** and creative works.”

51. Switzerland – China RTA (in force since 01 Jul. 2014):

“CHAPTER 11
PROTECTION OF INTELLECTUAL PROPERTY RIGHTS
SECTION I
GENERAL PROVISIONS
ARTICLE 11.1
Intellectual Property Rights
(...) 4. The Parties recognise the importance of protection and enforcement of intellectual property rights in order to incentivise research, development and creative activity which will promote economic and social development, as well as the dissemination of knowledge and **technology**. The Parties recognise that the protection and enforcement of intellectual property rights should strike a balance between the legitimate interest of the right owners and the public at large.
5. The Parties may take appropriate measures provided that they are consistent with the provisions of this Agreement and their international obligations to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect **technology** transfer. (...)

ARTICLE 11.8
Patents

1. The Parties shall, in their national laws, at least ensure adequate and effective patent protection for inventions in all fields of **technology**, including in the field of **biotechnology** and herbal medicine, provided that they are new, involve an inventive step and are capable of industrial application.”

52. EFTA – Gulf Cooperation Council (GCC)²⁴³ RTA (in force since 01 Jul. 2014):

“CHAPTER 5 INTELLECTUAL PROPERTY RIGHTS

ARTICLE 6.20

Information **Technology**

1. The Parties shall, to the extent possible, endeavour to use electronic means of communication to permit efficient dissemination of information on government procurement, particularly as regards tender opportunities offered by entities, while respecting the principles of transparency and non-discrimination.

2. When conducting covered procurement by electronic means, a procuring entity shall:

(a) ensure that the procurement is conducted using generally available and interoperable information **technology** products and software, including those related to authentication and encryption of information; and

(b) maintain mechanisms that ensure the integrity of, and prevent inappropriate access to, requests for participation and tenders.”

53. EU – Georgia RTA (in force since 01 Sep. 2014):

“CHAPTER 9

Intellectual property rights

(...) Section 2

Standards concerning intellectual property rights

(...) Article 160

Protection of **technological** measures

1. Each Party shall provide adequate legal protection against the circumvention of any effective **technological** measures, which the person concerned carries out in the knowledge, or with reasonable grounds to know, that he or she is pursuing that objective.

2. Each Party shall provide adequate legal protection against the manufacture, import, distribution, sale, rental, advertisement for sale or rental, or possession for commercial purposes of devices, products or components, or the provision of services which:

(a) are promoted, advertised or marketed for the purpose of circumvention of any effective **technological** measures;

(b) have only a limited commercially significant purpose or use other than to circumvent any effective **technological** measures, or

(c) are primarily designed, produced, adapted or performed for the purpose of enabling or facilitating the circumvention of any effective **technological** measures.

3. For the purposes of this Agreement, the expression ‘**technological** measures’ means any **technology**, device or component that, in the normal course of its operation, is designed to prevent or restrict acts, in respect of works or other protected subject matter, which are not authorised by the right holder of any copyright or related right as provided for by domestic law. **Technological** measures shall be deemed ‘effective’ where the use of a work or other protected subject matter is controlled by the right holders through application of an access control or protection process, such as encryption, scrambling or other transformation of the work or other subject matter or a copy control mechanism, which achieves the protection objective.

Article 162

Exceptions and limitations

(...) 2. Each Party shall provide that temporary acts of reproduction referred to in Articles 155 to 158 of this Agreement, which are transient or incidental, which are an

²⁴³ According to the WTO RTAs Database, GCC is comprised by: Bahrain, Kingdom of; Kuwait, the State of; Oman; Qatar; Saudi Arabia, Kingdom of; United Arab Emirates.

integral and essential part of a **technological** process and the sole purpose of which is to enable:

- (a) a transmission in a network between third parties by an intermediary, or
- (b) a lawful use of a work or other protected subject matter to be made, and which have no independent economic significance, shall be exempted from the reproduction right provided for in Articles 155 to 158 of this Agreement.”

54. EU – Moldova RTA (in force since 01 Sep. 2014):

“CHAPTER 9

Intellectual property rights

(...) Section 2

Standards concerning intellectual property rights

Sub-section 1

Copyright and related rights

(...) article 287

Protection of **technological** measures

1. Each Party shall provide adequate legal protection against the circumvention of any effective **technological** measures, which the person concerned carries out in the knowledge, or with reasonable grounds to know, that he/she is pursuing that objective.

2. Each Party shall provide adequate legal protection against the manufacture, import, distribution, sale, rental, advertisement for sale or rental, or possession for commercial purposes of devices, products or components, or the provision of services which:

(a) are promoted, advertised or marketed for the purpose of circumvention of any effective **technological** measures;

(b) have only a limited commercially significant purpose or use other than to circumvent any effective **technological** measures; or

(c) are primarily designed, produced, adapted or performed for the purpose of enabling or facilitating the circumvention of any effective **technological** measures.

3. For the purposes of this Agreement, the expression ‘**technological** measures’ means any **technology**, device or component that, in the normal course of its operation, is designed to prevent or restrict acts, in respect of works or other protected subject matter, which are not authorised by the right holder of any copyright or related right as provided for by domestic law. **Technological** measures shall be deemed ‘effective’ where the use of a work or other protected subject matter is controlled by the right holders through the application of an access control or protection process, such as encryption, scrambling or other transformation of the work or other subject matter or a copy control mechanism, which achieves the protection objective.”

55. EU – Georgia RTA (in force since 01 Sep. 2014):

“Section 2

Standards concerning intellectual property rights

(...) Article 160

Protection of **technological** measures

1. Each Party shall provide adequate legal protection against the circumvention of any effective **technological** measures, which the person concerned carries out in the knowledge, or with reasonable grounds to know, that he or she is pursuing that objective.

2. Each Party shall provide adequate legal protection against the manufacture, import, distribution, sale, rental, advertisement for sale or rental, or possession for commercial purposes of devices, products or components, or the provision of services which:

(a) are promoted, advertised or marketed for the purpose of circumvention of any effective **technological** measures;

(b) have only a limited commercially significant purpose or use other than to circumvent any effective **technological** measures, or

(c) are primarily designed, produced, adapted or performed for the purpose of enabling or facilitation the circumvention of any effective **technological** measures.

3. For the purposes of this Agreement, the expression ‘**technological** measures’ means any **technology**, device or component that, in the normal course of its operation, is designed to prevent or restrict acts, in respect of works or other protected subject matter, which are not authorised by the right holder of any copyright or related right as provided for by domestic law. **Technological** measures shall be deemed ‘effective’ where the use of a work or other protected subject matter is controlled by the right holders through application of an access control or protection process, such as encryption, scrambling or other transformation of the work or other subject matter or a copy control mechanism, which achieves the protection objective.

Article 162

Exceptions and limitations

(...) 2. Each Party shall provide that temporary acts of reproduction referred to in Articles 155 to 158 of this Agreement, which are transient or incidental, which are an integral and essential part of a **technological** process and the sole purpose of which is to enable:

- (a) a transmission in a network between third parties by an intermediary, or
- (b) a lawful use of a work or other protected subject matter to be made, and which have no independent economic significance, shall be exempted from the reproduction right provided for in Articles 155 to 158 of this Agreement.”

56. Korea – Australia RTA (in force since 12 Dec. 2014):

“Chapter 13 - Intellectual Property Rights

ARTICLE 13.5: COPYRIGHT AND RELATED RIGHTS

(...) Protection of Effective **Technological** Measures

9. Each Party shall provide for adequate legal protection and effective legal remedies against:

- (a) the circumvention of any effective **technological** measures that control access to a protected work, performance, phonogram, broadcast or other subject matter, which the person concerned carries out in the knowledge, or with reasonable grounds to know, that such person is pursuing that objective;
- (b) the manufacture, import, distribution, offering to the public, provision, or otherwise trafficking of devices, products, or components, or the offering to the public, or provision of services, that:
 - (i) are promoted, advertised, or marketed for the purpose of circumvention of any effective **technological** measure;
 - (ii) have only a limited commercially significant purpose or use other than to circumvent any effective **technological** measure; or
 - (iii) are primarily designed, produced, or performed for the purposes of enabling or facilitating the circumvention of any effective **technological** measure.

ARTICLE 13.8: PATENTS

1. Each Party shall make patents available for any invention, whether a product or process, in all fields of **technology**, provided that the invention is new, involves an inventive step, and is capable of industrial application. In addition, each Party confirms that patents shall be available for any new uses or methods of using a known product.”

57. Canada – Korea RTA (in force since 01 Jan. 2015):

“Chapter Sixteen: Intellectual Property

Article 16.1: Objectives

The objectives of this Chapter are to:

- (a) facilitate international trade and economic, social and cultural development through the dissemination of ideas, **technology**, and creative works;
- (b) achieve an adequate and effective level of protection and enforcement of intellectual property rights;

- (c) achieve a balance between the rights of intellectual property right-holders and the legitimate interests of intellectual property users with regard to intellectual property; and
- (d) strengthen the Parties' cooperation in the field of intellectual property.

Article 16.11: Copyright and Related Rights

Protection of **Technological** Measures

4. Each Party shall provide adequate legal protection and effective legal remedies against the circumvention of effective **technological** measuresFootnote 11 that are used by authors, performers or producers of phonograms in connection with the exercise of their rights in, and that restrict acts in respect of, their works, performances, and phonograms, which are not authorised by the authors, performers or producers of phonograms concerned or permitted by law.

5. In order to provide the adequate legal protection and effective legal remedies referred to in paragraph 4, each Party shall provide protection against at least:

(a) to the extent provided by its law:

(i) the unauthorised circumvention of an effective **technological** measure carried out knowingly or with reasonable grounds to know; and

(ii) the offering to the public by marketing of a device or product, including computer programs, or a service, as a means of circumventing an effective **technological** measure; and

(b) the manufacture, importation, or distribution of a device or product, including computer programs, or provision of a service that: (...)

Article 16.12: Patents

1. Each Party shall make patents available for any invention, whether a product or process, in all fields of **technology**, provided that the invention is new, involves an inventive step, and is capable of industrial application. In addition, each Party confirms that patents shall be available for any new uses or methods of using a known product, provided that the invention is new, involves an inventive step, and is capable of industrial application.”

58. Australia – Japan RTA (in force since 15 Jan. 2015):

“Chapter 16 - Intellectual Property

Article 16.12

Copyright and Related Rights

1. With respect to copyright and related rights, each Party shall provide:

(a) adequate legal protection; and

(b) effective criminal penalties or civil remedies or any combination thereof, against the circumvention of effective **technological** measures that are used by authors, performers, or producers of phonograms in connection with the exercise of their rights under the laws and regulations of the Party and that restrict acts, in respect of their works, performances or phonograms, which are neither authorised by the authors, performers or producers of phonograms concerned nor permitted in certain special cases by the laws and regulations of the Party.”

59. Mexico – Panama RTA (in force since 01 Jul. 2015):

“CAPÍTULO 15

PROPIEDAD INTELECTUAL

(...) Artículo 15.2: Principios Básicos

1. Las Partes reconocen que la protección y observancia de los derechos de propiedad intelectual deberán contribuir a la generación de conocimiento, la promoción de la **innovación**, transferencia y difusión de **tecnología** y a progreso cultural, en beneficio recíproco de los productores y de los usuarios de conocimientos tecnológicos y culturales, favoreciendo el desarrollo del bienestar social y económico y el balance de derechos y obligaciones.

3. Las Partes, al formular o modificar sus leyes y reglamentos, podrán adoptar las medidas necesarias para proteger la salud pública y la nutrición de la población, o para promover el interés público en sectores de importancia vital para su desarrollo socioeconómico y **tecnológico**, siempre que esas medidas sean compatibles con lo dispuesto en este Capítulo.

4. Las Partes reconocen que la transferencia de **tecnología** contribuye al fortalecimiento de las capacidades nacionales que permitan establecer una base **tecnológica** sólida y viable.

Artículo 15.3: Disposiciones Generales

(...) 6. Ninguna disposición de este Capítulo impedirá a una Parte adoptar las medidas necesarias para prevenir el abuso de los derechos de propiedad intelectual por sus titulares, o el recurso a prácticas que limiten de manera injustificable el comercio, o redunden en detrimento de la transferencia internacional de **tecnología**. Asimismo, ninguna disposición de este Capítulo se interpretará como una disminución de las protecciones que las Partes acuerden o hayan acordado en beneficio de la conservación y uso sostenible de la biodiversidad, ni impedirá que las Partes adopten o mantengan medidas para este fin.

Artículo 15.11: Cooperación, Ciencia y **Tecnología**

1. Las Partes, reconociendo la importancia de los derechos de propiedad intelectual como factor de desarrollo social, económico y cultural, convienen en intensificar su cooperación en el ámbito de los derechos de propiedad intelectual sobre bases de equidad y beneficio recíproco, en los términos y condiciones que sus autoridades competentes acuerden mutuamente.

2. De acuerdo con las posibilidades de las Partes, las áreas de cooperación podrán incluir las siguientes actividades:

(a) intercambio de información sobre los marcos legales y el intercambio de experiencias sobre los procesos legislativos relacionados con los derechos de propiedad intelectual;”

60. Australia – China RTA (in force since 20 Dec. 2015):

“CHAPTER 11

INTELLECTUAL PROPERTY

ARTICLE 11.1: PURPOSE AND PRINCIPLES

The purpose of this Chapter is to increase the benefits from trade and investment through the protection and enforcement of intellectual property rights. The Parties recognise that:

(a) establishing and maintaining transparent intellectual property systems and promoting and maintaining adequate and effective protection and enforcement of intellectual property rights provides certainty to rights holders and users;

(b) protecting and enforcing intellectual property rights should contribute to the promotion of **technological innovation** and to the transfer and dissemination of **technology**;

(c) intellectual property protection promotes economic and social development and can reduce distortion and obstruction to international trade;

(d) intellectual property systems should support open, **innovative** and efficient markets, including through the effective creation, utilisation, protection and enforcement of intellectual property rights, appropriate limitations and exceptions, and an appropriate balance between the legitimate interests of rights holders, users and the public interest;

(e) intellectual property systems should not themselves become barriers to legitimate trade;

(f) appropriate measures, provided they are consistent with the provisions of the TRIPS Agreement¹ and this Chapter, may be needed to prevent the abuse of intellectual property rights by right holders, or the resort to practices which unreasonably restrain trade, are anticompetitive or adversely affect the international transfer of **technology**; and (...).”

61. Korea – Viet Nam RTA (in force since 20 Dec. 2015):

“CHAPTER 12 INTELLECTUAL PROPERTY

The objectives of this Chapter are to:

(a) enhance the role of intellectual property in promoting economic and social development, particularly in relation to **technological innovation**, transfer and dissemination of **technology** and trade; (...)

Article 12.2 : General Principles

(...) 4. Each Party shall recognize the underlying public policy objectives of national systems for the protection of intellectual property, including developmental and **technological** objectives. Nothing in this Chapter shall be construed to prevent a Party from taking any action which it considers necessary for protection of its essential security interests.

Article 12.7 : Patents

1. Each Party shall make patents available for any invention, whether a product or process, in all fields of **technology**, provided that the invention is new, involves an inventive step, and is capable of industrial application.

Article 12.10 : Cooperation

(...) 4. The Parties also agree to cooperate, through their intellectual property offices, on the following issues:

- (a) capacity building for officials or experts on intellectual property rights;
- (b) intellectual property administration, and registration systems, including publicly accessible databases;
- (c) education and public awareness of intellectual property rights;
- (d) intellectual property commercialization and **technology** transfer;
- (e) improvement of quality management procedures; and
- (f) other areas agreed by the Parties.”

62. Korea – China RTA (in force since 20 Dec. 2015):

“CHAPTER 15

INTELLECTUAL PROPERTY RIGHTS

Section A: General Provisions

Article 15.1: Objectives

1. The objectives of this Chapter are:

- (a) to facilitate international trade and economic, social and cultural development through the dissemination of ideas, **technology** and creative works;
- (b) to provide certainty for right holders and users of intellectual property over the protection and enforcement of intellectual property rights; and
- (c) to facilitate the enforcement of intellectual property rights with a view, inter alia, to eliminating trade in goods infringing intellectual property rights and incentivizing research.

2. The Parties recognize that the protection and enforcement of intellectual property rights should strike a balance between the legitimate interest of the right holders and the public at large.

Article 15.8: Protection of **Technological** Measures

1. Each Party shall provide adequate legal protection and effective legal remedies against the circumvention of any effective **technological** measures, which the person concerned carries out in the knowledge, or with reasonable grounds to know, that such person is pursuing that objective.

2. For the purposes of this Chapter, **technological** measure means any **technology**, device or component that, in the normal course of its operation, is designed to prevent or restrict acts, in respect of works or performance or phonogram, which are not authorised by the right holder of any copyright or any right related to copyright as provided for by each Party’s legislation, including access control measures that prevent or restrict access to works made available in the network.

Section D: Patents and Utility Model

Article 15.15: Patents Protection

1. Subject to the provisions of paragraphs 2 and 3, patents shall be available for any inventions, whether products or processes, in all fields of **technology**, provided that they are new, involve an inventive step, and are capable of industrial application. (...)"

63. Japan – Mongolia RTA – Implementation Agreement (in force since 07 Jun. 2016):

“Article 5.6

Science and **Technology** and Intellectual Property

Pursuant to Article 15.2 of the Basic Agreement, in the field referred to in subparagraph (f) of Article 15.1 of the Basic Agreement:

(a) the areas of cooperation may include:

(i) encouraging **innovation**;

(ii) advanced science and **technology**;

(iii) utilization of intellectual property rights for **innovation** and economic growth;

(iv) capacity building in the field of enforcement of intellectual property rights at the border;

(v) capacity building for organizations for collective management of copyrights and related rights;

(vi) development of human resources with advanced knowledge and skills; and

(vii) other areas as may be agreed by the Parties; and (...)"

64. Korea – Colombia RTA (in force since 15 Jul. 2016):

“CHAPTER FIFTEEN

INTELLECTUAL PROPERTY RIGHTS

ARTICLE 15.1: OBJECTIVES

The objectives of this Chapter are:

(a) to increase the benefits from trade and investment;

(b) to promote **innovation** and creativity;

(c) to facilitate production and commercialization of **innovative** and creative products; and

(d) to contribute to the transfer and dissemination of **technology**, in a manner conducive to social and economic welfare, and to the balance between the rights of the right holders and the public interest.

ARTICLE 15.10: **TECHNOLOGY** TRANSFER AND COOPERATION

Technology Transfer

1. The Parties recognize the importance of **technological innovation** as well as transfer of **technology** and dissemination of scientific and **technological** information to the mutual advantage of **technology** producers and users. Accordingly, the Parties will seek to develop and encourage cooperation programs, through collaborations in science, **technology**, and **innovation**. The Parties shall take into account the cooperation issues and activities developed under the Agreement on Scientific and Technical Cooperation between the Parties, signed in 1981, with the purpose of encouraging and strengthening the cooperative activities on research, **innovation**, and **technology** transfer.”

65. Colombia – Costa Rica RTA (in force since 01 Aug. 2016):

“CAPÍTULO 9

PROPIEDAD INTELECTUAL

ARTÍCULO 9.1: PRINCIPIOS BÁSICOS

1. Las Partes reconocen que la protección y observancia de los derechos de propiedad intelectual deberán contribuir a la generación de conocimiento, la promoción de la **innovación**, transferencia y difusión de **tecnología** y al progreso cultural, en beneficio recíproco de los productores y de los usuarios de conocimientos tecnológicos y

culturales, favoreciendo el desarrollo del bienestar social y económico y el balance de derechos y obligaciones.

(...) 3. Considerando las disposiciones del presente Capítulo, las Partes, al formular o modificar sus leyes y reglamentos, podrán adoptar las medidas necesarias para proteger la salud pública y la nutrición de la población, o para promover el interés público en sectores de importancia vital para su desarrollo socioeconómico y **tecnológico**.

4. Las Partes reconocen que la transferencia de **tecnología** contribuye al fortalecimiento de las capacidades nacionales que permitan establecer una base **tecnológica** sólida y viable.

ARTÍCULO 9.8: COOPERACIÓN Y CIENCIA, **TECNOLOGÍA** E **INNOVACIÓN**

1. Las Partes intercambiarán información y material en proyectos de educación y diseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

- (a) mejorar y fortalecer los sistemas administrativos de la propiedad intelectual para promover el registro eficiente de los derechos de propiedad intelectual;
- (b) estimular la creación y desarrollo de la propiedad intelectual dentro del territorio de las Partes, particularmente de los pequeños inventores y creadores, así como de las micro, pequeñas y medianas empresas;
- (c) promover el diálogo y la cooperación con relación a la ciencia, la **tecnología**, el emprendimiento y la **innovación**; y
- (d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo tecnológico, el emprendimiento y la **innovación**, así como la importancia de diseminar la información tecnológica y de crear y fortalecer sus capacidades tecnológicas; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la **innovación**, el emprendimiento, la transferencia y la difusión de **tecnología** entre las Partes, dirigidos, entre otros, a empresas, instituciones de educación superior y, centros de investigación y desarrollo tecnológico.

4. Las actividades de cooperación en ciencia, **tecnología** e **innovación** podrán adoptar, entre otras, las siguientes formas:

- (a) participación en proyectos conjuntos de educación, investigación, desarrollo **tecnológico** e **innovación**; (...)
 - (e) acciones concertadas para la difusión de los resultados y el intercambio de experiencias en torno a los proyectos conjuntos de ciencia **tecnología** e **innovación** y para la coordinación de los mismos;
- (...)

6. Cada Parte designa como entidades de contacto, responsables del cumplimiento de los objetivos del presente Artículo, y de facilitar el desarrollo de los proyectos de colaboración y cooperación en investigación, **innovación** y desarrollo tecnológico, a las siguientes entidades:

- (a) en el caso de Colombia, al Ministerio de Comercio, Industria y Turismo en coordinación con el Departamento Administrativo de Ciencia, **Tecnología** e **Innovación** (COLCIENCIAS); y (...)

66. Peru – Honduras RTA (in force since 01 Jan. 2017):

“(...) Capítulo 9

Propiedad Intelectual

Artículo 9.1: Principios Básicos

1. Las Partes reconocen que la protección y observancia de los derechos de propiedad intelectual deberán contribuir a la generación de conocimiento, la promoción de la **innovación**, transferencia y difusión de **tecnología** y al progreso cultural, en beneficio recíproco de los productores y de los usuarios de conocimientos tecnológicos y culturales, favoreciendo el desarrollo del bienestar social y económico y el balance de derechos y obligaciones.

(...) Artículo 9.5: Medidas Relacionadas con la Protección a la Biodiversidad y los Conocimientos Tradicionales

(...) 2. Las Partes reconocen la importancia y valor de los conocimientos, [innovaciones](#) y prácticas de las comunidades indígenas y locales, así como la contribución pasada, presente y futura de las mismas a la conservación y uso sostenible de los recursos biológicos y genéticos y sus productos derivados, y en general, la contribución de los conocimientos tradicionales de tales comunidades a la cultura y al desarrollo económico y social de las naciones.

Cada Parte, de conformidad con su legislación nacional, reitera su compromiso de respetar, preservar y mantener los conocimientos tradicionales, [innovaciones](#) y prácticas de las colectividades indígenas y locales de los territorios de las Partes.

(...) 9. Las Partes acuerdan, a solicitud de cualquiera de ellas, colaborar en el suministro de información pública que tengan a su disposición para la investigación y seguimiento del acceso ilegal a recursos genéticos y/o conocimientos, [innovaciones](#) y prácticas tradicionales en sus territorios.

(...) Artículo 9.8: Cooperación, Ciencia y **Tecnología**

1. Las Partes intercambiarán información y material en proyectos de educación y disseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

(...) (c) promover el diálogo y la cooperación con relación a la ciencia, la [tecnología](#), el emprendimiento y la [innovación](#); y

(d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo tecnológico, el emprendimiento y la [innovación](#), así como la importancia de disseminar la información tecnológica y de crear y fortalecer sus capacidades tecnológicas; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la [innovación](#), el emprendimiento, la transferencia y la difusión de [tecnología](#) entre las Partes, dirigidos, entre otros, a empresas, universidades, centros de investigación y centros tecnológicos.

4. Las actividades de cooperación en ciencia y [tecnología](#) podrán adoptar, entre otras, las siguientes formas:

(a) participación en proyectos conjuntos de educación, investigación, desarrollo [tecnológico](#) e [innovación](#); (...)

6. Cada Parte designa como entidades de contacto responsables del cumplimiento de los objetivos de este Artículo, y de facilitar el desarrollo de los proyectos de colaboración y cooperación en investigación, [innovación](#) y desarrollo tecnológico, a las siguientes:

(a) en el caso de Honduras: la Secretaría de Estado en el Despacho de Desarrollo Económico; y

(b) en el caso del Perú: el Consejo Nacional de Ciencia, [Tecnología](#) e [Innovación](#) Tecnológica (CONCYTEC), o sus sucesores.”

67. Canada – Ukraine RTA (in force since 01 Aug. 2017):

“Chapter 11: Intellectual property

Article 11.1: Objectives

The objectives of this Chapter are to:

(a) maintain a balance between the rights of intellectual property right holders and the legitimate interests of intellectual property users with regard to intellectual property;

(b) facilitate international trade and economic, social and cultural development through the dissemination of ideas, [technology](#) and creative works; and

(c) facilitate the enforcement of intellectual property rights with a view, among other things, to eliminating trade in goods infringing intellectual property rights.”

68. EU – Canada RTA (in force since 21 Sep. 2017):

“CHAPTER TWENTY

Intellectual property

(...)

Article 20.9

Protection of **technological** measures

1. For the purposes of this Article, **technological** measures means any **technology**, device, or component that, in the normal course of its operation, is designed to prevent or restrict acts, in respect of works, performances, or phonograms, that are not authorised by authors, performers or producers of phonograms, as provided for by the law of a Party. Without prejudice to the scope of copyright or related rights contained in the law of a Party, **technological** measures shall be deemed effective where the use of protected works, performances, or phonograms is controlled by authors, performers or producers of phonograms through the application of a relevant access control or protection process, such as encryption or scrambling, or a copy control mechanism, that achieves the objective of protection.

2. Each Party shall provide adequate legal protection and effective legal remedies against the circumvention of effective **technological** measures that are used by authors, performers or producers of phonograms in connection with the exercise of their rights in, and that restrict acts in respect of, their works, performances, and phonograms, which are not authorised by the authors, the performers or the producers of phonograms concerned or permitted by law.

(...) 3. In order to provide the adequate legal protection and effective legal remedies referred to in paragraph 2, each Party shall provide protection against at least:

(a) to the extent provided by its law:

(i) the unauthorised circumvention of an effective **technological** measure carried out knowingly or with reasonable grounds to know; and

(ii) the offering to the public by marketing of a device or product, including computer programs, or a service, as a means of circumventing an effective **technological** measure; and

(b) the manufacture, importation, or distribution of a device or product, including computer programs, or provision of a service that:

(i) is primarily designed or produced for the purpose of circumventing an effective **technological** measure; or

(ii) has only a limited commercially significant purpose other than circumventing an effective **technological** measure.

4. Under paragraph 3, the term 'to the extent provided by its law' means that each Party has flexibility in implementing subparagraphs (a)(i) and (ii).

5. In implementing paragraphs 2 and 3, a Party shall not be obliged to require that the design of, or the design and selection of parts and components for, a consumer electronics, telecommunications, or computing product provide for a response to any particular **technological** measure, so long as the product does not otherwise contravene that Party's measures implementing these paragraphs. The intention of this provision is that this Agreement does not require a Party to mandate interoperability in its law: there is no obligation for the information communication **technology** industry to design devices, products, components, or services to correspond to certain **technological** measures.

6. In providing adequate legal protection and effective legal remedies pursuant to paragraph 2, a Party may adopt or maintain appropriate limitations or exceptions to measures implementing the provisions of paragraphs 2 and 3. The obligations set forth in paragraphs 2 and 3 are without prejudice to the rights, limitations, exceptions, or defences to copyright or related rights infringement under the law of a Party."

69. Türkiye – Singapore RTA (in force since 01 Oct. 2017):

“CHAPTER 15

INTELLECTUAL PROPERTY

(...) SECTION 15-D

COOPERATION

Article 15.24

Cooperation

1. The Parties agree to cooperate with a view to supporting the implementation of the commitments and obligations undertaken in this Chapter. Areas of cooperation include, but are not limited to, the following activities:

(...)

(e) capacity-building and technical cooperation in relation, but not limited, to: management, licensing, valuation and exploitation of intellectual property rights; **technology** and market intelligence; facilitation of industry collaborations, including on intellectual property rights that may be applied towards environmental conservation or enhancement which may include establishing a platform or database; and public private partnerships to support culture and **innovation**;

70. China – Georgia RTA (in force since 01 Jan. 2018):

“CHAPTER 11

INTELLECTUAL PROPERTY

ARTICLE 11.1: PURPOSE AND PRINCIPLES

The purpose of this Chapter is to increase the benefits from trade and investment through the protection and enforcement of intellectual property rights. The Parties recognise that:

(...) (b) protecting and enforcing intellectual property rights should contribute to the promotion of **technological innovation** and to the transfer and dissemination of **technology**;

(c) intellectual property protection promotes economic and social development, and can reduce distortion and obstruction to international trade;

(d) intellectual property systems should support open, **innovative** and efficient markets, including through the effective creation, utilisation, protection, and enforcement of intellectual property rights, appropriate limitations and exceptions, and an appropriate balance between the legitimate interests of rights holders, users and the public interest; (...)

71. CPTPP²⁴⁴ (in force since 30 Dec. 2018):

“CHAPTER 18

INTELLECTUAL PROPERTY

Section A: General Provisions

(...) Article 18.2: Objectives

The protection and enforcement of intellectual property rights should contribute to the promotion of **technological innovation** and to the transfer and dissemination of **technology**, to the mutual advantage of producers and users of **technological** knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

(...) Article 18.3: Principles

1. A Party may, in formulating or amending its laws and regulations, adopt measures necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and **technological** development, provided that such measures are consistent with the provisions of this Chapter.

2. Appropriate measures, provided that they are consistent with the provisions of this Chapter, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of **technology**.

(...) Article 18.4: Understandings in Respect of this Chapter

Having regard to the underlying public policy objectives of national systems, the Parties recognise the need to:

(a) promote **innovation** and creativity;

²⁴⁴ According to the WTO RTAs Database, the parties to the CTPP are: Australia; Brunei Darussalam; Canada; Chile; Japan; Malaysia; Mexico; New Zealand; Peru; Singapore; Viet Nam.

- (b) facilitate the diffusion of information, knowledge, **technology**, culture and the arts; and
- (c) foster competition and open and efficient markets, through their respective intellectual property systems, while respecting the principles of transparency and due process, and taking into account the interests of relevant stakeholders, including right holders, service providers, users and the public.

Article 18.13: Cooperation Activities and Initiatives

The Parties shall endeavour to cooperate on the subject matter covered by this Chapter, such as through appropriate coordination, training and exchange of information between the respective intellectual property offices of the Parties, or other institutions, as determined by each Party. Cooperation may cover areas such as:

(...) (d) intellectual property issues relevant to:

- (i) small and medium-sized enterprises;
- (ii) science, **technology** and **innovation** activities; and
- (iii) the generation, transfer and dissemination of **technology**;
- (e) policies involving the use of intellectual property for research, **innovation** and economic growth; (...).”

72. EU – Japan RTA (in force since 01 Feb. 2019):

“CHAPTER 14
INTELLECTUAL PROPERTY
SECTION A

General provisions

(...) ARTICLE 14.2

Agreed principles

Having regard to the underlying public policy objectives of domestic systems, the Parties recognise the need to:

- (a) promote **innovation** and creativity;
- (b) facilitate the diffusion of information, knowledge, **technology**, culture and the arts; and
- (c) foster competition and open and efficient markets, through their respective intellectual property systems, while respecting the principles of, inter alia, transparency and non-discrimination, and taking into account the interests of relevant stakeholders including right holders and users.

SECTION D

Cooperation and institutional arrangements

ARTICLE 14.52

Cooperation

(...) 2. For the purpose of paragraph 1, cooperation may include exchange of information, sharing of experiences and skills and any other form of cooperation or activities as may be agreed between the Parties. Such cooperation may cover areas such as:

(...) (d) intellectual property issues relevant to:

- (i) small and medium-sized enterprises;
- (ii) science, **technology** and **innovation** activities; and
- (iii) the generation, transfer and dissemination of **technology**;
- (e) policies involving the use of intellectual property for research, **innovation** and economic growth;”

73. Hong Kong – Georgia RTA (in force since 13 Feb. 2019):

“CHAPTER 11
INTELLECTUAL PROPERTY

(...) Article 2

Purpose and Principles

(...) (b) protecting and enforcing intellectual property rights should contribute to the promotion of **technological innovation** and to the transfer and dissemination of **technology**;

(c) intellectual property protection promotes economic and social development and can reduce distortion and obstruction to international trade;

(d) intellectual property systems should support open, **innovative** and efficient markets, including through the effective creation, utilisation, protection and enforcement of intellectual property rights, appropriate limitations and exceptions, and an appropriate balance between the legitimate interests of rights holders, users and the public interest;”

74. Australia – Hong Kong RTA (in force since 17 Jan. 2020):

“CHAPTER 14

INTELLECTUAL PROPERTY

(...) Article 14.2: Purpose and Principles

1. The purpose of this Chapter is to increase the benefits from trade and investment through the protection and enforcement of intellectual property rights. The Parties recognise:

(...) (b) that protecting and enforcing intellectual property rights should contribute to the promotion of creativity, **technological innovation** and to the transfer and dissemination of **technology**, to the mutual advantage of producers and users of **technological** knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations;

(c) the importance of facilitating the diffusion of information, knowledge, content, culture and the arts and the need to promote international trade, **innovation** and creativity, and economic and social development;

(d) that intellectual property systems should support open, **innovative** and efficient markets, including through the effective creation, utilisation, protection and enforcement of intellectual property rights, appropriate limitations and exceptions, and an appropriate balance between the legitimate interests of rights holders, users and the public interest; and

(e) that intellectual property systems should not become barriers to legitimate trade.

2. A Party may, in formulating or amending its laws and regulations, adopt measures necessary to protect public health and nutrition and to promote the public interest in sectors of vital importance to its socio-economic and **technological** development provided that such measures are consistent with the provisions of this Chapter and the TRIPS Agreement.

3. Appropriate measures, provided that they are consistent with the provisions of this Chapter, may be needed to prevent the abuse of intellectual property rights by rights holders, or the resort to practices which are anti-competitive or unreasonably restrain trade or adversely affect the international transfer of **technology**.

(...)”

75. Peru – Australia RTA (in force since 11 Feb. 2020):

“CHAPTER 17

INTELLECTUAL PROPERTY

Article 17.2: Objectives

The protection and enforcement of intellectual property rights should contribute to the promotion of **technological innovation** and to the transfer and dissemination of **technology**, to the mutual advantage of producers and users of **technological** knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations. (...)

Article 17.4: Understandings in Respect of this Chapter

Having regard to the underlying public policy objectives of national systems, the Parties recognise the need to:

- (a) promote [innovation](#) and creativity;
- (b) facilitate the diffusion of information, knowledge, [technology](#), culture and the arts; and
- (c) foster competition and open and efficient markets, through their respective intellectual property systems, while respecting the principles of transparency and due process, and taking into account the interests of relevant stakeholders, including right holders, users and the public.”

76. United States-Mexico-Canada Agreement (USMCA/CUSMA/T-MEC) (in force since 01 Jul. 2020):

“CHAPTER 20 INTELLECTUAL PROPERTY RIGHTS

Article 20.2: Objectives

The protection and enforcement of intellectual property rights should contribute to the promotion of [technological innovation](#) and to the transfer and dissemination of [technology](#), to the mutual advantage of producers and users of [technological](#) knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

(...)

Article 20.14: Committee on Intellectual Property Rights

1. The Parties hereby establish a Committee on Intellectual Property Rights (IPR Committee), composed of government representatives of each Party.

2. The IPR Committee shall:

(a) exchange information, pertaining to intellectual property rights matters, including how intellectual property protection contributes to [innovation](#), creativity, economic growth, and employment, such as: (...)

(iii) intellectual property issues particularly relevant to small and medium-sized enterprises; science, [technology](#), and [innovation](#) activities; and to the generation, transfer, and dissemination of [technology](#).”

77. EU – Viet Nam RTA (in force since 13 Jul. 2020):

“CHAPTER 12

Intellectual property

Section A

General provisions and principles

Article 12.1

Objectives

(...) 2. The protection and enforcement of intellectual property rights should contribute to the promotion of [technological innovation](#) and to the transfer and dissemination of [technology](#), to the mutual advantage of producers and users of [technological](#) knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations (...)

78. United Kingdom – CARIFORUM States²⁴⁵ RTA (in force since 01 Jan. 2021):

“CHAPTER 2

[Innovation](#) and intellectual property

(...) Article 132

Objectives

The objectives of this Chapter are to:

(a) promote the process of [innovation](#), including [ecoinnovation](#), of enterprises located in the Parties;

²⁴⁵ According to the WTO RTAs Database, the CARIFORUM States are comprised of: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Haiti; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

- (...) (c) facilitate the production and commercialisation of **innovative** and creative products between the Parties;
- (d) achieve an adequate and effective level of protection and enforcement of intellectual property rights;
- (e) contribute to the promotion of **technological innovation** and to the transfer and dissemination of **technology** and know-how; (...)"

Section 1

Innovation

(...) Article 135

Cooperation in the area of competitiveness and **innovation**

1. The Parties recognise that the promotion of creativity and **innovation** is essential for the development of entrepreneurship and competitiveness and the achievement of the overall objectives of this Agreement.
2. Subject to the provisions of Articles 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:
 - (a) promotion of **innovation**, diversification, modernisation, development and product and process quality in businesses;
 - (...) (e) promotion of partnerships for research and development activities in the CARIFORUM States in order to improve their **innovation** systems; and
 - (f) intensification of activities to promote linkages, **innovation** and **technology** transfer between CARIFORUM and the United Kingdom partners.

Article 136

Cooperation on science and **technology**

1. The Parties will foster the participation of their research and **technological** development bodies in the cooperation activities in compliance with their internal rules. Cooperative activities may take the following forms:
 - (...) (j) participation in the knowledge and **innovation** communities of the United Kingdom.

Article 137

Cooperation on information society and information and communication **technologies**

1. The Parties recognise that information and communications **technologies** ('ICT') are key sectors in a modern society and are of vital importance to foster creativity, **innovation** and competitiveness, as well as the smooth transition to the information society. (...)"

Section 2

Intellectual property

Subsection 1

(...) Article 142

Transfer of **technology**

1. The United Kingdom and the Signatory CARIFORUM States agree to exchange views and information on their practices and policies affecting transfer of **technology**, both within their respective regions and with third countries. This shall in particular include measures to facilitate information flows, business partnerships, licensing and subcontracting. Particular attention shall be paid to the conditions necessary to create an adequate enabling environment for **technology** transfer in the host countries, including issues such as development of human capital and legal framework.
2. The United Kingdom and the Signatory CARIFORUM States shall take measures, as appropriate, to prevent or control licensing practices or conditions pertaining to intellectual property rights which may adversely affect the international transfer of **technology** and that constitute an abuse of intellectual property rights by right holders or an abuse of obvious information asymmetries in the negotiation of licences. (...)"

79. United Kingdom – Japan RTA (in force since 01 Jan. 2021):

“CHAPTER 14 INTELLECTUAL PROPERTY

(...) ARTICLE 14.2

Agreed principles

Having regard to the underlying public policy objectives of domestic systems, the Parties recognize the need to:

- (a) promote **innovation** and creativity;
- (b) facilitate the diffusion of information, knowledge, **technology**, culture and the arts; and
- (c) foster competition and open and efficient markets, through their respective intellectual property systems, while respecting the principles of, inter alia, transparency and non-discrimination, and taking into account the interests of relevant stakeholders including right holders and users.

ARTICLE 14.60

Cooperation

1. The Parties, recognising the growing importance of the protection of intellectual property in further promoting trade and investment between them, shall cooperate on intellectual property, including by exchange information on relations of a Party with third countries on matters concerning intellectual property, in accordance with their respective laws and regulations and subject to their available resources.

2. For the purposes of paragraph 1, cooperation may include exchange of information, sharing of experiences and skills and any other form of cooperation or activities as may be agreed between the Parties. Such cooperation may cover areas such as:

- (a) developments in domestic and international intellectual property policy;
- (b) intellectual property administration and registration systems;
- (c) education and awareness relating to intellectual property;
- (d) intellectual property issues relevant to:
 - (i) small and medium-sized enterprises;
 - (ii) science, **technology** and **innovation** activities; and
 - (iii) the generation, transfer and dissemination of **technology**;
- (e) policies involving the use of intellectual property for research, **innovation** and economic growth;
- (f) the implementation of multilateral intellectual property agreements, such as those concluded or administered under the auspices of the WIPO;"

80. India – United Arab Emirates RTA (entered into force in 22 Sep. 2022):

“CHAPTER 11 INTELLECTUAL PROPERTY

ARTICLE 11.2 Objectives

The protection and enforcement of intellectual property rights should contribute to the promotion of **technological innovation** and to the transfer and dissemination of **technology**, to the mutual advantage of producers and users of **technological** knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

ARTICLE 11.4 Understandings in Respect of this Chapter

Having regard to the underlying public policy objectives of national systems, the Parties recognise the need to:

- (a) promote **innovation** and creativity;
- (b) facilitate the diffusion of information, knowledge, **technology**, culture and the arts; and
- (c) foster competition through their respective intellectual property systems, while respecting the principles of transparency and due process, and taking into account the interests of right holders, users and the public.

ARTICLE 11.12

Cooperation Activities and Initiatives

The Parties shall endeavour to cooperate on the subject matter covered by this Chapter, such as through appropriate coordination, training and exchange of information between the respective intellectual property offices of the Parties, or other

institutions, as determined mutually by the Parties. Cooperation may cover areas such as:

- (a) developments in domestic and international intellectual property policy;
- (b) intellectual property administration and registration systems;
- (c) education and awareness relating to intellectual property;
- (d) intellectual property issues relevant to:
 - (i) small and medium-sized enterprises;
 - (ii) science, **technology** and **innovation** activities; and
 - (iii) the generation, transfer and dissemination of **technology**;
- (e) policies involving the use of intellectual property for research, **innovation** and economic growth;
- (f) implementation of multilateral intellectual property agreements, such as those concluded or administered under the auspices of WIPO;
- (g) technical assistance for developing countries;
- (h) genetic resources, traditional knowledge, and traditional cultural expressions; and
- (i) geographical indications.”

5.2.2.3 In Cooperation Provisions

The selected excerpts of the 133 RTAs that mention the term “technology” or its variations in Cooperation provisions are transcribed below for ease of reference, in chronological order by date of entry into force.

1. EU Treaty (in force since 01 Jan. 1958):

“Article 45

1. The European Defence Agency referred to in Article 42(3), subject to the authority of the Council, shall have as its task to:

- (...) (d) support defence **technology** research, and coordinate and plan joint research activities and the study of technical solutions meeting future operational needs;
- (e) contribute to identifying and, if necessary, implementing any useful measure for strengthening the industrial and **technological** base of the defence sector and for improving the effectiveness of military expenditure.

CONSOLIDATED VERSION OF THE TREATY ON THE FUNCTIONING OF THE EUROPEAN UNION

TITLE XIX

RESEARCH AND **TECHNOLOGICAL** DEVELOPMENT AND SPACE

Article 179

(ex Article 163 TEC)

1. The Union shall have the objective of strengthening its scientific and **technological** bases by achieving a European research area in which researchers, scientific knowledge and **technology** circulate freely, and encouraging it to become more competitive, including in its industry, while promoting all the research activities deemed necessary by virtue of other Chapters of the Treaties.

2. For this purpose the Union shall, throughout the Union, encourage undertakings, including small and medium-sized undertakings, research centres and universities in their research and **technological** development activities of high quality; it shall support their efforts to cooperate with one another, aiming, notably, at permitting researchers to cooperate freely across borders and at enabling undertakings to exploit the internal market potential to the full, in particular through the opening-up of national public contracts, the definition of common standards and the removal of legal and fiscal obstacles to that cooperation.

3. All Union activities under the Treaties in the area of research and **technological** development, including demonstration projects, shall be decided on and implemented in accordance with the provisions of this Title.

Article 180

(ex Article 164 TEC)

In pursuing these objectives, the Union shall carry out the following activities, complementing the activities carried out in the Member States:

- (a) implementation of research, **technological** development and demonstration programmes, by promoting cooperation with and between undertakings, research centres and universities;
- (b) promotion of cooperation in the field of Union research, **technological** development and demonstration with third countries and international organisations;
- (c) dissemination and optimisation of the results of activities in Union research, **technological** development and demonstration;
- (d) stimulation of the training and mobility of researchers in the Union.

Article 181

(ex Article 165 TEC)

1. The Union and the Member States shall coordinate their research and **technological** development activities so as to ensure that national policies and Union policy are mutually consistent.

2. In close cooperation with the Member State, the Commission may take any useful initiative to promote the coordination referred to in paragraph 1, in particular initiatives aiming at the establishment of guidelines and indicators, the organisation of exchange of best practice, and the preparation of the necessary elements for periodic monitoring and evaluation. The European Parliament shall be kept fully informed.

Article 182

(ex Article 166 TEC)

1. A multiannual framework programme, setting out all the activities of the Union, shall be adopted by the European Parliament and the Council, acting in accordance with the ordinary legislative procedure after consulting the Economic and Social Committee.

The framework programme shall:

— establish the scientific and **technological** objectives to be achieved by the activities provided for in Article 180 and fix the relevant priorities, (...)

Article 189

1. To promote scientific and technical progress, industrial competitiveness and the implementation of its policies, the Union shall draw up a European space policy. To this end, it may promote joint initiatives, support research and **technological** development and coordinate the efforts needed for the exploration and exploitation of space.

Article 190

(ex Article 173 TEC)

At the beginning of each year the Commission shall send a report to the European Parliament and to the Council. The report shall include information on research and **technological** development activities and the dissemination of results during the previous year, and the work programme for the current year. »

2. EU Overseas Countries and Territories (OCT) (in force since 01 Jan. 1971):

“Article 19

Maritime Affairs

In the context of the association, cooperation in the field of maritime affairs may concern:

- (a) the strengthening of the dialogue on issues of common interest in that field;

- (b) the promotion of marine knowledge and biotechnology, ocean energy, maritime surveillance, coastal zone management and an ecosystem based management;
- (c) the promotion of integrated approaches at international level.

Chapter 2 – Accessibility

Article 26 – General objectives

1. In the context of the association, cooperation in the field of accessibility shall aim to:

- (a) ensure greater access of OCTs to global transport networks; and
- (b) ensure greater access of OCTs to information and communication technologies and services.

Article 30

Information and communication technologies services

In the context of the association, cooperation in the field of information and communication technology (ICT) services shall aim to spur, in the OCTs, innovation, economic growth and improvements in daily life for both citizens and businesses, including the promotion of accessibility for persons with disabilities. Cooperation shall, in particular, be directed at enhancing OCTs' regulatory capacity and may support the expansion of ICT networks and services through the following measures:

- (a) creation of a predictable regulatory environment that keeps pace with technological developments, stimulates growth and innovation and fosters competition and consumer protection;

Chapter 3

Research and innovation

Article 31

Cooperation in research and innovation

In the context of the association, cooperation in the field of research and innovation may cover science, technology, including information and communication technologies, with the aim of contributing to the OCTs' sustainable development and to promoting the OCTs' role as regional hubs and centres of excellence as well as their industrial competitiveness. In particular, cooperation may concern:

- (a) dialogue, coordination and creation of synergies between OCTs and Union policies and initiatives with regard to science, technology and innovation;
- (b) policy and institutional building within OCTs and concerted actions at local, national or regional level, with a view to developing science, technology and innovation activities and their application; (...)

Article 38

Performing arts

In the context of the association, cooperation in the field of performing arts may concern:

- (...) (c) the encouragement of the development of international theatre technology standards and the use of theatre stage signs, including through appropriate standardisation bodies.

Article 58

Sustainable development in trade

1. In the context of the association, the cooperation in the of field sustainable development may be pursued by:

- (...) (b) facilitating the removal of obstacles to trade or investment regarding goods and services of particular relevance for climate change mitigation, such as sustainable renewable energy and energy efficient products and services, including through the adoption of policy frameworks conducive to the deployment of best available technologies and through the promotion of standards that respond to environmental and economic needs and minimise technical obstacles to trade;

Article 64

Sanitary and phyto-sanitary measures

In the context of the association, cooperation in the field of sanitary and phyto-sanitary measures aims at:
(...) (h) promoting **technology** transfer in the area of sanitary and phyto-sanitary measures.”

3. South Pacific Regional Trade and Economic Cooperation Agreement (SPARTECA) RTA (in force since 01 Jan. 1981):

“Article VIII
Economic, commercial and technical cooperation
(...) Export development and trade promotion
(...) 5. The measures and programs within the fields of export development and trade promotion referred to in paragraph 3 of this Article may include those which contribute to:
(a) the establishment or the improvement of the structure of organisations and firms in Forum Island countries which contribute to the development of those countries, with particular emphasis on staffing requirements, financial management and working methods;
(b) basic training, management training, and vocational training of technicians in fields related to the development and promotion of domestic and international trade;
(c) product research, processing, quality guarantee and control, packaging and presentation;
(d) the development of supportive infrastructure, including transport and storage facilities, in order to facilitate the flow of exports from Forum Island countries;
(e) the development of effective marketing and promotion techniques, based on research, marketing studies and advertising;
(f) cooperation between relevant organisations and firms in the establishment of schemes to promote the transfer and application of **technology**, the development of research, and the training of personnel;
(g) the collection, analysis and dissemination of trade information and access, where appropriate, to existing or future information systems of bodies in Australia or New Zealand; and
(h) participation by the Forum Island countries in trade fairs and exhibitions.”

4. Andean Community (CAN)²⁴⁶ RTA (in force since 25 May 1988):

“Chapter XIV: Economic and Social Cooperation
(...) Article 142. Member Countries shall promote a joint scientific and **technological** development process to attain the following objectives:
The creation of the ability to respond subregionally to the challenges of the scientific-**technological** revolution in course;
The contribution of science and **technology** to the conception and execution of Andean development strategies and programs; and
Taking advantage of the mechanisms of economic integration in order to induce **technological innovation** and productive modernization.

Article 143. With respect to the previous Article, the Member Countries shall adopt in the fields where there is a common interest:
a. Programs of cooperation and joint efforts in science and **technology** in which the subregional level is more effective to train human resources and to obtain the results of the investigation;
b. **Technological** development programs that contribute to the attainment of solutions to the common problems of the productive sectors; and
c. Programs for taking advantage of the enlarged market and of joint physical, human, and financial abilities, in order to induce **technological** development in sectors of common interest.”

²⁴⁶ According to the WTO RTAs Database, the CAN in this case was comprised by: Bolivia, Plurinational State of; Colombia; Ecuador; Peru; Venezuela, Bolivarian Republic of.

5. European Economic Area RTA (in force since 01 Jan. 1994):

“PART VI

COOPERATION OUTSIDE THE FOUR FREEDOMS

Article 78

The Contracting Parties shall strengthen and broaden cooperation in the framework of the Community's activities in the fields of:

- research and **technological** development,
- information services,
- the environment,
- education, training and youth,
- social policy,
- consumer protection,
- small and medium-sized enterprises,
- tourism,
- the audiovisual sector, and
- civil protection,

in so far as these matters are not regulated under the provisions of other Parts of this Agreement.”

6. Common Market for Eastern and Southern Africa (COMESA) RTA (in force since 08 Dec. 1994):

“CHAPTER TWELVE

CO-OPERATION IN INDUSTRIAL DEVELOPMENT

ARTICLE 103

Industrial Research and Development and the Acquisition of Modern **Technology**

1. The Member States shall share and make the best use of existing and future industrial and scientific research institutions, facilities and technical know-how. The institutions referred to herein include the Leather and Leather Products Institute and the Metallurgical **Technology** Centre.

2. The Member States shall endeavour to adopt a common approach to and determine the terms and conditions governing the transfer or adaptation and development of **technology**.

The Member States shall endeavour to co-ordinate their efforts and consult each other in matters relating to industrial property.

ARTICLE 104

Exchange of Industrial and **Technological** Information

1. The Member States shall exchange information on:

(a) the production of and requirements for capital, intermediate and consumer goods;

(...) 2. The Member States undertake to communicate to each other and exchange any information acquired as a result of industrial research, engineering and **technological** adaptation or **innovation** and managerial and marketing experience.”

7. Economic Community of West African States (ECOWAS) (in force since 23 Aug. 1995):

“CHAPTER V

CO-OPERATION IN INDUSTRY, SCIENCE AND **TECHNOLOGY** AND ENERGY

(...) ARTICLE 26 INDUSTRY

(...) In order to create a solid basis for industrialisation and promote collective self-reliance, Member States shall:

a) ensure, on the one hand, the development of industries essential for collective self-reliance and, on the other, the modernisation of priority sectors of the economy especially:

(...) xi) bio-**technology** industries; tourist and cultural industries.

(...) i) promote technical co-operation and the exchange of experience in the field of industrial **technology** and implement technical training programmes among Member States;

ARTICLE 27 SCIENCE AND **TECHNOLOGY**

1. Member States shall:

- a) strengthen their national scientific and **technological** capabilities in order to bring about the socio-economic transformation required to improve the quality of life of their population;
- b) ensure the proper application of science and **technology** to the development of agriculture, transport and communications, industry, health and hygiene, energy, education and manpower and the conservation of the environment;
- c) reduce their dependence on foreign **technology** and promote their individual and collective **technological** self-reliance;
- d) co-operate in the development, acquisition and dissemination of appropriate **technologies**; and
- e) strengthen existing scientific research institutions and take all necessary measures to prepare and implement joint scientific research and **technological** development programmes.

2. In their co-operation in this field, Member States shall:

- a) harmonise, at the Community level, their national policies on scientific and **technological** research with a view to facilitating their integration into the national economic and social development plans;
- b) co-ordinate their programmes in applied research, research for development, scientific and **technological** services;
- c) harmonise their national **technological** development plans by placing special emphasis on indigenous and adapted **technologies** as well as their regulations on industrial property and transfer of **technology**;
- d) co-ordinate their positions on all scientific and technical questions forming the subject of international negotiations;
- e) carry out a permanent exchange of information and documentation and establish Community data networks and data banks;
- f) develop joint programmes for training scientific and **technological** cadres, including the training and further training of skilled manpower;
- g) promote exchanges of researchers and specialists among Member States in order to make full use of the technical skills available within the Community; and
- h) harmonise the educational systems in order to adapt better educational, scientific and technical training to the specific development needs of the West African environment.”

8. Canada – Israel RTA (in force since 01 Jan. 1997):

“CHAPTER THIRTEEN

TRADE AND GENDER

(...) Article 13.3: Cooperation Activities

(...) 4. Areas of cooperation may include:

(...) (f) promoting female entrepreneurship and women’s participation in international trade, including by improving women’s access to, and participation and leadership in, science, **technology** and **innovation**; (...)”

9. EU – Palestine RTA (in force since 01 Jul. 1997):

“TITLE II

ECONOMIC COOPERATION AND SOCIAL DEVELOPMENT

(...) Article 38

Industrial cooperation

The main aim will be to:

(...) — promote research and development, **innovation** and **technology** transfer as far as they benefit industry, (...)

Article 39

Investment promotion and investment

(...) Cooperation may also extend to the conception and implementation of projects demonstrating the effective acquisition and use of basic **technologies**, the use of standards, the development of human resources (e.g. in **technologies** and management) and the creation of jobs.

Article 47

Information infrastructure and telecommunications

Cooperation shall aim at stimulating economic and social development as well as developing an information society .

The priority areas of cooperation will be:

(...) — to allow for information exchange on standardization, conformance testing, and certification in information and communications **technologies**.

Article 48

Energy

The objective of cooperation on energy will be to help the West Bank and Gaza Strip acquire the **technologies** and infrastructures essential to its development , particularly with a view to facilitating links between its economy and that of the Community. (...)

Article 49

Scientific and **technological** cooperation

The Parties will endeavour to promote cooperation on scientific and **technological** development.

The aim of cooperation shall be to:

(a) encourage the establishment of permanent links between the Parties' scientific communities, notably by means of:

— providing Palestinian institutions with access to Community research and **technological** development programmes in accordance with Community rules governing non-Community countries' involvement in such programmes,

— Palestinian participation in networks of decentralized cooperation,

— promoting synergy in training and research;

(b) improve Palestinian research capabilities;

(c) stimulate **technological innovation** and the transfer of new **technology** and know-how;

(d) encourage all activities aimed at establishing synergy at regional level.”

10. EU – Tunisia RTA (in force since 01 Mar. 1998):

“TITLE V

ECONOMIC COOPERATION

Article 45

Regional cooperation

In order to make the most of this Agreement, the Parties shall foster all activities which have a regional impact or involve third countries, notably:

(a) intra-regional trade within the Maghreb;

(b) environmental matters;

(c) the development of economic infrastructure; (d) research in science and **technology**; (...)

(...) Article 47

Scientific, technical and **technological** cooperation

The aim of cooperation shall be to:

(a) encourage the establishment of permanent links between the Parties' scientific communities, notably by means of:

— providing Tunisia with access to Community research and **technological** development programmes in accordance with Community rules governing non-Community countries' involvement in such programmes,

- Tunisian participation in networks of decentralised cooperation,
- promoting synergy in training and research;
- (b) improve Tunisia’s research capabilities;
- (c) stimulate **technological innovation** and the transfer of new **technology** and know-how;
- (d) encourage all activities aimed at establishing synergy at regional level.

Article 49

Industrial cooperation

The aim of cooperation shall be to:

- (...) (d) make the most of Tunisia’s human resources and industrial potential through better use of policy in the fields of **innovation** and research and **technological** development; (...)

Article 56

Telecommunications and information **technology**

Cooperation shall focus on:

- (a) telecommunications in general;
- (b) standardisation, conformity testing and certification for information **technology** and telecommunications;
- (c) dissemination of new information **technologies**, particularly in relation to networks and the interconnection of networks (ISDN — integrated services digital networks — and EDI — electronic data interchange);
- (d) stimulating research on and development of new communication and information **technology** facilities to develop the market in equipment, services and applications related to information **technology** and to communications, services and installations.”

11. EU – South Africa RTA (in force since 01 Jan. 2000):

“TITLE IV – ECONOMIC COOPERATION

(...) Article 51 – Industry

The aim of cooperation in this area is to facilitate the restructuring and modernisation of the South African industry while fostering its competitiveness and growth and to create conditions favourable to mutually beneficial cooperation between South African and Community industry.

The aim of the cooperation shall be, inter alia:

- (...) (d) to promote improved utilisation of South Africa's human resources and industrial potential through, inter alia, the facilitation of access to credit and investment finance and support to industrial **innovation**, **technology** transfer, training, research and **technological** development.

(...) Article 53 – Trade development

(...) 2. Cooperation in the field of trade development shall in particular focus on the following:

- (...) (d) know-how and **technology** transfer through investment and joint ventures;

Article 54 – Micro-enterprises and small and medium-sized enterprises

The Parties shall aim to develop and strengthen micro enterprises (MEs) and small and medium-sized enterprises (SMEs) in South Africa, as well as to promote cooperation between SMEs in the Community and in South Africa and the region in a manner that is sensitive to gender equality. The Parties shall, inter alia:

- (...) (b) provide assistance required by MEs and SMEs, whatever their legal status, in areas such as financing, skills training, **technology** and marketing;

Article 55 – Information society telecommunications and information **technology**

1. The Parties agree to cooperate in the area of information and communication **technology** (ICT) which they consider as key sectors of modern society and which are vital to economic and social development and to the development of an information society. Communication in this context encompasses post, broadcasting, telecommunications, information **technologies**. The aim of cooperation shall be to:

- (a) improve the access of South African public and private entities to means of communications, electronics and information **technologies** through support to the development of infrastructural networks, human resources and appropriate information society policies in South Africa;
- (b) support cooperation between the countries of the southern African region in this area, in particular in the context of satellite **technology**;
- (c) address the challenges of globalisation, new **technologies**, institutional and sector restructuring, and the developing gap in basic information services and in advanced services.

2. Cooperation shall include among others:

- (a) dialogue on different aspects of information society, including regulatory aspects and communications policy;
- (b) information exchanges and possible technical assistance on regulation, standardisation, conformity testing and certification of information and communications **technologies** and the use of frequencies;
- (c) dissemination of new information and communication **technologies**, and the development of new facilities, particularly in relation to interconnection of networks and interoperability of applications;
- (d) promotion and implementation of joint research, **technological** development on projects in the field of new **technologies** related to the information society;

Article 56 – Postal cooperation

Cooperation in this area shall include:

- (...) (c) promotion and implementation of joint projects, including research, on **technological** development in this sector.

Article 57 – Energy

(...) 2. Cooperation shall specifically aim:

- (...) (g) to promote transfer and use of environmentally friendly **technologies**;

Article 58 – Mining and minerals

The aim of cooperation in this area is, inter alia:

- (...) (d) to cooperate on mining and minerals **technology** research and development.

TITLE VI – COOPERATION IN OTHER AREAS

Article 83 – Science and **technology**

The Parties undertake to intensify scientific and **technological** cooperation. Detailed arrangements for the implementation of this objective have been set out in a separate agreement, which entered into force in November 1997.”

12. EU – Morocco RTA (in force since 01 Mar. 2000):

“TITLE V – ECONOMIC COOPERATION

Article 45

Regional cooperation

In order to make the most of this Agreement, the Parties shall foster all activities which have a regional impact or involve third countries, notably:

- (a) intra-regional trade within the Maghreb;
- (b) environmental matters;
- (c) the development of economic infrastructure;
- (d) research in science and **technology**; (...)

(...) Article 47

Scientific, technical and **technological** cooperation

The aim of cooperation shall be to:

- (a) encourage the establishment of permanent links between the Parties' scientific communities, notably by means of:

- providing Morocco with access to Community research and **technological** development programmes in accordance with Community rules governing non-Community countries' involvement in such programmes,
- Moroccan participation in networks of decentralised cooperation,
- promoting synergy in training and research;
- b) improve Morocco's research capabilities;
- c) stimulate **technological innovation** and the transfer of new **technology** and know-how; (...)

Article 49 – Industrial cooperation

The aim of cooperation shall be to:

- (...) (d) make the most of Morocco's human resources and industrial potential through better use of policy in the fields of **innovation** and research and **technological** development; (...)

Article 56

Telecommunications and information **technology**

Cooperation shall focus on:

- (a) telecommunications in general;
- (b) standardisation, conformity testing and certification for information **technology** and telecommunications;
- (c) dissemination of new information **technologies**, particularly in relation to networks and the interconnection of networks (ISDN integrated services digital networks and EDI electronic data interchange);
- (d) stimulating research on and development of new communication and information **technology** facilities to develop the market in equipment, services and applications related to information **technology** and to communications, services and installations.”

13. EU – Israel RTA (in force since 01 Jun. 2000):

“TITLE V – SCIENTIFIC AND **TECHNOLOGICAL** COOPERATION

Article 40

The Parties undertake to intensify scientific and **technological** cooperation. Detailed arrangements for the implementation of this objective shall be set out in separate agreements concluded for this purpose.

Article 52

Information infrastructures and telecommunications

The Parties shall promote cooperation in the development of information infrastructures and telecommunications to their mutual benefit. Cooperation shall focus primarily on pursuing actions related to research and **technological** development, harmonisation of standards and modernisation of **technology**.

Article 50

Environment

(...) 2. Cooperation shall focus, in particular, on:

- (...) promotion of programmes. joint **technological** and research programmes.”

14. East African Community (EAC) RTA (Goods: in force since 07 Jul. 2000; Services: 01 Jul. 2010):

“CHAPTER TWELVE: CO-OPERATION IN INVESTMENT AND INDUSTRIAL DEVELOPMENT

ARTICLE 80 Strategy and Priority Areas

- 1. For purposes of Article 79 of this Treaty, the Partner States shall take measures to:
 - (...) (b) promote linkages among industries within the Community through diversification, specialisation and complementarity, in order to enhance the spread effects of industrial growth and to facilitate the transfer of **technology**;
 - (...)

- (e) promote industrial research and development and the transfer, acquisition, adaptation and development of modern **technology**, training, management and consultancy services through the establishment of joint industrial institutions and other infrastructural facilities;
- (f) harmonise and rationalise investment incentives including those relating to taxation of industries particularly those that use local materials and labour with a view to promoting the Community as a single investment area;
- (g) disseminate and exchange industrial and **technological** information;

CHAPTER FIFTEEN: CO-OPERATION IN INFRASTRUCTURE AND SERVICES

ARTICLE 89 – Common Transport and Communications Policies

(...) In order to promote the achievement of the objectives of the Community as set out in Article 5 of this Treaty, the Partner States undertake to evolve co-ordinated, harmonised and complementary transport and communications policies; improve and expand the existing transport and communication links; and establish new ones as a means of furthering the physical cohesion of the Partner States, so as to facilitate and promote the movement of traffic within the Community. To this end, the Partner States shall take steps, inter alia, to:

- (...) (h) exchange information on **technological** developments in transport and communications.

ARTICLE 92 – Civil Aviation and Civil Air transport

1. The Partner States shall harmonise their policies on civil aviation to promote the development of safe, reliable, efficient and economically viable civil aviation with a view to developing appropriate infrastructure, aeronautical skills and **technology**, as well as the role of aviation in support of other economic activities.

ARTICLE 100 – Meteorological Services

(...) 3. The Partner States shall exchange information and expertise concerning new developments in meteorological science and **technology** including the calibration and comparison of instruments.

CHAPTER SIXTEEN: CO-OPERATION IN THE DEVELOPMENT OF HUMAN RESOURCES, SCIENCE AND **TECHNOLOGY**

(...) ARTICLE 103 – Science and **Technology**

1. Recognising the fundamental importance of science and **technology** in economic development, the Partner States undertake to promote co-operation in the development of science and **technology** within the Community through:

- (a) the joint establishment and support of scientific and **technological** research and of institutions in the various disciplines of science and **technology**;
- (b) the creation of a conducive environment for the promotion of science and **technology** within the Community;
- (c) the encouragement of the use and development of indigenous science and **technologies**;
- (d) the mobilisation of technical and financial support from local and foreign sources and from international organisations or agencies for the development of science and **technology** in the Community;
- (e) the exchange of scientific information, personnel and the promotion and publication of research and scientific findings;
- (f) the collaboration in the training of personnel in the various scientific and **technological** disciplines at all levels using existing institutions and newly established ones;
- (g) the promotion, development and application of information **technology** and other new ones throughout the Community;
- (h) establishment of common ethical guidelines for research; and
- (i) the harmonisation of policies on commercialisation of **technologies** and promotion and protection of intellectual property rights.

2. For purposes of paragraph 1 of this Article, the Partner States shall undertake such additional activities with regard to science and **technology** as the Council may determine.

CHAPTER EIGHTEEN: AGRICULTURE AND FOOD SECURITY

ARTICLE 106

Seed Multiplication and Distribution

The Partner States shall:

- (a) strengthen co-operation in quality seed development and production through research and plant breeding;
- (b) support co-operation in the establishment of gene banks;
- (c) enhance capacity in seed **technology**;

CHAPTER NINETEEN: CO-OPERATION IN ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

ARTICLE 112

Management of the Environment

- (...) 2. For purposes of paragraph 1 of this Article, the Partner States undertake to:
- (...) (f) promote the use of non-ozone depleting substances and environment- friendly **technologies**;
 - (...) (i) exchange information on atmospheric, industrial and other forms of pollution and conservation **technology**;

15. Southern African Development Community (SADC) RTA (Goods: in force since 01 Sep. 2000; Services: in force since 13 Jan. 2022):

“ANNEX VII CONCERNING TRADE IN SUGAR

(...) ARTICLE 5

CO-OPERATION IN AREAS OF COMMON INTEREST

1. Co-operation in areas of common interest as identified by the TCS will be aimed at facilitating a balanced expansion of national industries with the ultimate objective of promoting the development of a regional competitive industry. Cooperation in the following areas will be established with a view to increasing efficiencies of all SADC sugar producers.

- (a) The TCS established in terms of Article 7 will initiate dialogue on the usage and upgrading of infrastructure, and adopt rules on the transfer of information in relation to sugar **technology** and research, training, promotion and marketing. (...)”

16. EU – North Macedonia RTA (Goods: in force since 01 Jun. 2001; Services: in force since 01 Apr. 2004):

“TITLE VIII

COOPERATION POLICIES

(...) Article 82

Statistical cooperation

(...) 2. To this end the Parties may cooperate in particular:

- to promote the development of an efficient statistical service in the former Yugoslav Republic of Macedonia based on an appropriate institutional framework,
- to develop and maintain national capacity for collecting, processing and disseminating statistical information of high quality using modern **technologies** in the most efficient way,
- to provide private and public sector economic operators and the research community with the appropriate socio- economic data needed to monitor state reforms,
- to enable the national statistical system to adopt the principles and standards of the European statistical system,
- to ensure the confidentiality of individual data.

Article 98

Transport

2. Cooperation shall include the following priority areas:

(...) — the promotion of joint **technological** and research programmes,

Article 99

Energy

(...) 2. Cooperation shall include the following in particular:

- formulation and planning of energy policy, including modernisation of infrastructure, improvement and diversification of supply and improvement of access to the energy market, including facilitation of transit,
- management and training for the energy sector and transfer of **technology** and know-how, (...)

Article 102

Cooperation in research and **technological** development

1. The Parties shall promote bilateral cooperation in civil scientific research and **technological** development (RTD) on the basis of mutual benefit and, taking into account the availability of resources, adequate access to their respective programmes, subject to appropriate levels of effective protection of intellectual, industrial and commercial property rights (IPR).

2. Science and **technology** cooperation shall cover:

- formulation and planning of energy policy, including modernisation of infrastructure, improvement and diversification of supply and improvement of access to the energy market, including facilitation of transit,
- management and training for the energy sector and transfer of **technology** and know-how, (...)

(...) - the exchange of scientific and technical information,

- the organisation of joint scientific meetings,
- joint RTD activities,
- training activities and mobility programmes for scientists, researchers and technicians engaged in RTD on both sides. (...)

17. EU – Jordan RTA (in force since 01 May 2002):

“TITLE V

ECONOMIC COOPERATION

Article 62

Regional cooperation

The Parties will encourage operations having a regional impact or associating other countries of the region, with a view to promoting regional cooperation.

Such operations may include:

- trade at intra-regional level,
- environmental issues,
- development of economic infrastructures,
- scientific and **technological** research,
- cultural matters,
- customs matters,

(...) Article 64

Scientific and **technological** cooperation

Cooperation has the objective of:

(...) (c) stimulating **technological innovation**, transfer of new **technologies**, and dissemination of know-how, in particular with a view to accelerating the adjustment of Jordanian industrial capability.

Article 66

Industrial cooperation

Cooperation shall promote and encourage in particular:

- industrial cooperation between economic operators in the Community and in Jordan, including access for Jordan to the Community’s networks for the rapprochement of businesses and to networks created in the context of decentralised cooperation,

- the modernisation and restructuring of Jordanian industry,
- the establishment and promotion of an environment favourable to the development of private enterprise, in order to stimulate the growth and the diversification of industrial production,
- cooperation between small and medium-sized enterprises in the Community and in Jordan,
- **technology** transfer, **innovation** and R & D,
- diversification of industrial output in Jordan,
- the enhancement of human resources,
- improvement of access to investment finance,
- stimulation of **innovation**,
- improvement of information support services.

Article 73

Information infrastructures and telecommunications

Cooperation shall focus on:

- (a) telecommunications in general;
- (b) standardisation, conformity testing and certification for information **technology** and telecommunications;
- (c) dissemination of new information **technologies**, particularly in relation to networks and the interconnection of networks (ISDN (integrated services digital networks) and EDI (electronic data interchange));
- (d) stimulating research on and development of new communication and information **technology** facilities to develop the market in equipment, services and applications related to information **technology** and to communications, services and installations.”

18. Japan – Singapore RTA (in force since 30 Nov. 2002):

“CHAPTER 15 – SCIENCE AND **TECHNOLOGY**

Article 115 – Co-operation in the Field of Science and **Technology**

1. The Parties, recognizing that science and **technology**, particularly in advanced areas, will contribute to the continued expansion of their respective economies in the medium and long term, shall develop and promote co-operative activities between the governments of the Parties (hereinafter referred to in this Chapter as “Co-operative Activities”) for peaceful purposes in the field of science and **technology** on the basis of equality and mutual benefit. (...)

Article 117 – Joint Committee on Science and **Technology**

1. For the purposes of effective implementation of this Chapter, a Joint Committee on Science and **Technology** (hereinafter referred to in this Article as “the Committee”) shall be established. The functions of the Committee shall be:

- (a) reviewing and discussing the co-operative relationship in the field of scientific and **technological** development of the Parties and the progress of Co-operative Activities and Other Co-operative Activities;
- (b) exchanging views and information on scientific and **technological** policy issues;
- (...) (e) discussing other issues relating to science and **technology**.

(...) Article 118 – Protection and Distribution of Intellectual Property Rights and other Rights of a Proprietary Nature

1. Scientific and **technological** information of a non-proprietary nature arising from co-operative activities may be available to the public by the government of either Party.”

19. Gulf Cooperation Council RTA (in force since 01 Jan. 2003):

“Chapter VI

Scientific and Technical Research

Article Eighteen: Scientific and Technical Research

Member States shall adopt, as basic priorities for development, policies to support joint scientific and technical research, and develop their own joint scientific, technical,

and information **technology** databases, including the adoption of the following policies:

1. Increase the funds allocated to scientific and technical research.
2. Encourage and provide the necessary incentives to the private sector to contribute to the funding of specialized scientific and technical research,
3. Ensure that international companies operating in the GCC States sponsor specialized programs for scientific and technical research in the Member States.
4. Establish a native scientific, technical, and information **technology** base that fully utilizes the expertise of international and regional organizations.
5. Integrate scientific research institutions in the GCC States in order to develop and activate the scientific, technical, and information **technology** base referred to in this article and work jointly to set up common research centers.

Article Nineteen: Utilization of the Scientific, Technical, and Information **Technology** Base

For the purposes of developing and fully utilizing their scientific, technical, and information **technology** base, Member States shall take the following measures, as a minimum:

1. Develop mechanisms for achieving optimal utilization of scientific and technical research in both public and private sectors, and continued coordination between the executive bodies on the one hand and the outputs of the scientific, technical, and information **technology** base, on the other.
2. Make the outputs of the scientific, technical, and information **technology** base available to specialists, researchers, businessmen, and investors through simplified procedures.
3. Support and develop technical information networks, systems and centers in member states, and adopt programs to facilitate information dissemination and exchange among the institutions of scientific and technical research in the GCC States.”

20. EU – Chile RTA (Goods: in force since 01 Feb. 2003; Services: in force since 01 Mar. 2005):

“PART I
GENERAL AND INSTITUTIONAL PROVISIONS
TITLE I
NATURE AND SCOPE OF THE AGREEMENT

Article 2 – Objectives and scope

(...) 3. This Agreement covers in particular the political, commercial, economic and financial, scientific, **technological**, social, cultural and cooperation fields. It may be extended to other areas to be agreed upon by the Parties.

4. In accordance with the objectives defined above, this Agreement provides for the following:

- (a) the enhancement of political dialogue on bilateral and international matters of mutual interest, which will be conducted through meetings at different levels;
- (b) the strengthening of cooperation in the political, commercial, economic and financial, scientific, **technological**, social, cultural and cooperation fields, as well as other areas of mutual interest; (...)

PART III
COOPERATION
TITLE I
ECONOMIC COOPERATION

Article 17

Industrial cooperation

2. The central aims shall be:

- (a) to boost contacts between the Parties' economic operators, with the aim of identifying sectors of mutual interest, especially in the area of industrial cooperation, transfers of **technology**, trade and investment;

- (b) to strengthen and promote dialogue and exchanges of experience between networks of European and Chilean economic operators;
- (c) to promote industrial cooperation projects, including projects deriving from the process of privatisation and/or opening-up of the Chilean economy; these could cover the establishment of forms of infrastructure stimulated by European investment through industrial cooperation between businesses; and
- (d) to strengthen **innovation**, diversification, modernisation, development and product quality in businesses.

Article 20

Cooperation on services

In compliance with the WTO General Agreement on Trade in Services (the GATS) and within the bounds of their own fields of competence, the Parties shall support and intensify cooperation with each other, reflecting the growing importance of services in the development and growth of their economies. Cooperation aimed at promoting the development and diversification of productivity and competitiveness in Chile's service sector shall be stepped up. The Parties shall determine the sectors on which cooperation will concentrate, and they shall also focus on the means available for this purpose. Activities shall be directed particularly at SMEs and at facilitating their access to sources of capital and market **technology**. In that connection, special attention shall be devoted to promoting trade between the Parties and third countries.

Article 22

Cooperation on energy

1. The aim of the cooperation between the Parties shall be to consolidate economic relations in key sectors such as hydroelectricity, oil and gas, renewable energy, energy-saving **technology** and rural electrification.
2. Among the objectives of cooperation shall be:
 - (a) exchanges of information in all suitable forms, including developing databases shared by institutions of both Parties, and training and conferences;
 - (b) transfers of **technology**; (...)
 - (d) involvement of public and private operators from both regions in **technological** development and common-infrastructure projects, including networks with other countries in the region; (...)

Article 24

- Cooperation on agriculture and rural sectors and sanitary and phytosanitary measures (...)
2. The cooperation shall focus on capacity-building, infrastructure and **technology** transfer, addressing matters such as: (...)
 - (d) technical assistance for the improvement of productivity and the exchange of alternative crop **technologies**;
 - (e) scientific and **technological** experiments;

Article 27

Cooperation on statistics

- (...) 2. Cooperation shall focus on:
- (a) homologation of statistical methods to generate indicators that are comparable between the Parties;
 - (b) scientific and **technological** exchanges with statistical institutions of the Member States of the European Union, and with Eurostat; (...)

Article 28

Cooperation on the environment

- (...) (e) exchanges of information, **technology** and experience in areas including environmental standards and models, training and education;

Article 35

Cooperation on mining

The Parties commit themselves to promoting cooperation on mining, mainly through agreements aimed at:

- (a) fostering exchanges of information and experience, in the application of clean **technologies** in the mining productive processes;
(...) (b) promoting joint efforts to develop scientific and **technological** initiatives in the field of mining.

TITLE II

SCIENCE, **TECHNOLOGY** AND INFORMATION SOCIETY

Article 36

Cooperation on science and **technology**

1. The aims of cooperation on science and **technology**, carried out in the mutual interest of both Parties and in compliance with their policies, particularly as regards the rules for use of intellectual property resulting from research, shall be:

- (a) policy dialogue and exchanges of scientific and **technological** information and experience at regional level, particularly in respect of policies and programmes;
(b) promotion of lasting relations between the two Parties' scientific communities; and
(c) intensification of activities to promote linkage, **innovation** and **technology** transfer between European and Chilean partners. (...)

2. Special emphasis shall be placed on human potential building as the real long-lasting basis of scientific and **technological** excellence and the creation of permanent links between both scientific and **technological** communities, at both national and regional levels. (...)

3. The following forms of cooperation shall be encouraged:

- (...) (d) the promotion of activities linked to scientific and **technological** forward studies which contribute to the long term development of both Parties; and

6. The Parties shall promote their respective entities' participation in their respective scientific and **technological** programmes in pursuit of mutually beneficial scientific excellence and in accordance with their respective provisions governing the participation of legal entities from third countries.”

21. EU – Lebanon RTA (in force since 01 Mar. 2003):

“TITLE V

ECONOMIC AND SECTOR COOPERATION

Article 44

Scientific, technical and **technological** cooperation

The aim of cooperation shall be to:

- (a) encourage the establishment of permanent links between the Parties' scientific communities, notably by means of:

— providing Lebanon with access to Community research and **technological** development programmes in accordance with Community rules governing non-Community countries' involvement in such programmes,

— Lebanese participation in networks of decentralised cooperation,

— promoting synergy between training and research;

- (b) improve Lebanon's research capabilities; and its **technological** development;

(c) stimulate **technological innovation** and the transfer of new **technology** and dissemination of know-how;

(d) study the ways Lebanon can participate in European framework programmes for research.

Article 46

Industrial cooperation

The aim of cooperation shall be to:

(...) (d) enhance Lebanon's human resources and industrial potential through better use of policy in the fields of **innovation** and research and **technological** development;

(...) (f) encourage the development of SMEs, particularly by:

(...) — enhance human resources to encourage **innovation**, and setting up projects and economic activities.

Article 47

Promotion and protection of investment

1. Cooperation shall aim at increasing the flow of capital, expertise and **technology** to Lebanon through, inter alia:

(...) 2. Cooperation may extend to the planning and implementation of projects demonstrating the effective acquisition and use of basic **technologies**, the use of standards, the development of human resources and the creation of jobs locally.”

22. China – Hong Kong RTA - Supplement VII to the Arrangement (29 Jun. 2003):

“Article 14

Cooperation in Tourism

(...) 6. To support the expansion of cooperation between the Mainland and Hong Kong tourism enterprises; encourage mutual entry of tourism enterprises and investments in the two places to enter each other’s markets, support strategically Hong Kong service providers to set up travel agents in the Mainland; enhance the cooperation in research and development of tourism **technologies** and tourist attractions; and explore the way forward for cooperation in developing the tourism industry.

23. Singapore – Australia RTA (in force since 28 Jul. 2003):

“15 EDUCATION COOPERATION

(...) ARTICLE 3

Facilitation of Cooperation

Both Parties shall encourage and facilitate, as appropriate, the development of contacts and cooperation between their respective government agencies, educational institutions, organisations, and other entities and the conclusion of arrangements between such bodies to cooperate in the above fields. These may be achieved through:

(...) (b) development of collaborative training, joint research and development, **technology** transfer and joint ventures between appropriate authorities and institutions;”

24. China – Macao RTA - Supplement VII to the Arrangement (17 Oct. 2003):

“II. Trade and Investment Facilitation

(1) To support and align with moderate diversification of Macao’s industrial structure, the two sides agree to add cooperation in cultural industry, environmental industry as well as **innovation** and **technology** industry as supplementary components of Industrial Cooperation in the area of Trade and Investment Facilitation under “CEPA”, to further improve cooperation in the convention and exhibition industry, and add in Article 9 of Annex 6 of “CEPA” the following content: (...)

3. Cooperation in **Innovation** and **Technology** Industry

Cooperation in **innovation** and **technology** plays an important role in promoting the economic and social development of the two places. The two sides agree to strengthen cooperation in **innovation** and **technology** and support the joint development of the **innovation** and **technology** industry of both places.

3.1 Cooperation mechanism

Through the cooperation mechanism between relevant government departments of both sides, the cooperation in the area of **innovation** and **technology** of the two sides will be strengthened.

3.2 Content of Cooperation

The two sides agree to strengthen cooperation in the following areas:

3.2.1 Strengthen exchanges and sharing of information between the two places in the area of **innovation** and **technology**.

3.2.2 Progressively incorporate Macao research institutes and enterprises in the national **innovation** system and encourage Macao research personnel and organizations to participate in national science and **technology** projects.

3.2.3 Strengthen exchanges and cooperation between the two places in the area of high **technology** research, development and application, fundamental scientific research, etc. with a view to exploring market expansion.

3.3 Participation of other entities

The two sides agree to support and assist semi-official organizations, non-official organizations and the trade to play a role in promoting cooperation in the **innovation** and **technology** industry between the two places.”

25. United States – Chile RTA (in force since 01 Jan. 2004):

“Article 5.5: Cooperation

(...) 7. Each Party shall endeavor to provide the other with technical advice and assistance for the purpose of improving risk assessment techniques, simplifying and expediting customs procedures, advancing technical skills, and enhancing the use of **technologies** that can lead to improved compliance with laws and regulations governing importations.”

26. Korea – Chile RTA (in force since 01 Apr. 2004):

“Article 15.14: Information **Technology** and Cooperation

1. The Parties shall, to the extent possible, endeavour to use electronic means of communication to permit efficient dissemination of information on government procurement, particularly as regards tender opportunities offered by entities, while respecting the principles of transparency and non-discrimination.

2. The Parties shall endeavour to provide each other with technical cooperation and assistance through the development of training programs with a view to achieving a better understanding of their respective government procurement systems and statistics, as well as a better access to their respective markets.”

27. EU – Egypt RTA (in force since 01 Jun. 2004):

“Article 43

Scientific and **technological** cooperation

Cooperation shall have the objective of:

(a) encouraging the establishment of durable links between the scientific communities of the Parties, notably through:

— the access of Egypt to Community R & D programmes, in conformity with existing provisions concerning the participation of third countries,

— the participation of Egypt in networks of decentralised cooperation,

— the promotion of synergy between training and research;

(b) strengthening research capacity in Egypt;

(c) stimulating **technological innovation**, transfer of new **technologies**, and dissemination of know-how.

Article 45

Industrial cooperation

Cooperation shall promote and encourage in particular:

(...) — **technology** transfer, **innovation** and R&D,

Article 60

Regional cooperation

Regional cooperation shall focus on:

— development of economic infrastructures, — scientific and **technological** research,

— intra-regional trade, — customs matters, — cultural matters, — environmental issues.”

28. India – Thailand RTA (in force since 01 Sept. 2004):

“ARTICLE 6

Other Areas of Economic Cooperation

The Parties agree to strengthen their cooperation, but not limited to, in the following areas:

(...) Sectors of Cooperation:
Fisheries and Aquaculture;
Information & Communications **Technology**;
Space **Technology**;
Biotechnology;
Finance and Banking;
Tourism;
Infrastructure Development;
Health Care;
Construction;
Education; and
Government Procurement.
Trade and Investment Promotion:
Trade and investment fairs and exhibitions;
India-Thailand portal; and business sector dialogues.

Co-operation shall be extended to other areas, including, but not limited to, industrial cooperation, intellectual property rights, small and medium enterprises (SMEs), civil aviation, environment, forestry and forestry products, mining, energy and sub-regional development.

Measures to strengthen co-operation shall include, but not be limited to: promotion and facilitation of trade in goods and services, and investment; increasing the competitiveness of SMEs; promotion of electronic commerce; capacity building; and **technology** transfer.”

29. EFTA – Chile RTA (in force since 01 Dec. 2004):

“ARTICLE 67

Information **technology** and co-operation

1. The Parties shall, to the extent possible, endeavour to use electronic means of communication to permit efficient dissemination of information on government procurement, particularly as regards tender opportunities offered by entities, while respecting the principles of transparency and non-discrimination.

2. The Parties shall endeavour to provide each other with technical co-operation, particularly aimed at small and medium size enterprises, with a view to achieve a better understanding of their respective government procurement systems and statistics, as well as a better access to their respective markets.”

30. Japan – Mexico RTA (in force since 01 Apr. 2005):

“Section 3

Customs Cooperation for Trade Facilitation

Article 50

Customs Cooperation for Trade Facilitation

For prompt customs clearance of goods traded between the Parties, each Party, recognizing the significant role of customs authorities and the importance of customs procedures in promoting trade facilitation, shall make cooperative efforts to:

(a) make use of information and communications **technology**;

(b) simplify its customs procedures; and

(c) make its customs procedures conform, as far as possible, to relevant international standards and recommended practices such as those made under the auspices of the Customs Cooperation Council.

Chapter 14

Bilateral Cooperation

(...) Article 140

Cooperation in the Field of Supporting Industries

The Parties shall cooperate in promoting the development of supporting industries of both Parties with a view to improving the business environment and to promoting bilateral trade and investment. Such cooperation includes encouraging appropriate entities to:

(...) (c) assist actual or potential private enterprises of supporting industries through financial and **technological** support; and (...)

Article 142

Cooperation in the Field of Science and **Technology**

1. The Parties, recognizing that science and **technology** will contribute to the continued expansion of their respective economies in the medium and long term, shall develop and promote cooperative activities between the Governments of the Parties for peaceful purposes in the field of science and **technology** on the basis of equality and mutual benefit.

2. Forms of the cooperative activities under this Article may include:

(a) exchange of information regarding science and **technology** policies and programs and data;

(b) joint seminars, workshops and meetings;

(c) visits and exchanges of scientists, technical personnel or other experts;

(d) implementation of joint projects and programs;

(e) encouragement of cooperation for research and development related to industrial **technologies**; and

(f) encouragement of cooperation between educational and research institutions.

3. Scientific and **technological** information of a non-proprietary nature arising from the cooperative activities under this Article may be made available to the public by the Government of either Party.

Article 143

Cooperation in the Field of Technical and Vocational Education and Training

The Parties, recognizing that sustainable economic growth and prosperity largely depend on people's knowledge and skills, in order to raise the productivity and competitiveness of private enterprises of either Party, shall develop cooperation between the Governments of the Parties in the field of technical and vocational education and training. Such cooperation may include:

(...) (b) encouragement of technical and vocational education and training, including training of related instructors and development of training programs, particularly for the development of higher **technological** education and distance education; and

Article 145

Cooperation in the Field of Agriculture

1. The Parties, recognizing that the development in the field of agriculture in both Parties is of mutual interest and of economic and social importance for the rational and sustainable use of natural resources, shall cooperate in the field of agriculture. Such cooperation may include:

(...) (c) encouragement of joint scientific and **technological** research in agriculture including new **technologies**.

Article 147

Cooperation in the Field of Environment

1. The Parties, recognizing the need for environmental preservation and improvement to promote sound and sustainable development, shall cooperate in the field of environment. Cooperative activities under this Article may include:

(a) exchange of information on policies, laws, regulations and **technology** related to the preservation and improvement of the environment, and the implementation of sustainable development; (...)"

31. Türkiye – Palestine RTA (in force since 01 Jun. 2005):

“Article 32

Primary Fields Of Economic Cooperation

(...) 2. Parties may decide further to extend the scope of cooperation on areas of social development, transport, information, telecommunication, energy, scientific and **technological** cooperation, environment, higher education and regional issues of mutual interest.”

32. EFTA – Tunisia RTA (in force since 01 Jun. 2005):

“ARTICLE 32

Methods and means

(...) 4. Means of co-operation and assistance may include:

- (a) exchange of information, transfer of **technology** and training;
- (b) implementation of joint actions such as seminars and workshops;
- (c) technical and administrative assistance;
- (d) financial co-operation, such as preferential loans and development funds.”

33. New Zealand – Thailand RTA (in force since 01 Jul. 2005):

“ARTICLE 9.4

Areas of Cooperation

1. The Parties shall strengthen and develop cooperation efforts in investment including through:

- (a) research and development;
- (b) networking through information **technology**;
- (c) human resource development;
- (d) information exchange; and
- (e) capacity building, including for small and medium enterprises.

2. The Parties shall foster the development of cooperation in key industries, including in bio**technology**, software, electronic manufacturing and agro- processing.

ARTICLE 12.5

Other Cooperation

1. Recognizing that intellectual property rights can facilitate international trade through the dissemination of ideas, **technology** and creative works, the Parties, through their respective agencies responsible for intellectual property, shall: (...)”

34. Türkiye - Tunisia RTA (in force since 01 Jul. 2005):

“Article 38

Trade Development Trade co-operation shall primarily focus on:

(...) (i) exchanges of information on market requirements know-how and **technology** transfer through investment and joint-ventures; (...)”

35. India – Singapore RTA (in force since 01 Aug. 2005):

“CHAPTER 12 SCIENCE AND **TECHNOLOGY**

ARTICLE 12.1: CO-OPERATION IN THE FIELD OF SCIENCE AND **TECHNOLOGY**

1. The Parties, recognising that science and **technology**, particularly in advanced areas, will contribute to the continued expansion of their respective economies in the medium and long term, shall develop and promote co-operative activities between the Parties (hereinafter referred to in this Chapter as “Co-operative Activities”), for peaceful purposes in the field of science and **technology** on the basis of equality and mutual benefit.

2. The Parties shall also encourage, where appropriate, other cooperative activities between parties, one or both of whom are entities in their respective territories other than the Parties (hereinafter referred to in this Chapter as “Other Co-operative Activities”), which could inter alia, include other governmental agencies, academies of science, research institutes, enterprises, institutions of higher education and scientific societies.

3. The provisions of this Chapter shall be in addition to, and not in derogation of, the provisions of the Agreement on Cooperation in Science & **Technology** between the Ministry of Science and **Technology** of the Government of the Republic of India and the Ministry of Trade and Industry of the Government of the Republic of Singapore signed on 4th January 1995 (“the 1995 Agreement”), provided however that in the event of any inconsistency between the provisions of this Chapter and the provisions of the 1995 Agreement, the provisions of this Chapter shall prevail.

ARTICLE 12.2: AREAS AND FORMS OF CO-OPERATIVE ACTIVITIES

1. The areas of the co-operation pursuant to Article 12.1 may include research, design and development in:

- (a) marine bio**technology**;
- (b) agricultural bio**technology**;
- (c) space research;
- (d) advanced materials;
- (e) information **technology**; and
- (f) other areas agreed through mutual consultation.

2. The forms of the co-operation under paragraph 1 may include:

- (a) exchange of information and data;
- (b) joint seminars, workshops and meetings;
- (c) visits and exchange of scientists, technical personnel or other experts, including through participation in science and **technology** conferences and seminars;
- (d) implementation of joint projects and programmes; and
- (e) commercialisation of **technologies** in both countries or any third country including participation in joint ventures.

ARTICLE 12. 3: PROTECTION AND DISTRIBUTION OF INTELLECTUAL PROPERTY RIGHTS AND OTHER RIGHTS OF A PROPRIETARY NATURE

1. Scientific and **technological** information of a non-proprietary nature arising from Co-operative Activities may be made available to the public by the government of either Party. (...)

36. Jordan – Singapore RTA (in force since 22 Aug. 2005):

“CHAPTER 6 BUSINESS COOPERATION

(...) Article 6.2 Forms of Cooperation

For the purposes of Article 6.1, cooperation between the Parties means the following:

- a. jointly organising industry-specific missions with a focus on high growth sectors, including but not limited to, the info-communications **technology**, electronics, water treatment, healthcare and logistics sectors; (...)

37. EU – Algeria RTA (in force since 01 Sep. 2005):

“TITLE V

ECONOMIC COOPERATION

Article 50

Regional Cooperation

In order to maximise the impact of this Agreement vis-à-vis the development of the Euro-Mediterranean partnership and within the countries of the Maghreb, the Parties shall foster all activities which have a regional impact or involve third countries, notably:

(...) (d) scientific and **technological** research; (...)

(...) Article 51

Scientific, technical and **technological** cooperation

Cooperation shall be aimed at:

- (a) encouraging the establishment of permanent links between the Parties’ scientific communities, notably by means of:
 - the access of Algeria to Community **technological** research and development programmes, in conformity with Community provisions concerning the participation of third countries in those programmes;

- the participation of Algeria in decentralised cooperation networks;
- the promotion of synergy between training and research;
- (b) strengthening research capacity in Algeria;
- (c) stimulating **technological innovation**, the transfer of new **technologies** and know-how, implementation of **technological** research and development projects and optimisation of the results of scientific and technical research; (...)

Article 53

Industrial cooperation

Cooperation shall be aimed at:

- (...) (f) making the most of Algeria's human resources and industrial potential through better use of policy in the fields of **innovation** and research and **technological** development;

Article 60

Information society and telecommunications

Cooperation in this field shall focus in particular on:

- a dialogue on issues related to the different aspects of the information society, including telecommunications policies,
- the exchange of information and provision of any technical assistance required on regulations and standardisation, conformity testing and certification of information and communication **technologies**,
- the dissemination of advanced information and telecommunication **technologies**, including satellite **technology** and information services and **technologies**,
- the promotion and implementation of joint projects for research, technical development or industrial applications in information **technologies**, communications, telematics and information society, (...)

Article 61

Energy and mining

The aims of cooperation in the energy and mining sectors shall be:

- (a) institutional, legislative and regulatory upgrading to ensure that activities are regulated and investment promoted;
- (b) technical and **technological** upgrading to prepare energy and mining companies for the requirements of the market economy and competition;
- (...) The priority areas of cooperation in this respect shall be:
- (...) — the promotion of **technology** transfers in the energy and mining sectors.”

38. Dominican Republic - Central America - United States Free Trade Agreement (CAFTA-DR) RTA (in force since 01 Mar. 2006):

“Chapter Five

Customs Administration and Trade Facilitation

(...) Article 5.5: Cooperation

(...) 8. For purposes of facilitating regional trade, each Party shall endeavor to provide the other Parties with technical advice and assistance for the purpose of improving risk assessment techniques, simplifying and expediting customs procedures, advancing the technical skill of personnel, and enhancing the use of **technologies** that can lead to improved compliance with regard to laws or regulations governing importations.

Annex 17.9 Environmental Cooperation

(...) 2. Recognizing the benefits that would be derived from a framework to facilitate effective cooperation, the Parties negotiated the ECA. The Parties expect that the ECA will enhance their cooperative relationship, noting the existence of differences in the Parties' respective natural endowments, climatic and geographical conditions, and economic, **technological**, and infrastructure capabilities.

3. As set forth in Article V of the ECA, the Parties have identified the following priorities for environmental cooperation activities:

(...) (g) facilitating **technology** development and transfer and training to promote the use, proper operation, and maintenance of clean production **technologies;**"

39. Korea - Singapore RTA (in force since 02 Mar. 2006):

“CHAPTER 18 CO-OPERATION
ARTICLE 18.8: BROADCASTING

1. The Parties, recognising the importance of broadcasting as a means for promoting cultural exchanges and understanding and the rapid development of broadcasting **technology** and **innovative** broadcasting services, will encourage co-operation in the field of broadcasting between the Parties.

CHAPTER 17 INTELLECTUAL PROPERTY RIGHTS

(...) ARTICLE 17.5: CO-OPERATION IN THE FIELD OF INTELLECTUAL PROPERTY

2. The Parties, pursuant to paragraph 1, may co-operate in the following areas:
(...) (d) patent **technology**, licensing, and market intelligence; and

ANNEX 18A: CO-OPERATION

SECTION 1 : TRADE AND INVESTMENT PROMOTION

1. The co-operation between the Korea Trade-Investment Promotion Agency (“KOTRA”) and the International Enterprise Singapore Board (“IE Singapore”), is to be conducted pursuant to Article 18.6 and the arrangement between KOTRA and IE Singapore. Such co-operation between KOTRA and IE Singapore shall include the following:

(...) (a) joint organisation of industry specific business missions and activities which are focused on mutually agreed high growth sectors, including but not limited to, the info-communications **technology**, electronics, automotive, food & beverage and the logistics sectors;

SECTION 2 : BROADCASTING CO-OPERATION

(...) 2. On the condition that the co-operation comes within the areas of competence of both Sides, the Sides are determined to focus on co-operation, which shall include, but are not limited to the following areas:

(...) (e) facilitation of industry co-operation in areas such as co-production of television, or digital media and research and development of cutting-edge broadcast **technologies;**"

40. Trans-Pacific Strategic Economic Partnership²⁴⁷ (in force since 28 May 2006):

“CHAPTER 16 STRATEGIC PARTNERSHIP

(...) Article 16.2: Objectives

(...) 2. The Parties will establish close cooperation aimed inter alia at:

(a) strengthening and building on existing cooperative relationships among the Parties, including a focus on **innovation**, research and development; (...)

Article 16.3: Scope

1. The Parties affirm the importance of all forms of cooperation, with particular attention given to economic, scientific, **technological**, educational, cultural and primary industry cooperation in contributing towards implementation of the objectives and principles of this Agreement. Cooperation among the Parties may be extended to other areas as agreed by the Parties.

Article 16.4: Economic Cooperation

(...) 2. In pursuit of the objectives in Paragraph 1, the Parties will encourage and facilitate, as appropriate, the following activities, including, but not limited to:

²⁴⁷ According to the WTO RTAs Database, this agreement is comprised by the following parties: Brunei Darussalam; Chile; New Zealand; Singapore.

(...) (g) working together to promote the use of English and other languages as tools for small and medium enterprises, and in the use of information **technology** tools to assist the learning process, as agreed by the APEC Economic Leaders at their 12th meeting.

Article 16.5: Cooperation in Research, Science and **Technology**

1. The aims of cooperation in research, science and **technology**, carried out in the mutual interest of all Parties and in compliance with their policies, particularly as regards the rules for use of intellectual property resulting from research, will be:

- (a) to build on existing agreements or arrangements already in place for cooperation in research, science and **technology**;
- (b) to encourage, where appropriate, government agencies, research institutions, universities, private companies and other research organisations in each other's country to conclude direct arrangements in support of cooperative activities, programmes or projects within the framework of this Agreement; and
- (c) to focus cooperative activities towards sectors where mutual and complementary interests exist."

41. Japan - Malaysia (in force since 13 Jul. 2006):

"Article 140

Fields of Co-operation

The fields of co-operation under this Chapter shall include:

- (a) agriculture, forestry, fisheries and plantation;
- (b) education and human resource development;
- (c) information and communications **technology**;
- (d) science and **technology**;"

42. Guatemala – Chinese Taipei RTA (in force since 01 Jul. 2006):

"PART FIVE INTELLECTUAL PROPERTY RIGHTS CHAPTER 15
INTELLECTUAL PROPERTY

(...) Article 15.09 Technical Cooperation

The Parties shall establish a system of technical cooperation, based upon mutually agreed terms and conditions and within the framework of the WTO on matters relating to intellectual property, and in the areas of newly developed issues related to intellectual property, as well as:

- a) promote and develop information disclosure and the transfer of **technology** based on the **technological** content stated in the patent documents, for which adequate databases must be supplied; (...)

CHAPTER 20 COOPERATION

Part I – General Provisions

(...) Article 20.02 Specific Objectives

The specific objectives of this Chapter are the following:

- (...) f) to cooperate with the establishment of commercial, financial, and **technological** flows and investment between the Parties.

Article 20.08 Commercial and Industrial Cooperation

(...) 2. Said cooperation shall focus particularly on the following:

- a) to strengthen contacts among the economic agents of the Parties, through conferences, seminars and trade missions to identify commercial and technical opportunities, as well as to hold roundtable meetings, general and specific trade fairs for various sectors for the purpose of identifying and exploring areas of mutual commercial interests, to intensify trade, investment, industrial cooperation and projects for the transfer of **technology**;

(...) f) to promote cooperation projects in areas of market intelligence and research, taking into account technical assistance in production, administration, and commercialization of export businesses, as well as the promotion of **technology** transfer.

Article 20.13 Cooperation in the Energy Sector

1. The objective of the cooperation between the Parties shall be to develop their respective energy sectors, focusing on promoting the transfer of **technology** and information exchange regarding their respective legislations.

2. The cooperation in this sector will be carried out, fundamentally, by means of information exchange, training of human resources, **technology** transfer and joint **technological**, development and infrastructure projects agreed upon by the Parties, as well as the design of more efficient energy generation processes, the rational use of energy, support for the use of alternative and renewable energy sources that protect the environment, and promotion of recycling projects and waste management for energy use.

Article 20.15 Cooperation in Agricultural and Rural Sectors and Sanitary and Phytosanitary Standards

(...) 3. For the purposes of this Article, the Parties will make efforts in the following areas, but not limited thereto:

(...) c) technical assistance for productivity increase and exchange of alternative agricultural **technologies**;"

43. Panama – Singapore RTA (in force since 24 Jul. 2006):

“CHAPTER 16 STRATEGIC PARTNERSHIP

(...) Article 16.2: Scope

1. The Parties affirm the importance of all forms of cooperation, particular attention given to economic, scientific and **technological** cooperation in contributing towards implementation of the objectives and principles of this Agreement. Cooperation may be extended to other areas as mutually agreed between the Parties.

Article 16.4: Technical and Scientific Cooperation

(...) 2. Provided both Parties agree, the technical and scientific cooperation may, apart from what has been provided for in Annex 16.2, take the following between the forms:

(...) (c) joint or coordinated implementation of research and/or **technological** development programs and projects that link centres for research industry;

(d) information exchange on scientific and **technological** research;”

44. Chile – China RTA (Goods: in force since 01 Oct. 2006; Services: in force since 01 Aug. 2010):

“Chapter XIII Cooperation

Article 106 - Research, Science and **Technology**

1. The aims of cooperation in research, science and **technology**, carried out in the mutual interest of the Parties and in compliance with their policies, particularly as regards the rules for use of intellectual property resulting from research, will be:

(a) to build on existing agreements already in place for cooperation on research, science and **technology** and the follow up done by the existing Joint Commission for Scientific and Technical Cooperation between the Parties;

(b) to encourage, where appropriate, government agencies, research institutions, universities, private companies and other research organisations in each other’s country to conclude direct arrangements in support of cooperative activities, programmes or projects within the framework of this Agreement, specially related to trade and commerce; and

(c) to focus cooperative activities towards sectors where mutual and complementary interests exist, with special emphasis on information and communication **technologies** and software development to facilitate trade and commerce between the Parties.

2. In pursuit of the objectives in Article 104, the Parties will encourage and facilitate, as appropriate, the following activities including, but not limited to:

(...) (d) promoting public/private sector partnerships in support of the development of **innovative** products and services and study joint efforts to enter into new markets.

Article 109 - Small and Medium-Sized Enterprises

1. The Parties will promote a favorable environment for the development of small and medium-sized enterprises (SMEs).

2. Cooperation shall be oriented to share knowledge and good practices with SMEs. These practices should promote partnership and productive chain linkage development, downstream and upstream oriented, to improve SMEs productivity, development of capacities to increase SMEs access to markets, integrate **technology** to labor intensive processes and human resources development to increase their knowledge about Chinese and Chilean markets.

(...) 4. Co-operation shall include, among other subjects:

(...) (d) defining **technological** transference: programs oriented to transfer **technological innovation** to SMEs and to improve their productivity;

(e) increasing access to information on **technological** promotion programs for SMEs and financial support and encouragement programs for SMEs;

Article 111 - Intellectual Property Rights

1. The aim of cooperation on intellectual property rights will be:

(...) (b) to promote economic and social development, particularly in the new digital economy, **technological innovation** as well as the transfer and dissemination of **technology** to the mutual advantage of **technology** producers and users, and to encourage the development of social economic well-being, and trade;

Article 113 - Mining and Industrial Cooperation

3. In pursuit of the objectives in Article 104, the Parties will encourage and facilitate, as appropriate, the following activities including, but not limited to:

(...) (e) promotion of public/private sector partnerships and joint ventures in the support of the development of **innovative** products and services specially related to productivity in the sector activities;

(f) **technology** transfer in the areas mentioned in paragraph 2; and

(g) designing of **innovation technology** models based in public/private cooperation and association ventures.”

45. Iceland – Faroe Islands RTA (in force since 01 nov. 2006):

“Article 7

CO-OPERATION IN OTHER AREAS

1. Within the scope of this Agreement, the Contracting Parties will strengthen and broaden mutual co-operation in all relevant fields of common concern including the following:

- Culture, education, training, sport and youth
- Energy
- Environment
- Health services
- Human resource development in the public sector
- Research and **technological** development
- Resource management
- Telecommunications
- Tourism
- Transport.”

46. EU – Albania RTA (Goods: in force since 01 Dec. 2006; Services: in force since 01 Apr. 2009):

“TITLE VIII

COOPERATION POLICIES

Article 109

Cooperation in research and **technological** development

1. The Parties shall encourage cooperation in civil scientific research and **technological** development on the basis of mutual benefit and, taking into account the

availability of resources, adequate access to their respective programmes, subject to appropriate levels of effective protection of intellectual, industrial and commercial property rights.

2. Cooperation shall take due account of the priority areas related to the Community acquis in the field of research and technical development.

3. Cooperation shall be implemented according to specific arrangements to be negotiated and concluded according to the procedures adopted by each Party.”

47. Japan – Thailand RTA (in force since 01 Nov. 2007):

“Article 153

Fields of Cooperation

In order to enhance equal partnership based on the principles stipulated in Article 152, the Parties shall promote cooperation between the Governments of the Parties and, where necessary and appropriate, encourage and facilitate cooperation between parties, one or both of whom are entities in the Parties other than the Governments of the Parties, in the following fields:

(...) (e) information and communication **technology**;

(f) science, **technology**, energy and environment; (...)”

48. EU – Montenegro RTA (Goods: in force since 01 Jan. 2008; Services: in force since 01 May 2010):

“Article 89

Economic and trade policy

The Community and Montenegro shall facilitate the process of economic reform by cooperating to improve understanding of the fundamentals of their respective economies and the formulation and implementation of economic policy in market economies. To these ends, the Community and Montenegro shall cooperate to:

(...) (c) promote wider cooperation with the aim to speed up the inflow of know-how and access to new **technologies**.

Article 112

Cooperation in research and **technological** development

The Parties shall encourage cooperation in civil scientific research and **technological** development (RTD) on the basis of mutual benefit and, taking into account the availability of resources, adequate access to their respective programmes, subject to appropriate levels of effective protection of intellectual, industrial and commercial property rights (IPR). Cooperation shall take due account of the priority areas related to the Community acquis in the field of research and technical development.”

49. El Salvador - Honduras - Chinese Taipei RTA (in force since 01 mar. 2008):

“CHAPTER 17: COOPERATION

(...) Article 17.02 Specific Purposes

The specific purposes of this Chapter are the following:

(...) (f) contribute to the creation of trade, financial and **technological** flows and investment between the Parties.

Article 17.04 Cooperation Activities

(...) 3. The cooperation activities shall be carried out taking in to account:

(a) the economic, financial, environmental, geographical, social, **technological**, cultural, and legal differences between the Parties;

Article 17.05 Commercial and Industrial Cooperation

(...) 2. Such cooperation shall focus particularly on the following:

(...) (b) promote cooperation projects in areas of market information and market research; **technological** information, creation of **technological** and competitiveness databases in the fields of quality and **technology**; production, administration, and

commercialization of exporting companies and companies with exporting potential; as well as the promotion of **technology** transfer;
(c) support the education and training of human resources on international trade, quality, productivity, **innovation**, and **technological** development; and free trade zones management; and

Article 17.11 Cooperation in the Matter of Agriculture, Forestry, Aquaculture, and Fishing

(...) 3. For the purposes of this Article, the Parties will make efforts in the following areas, but not limited thereto:

(...) (c) cooperation to support the process of **technological innovation**, subsectorial competitiveness, productivity, and the exchange of alternative agricultural **technologies**;

Article 17.12 Cooperation in the Matter of Quality, Productivity, **Innovation**, and **Technological** Development

Each Party shall promote the cooperation to improve the institutional capacities and the competitiveness of the micro, small-and-medium enterprises in the fields of quality, productivity, **innovation**, and **technological** development, considering, but not limited to, the following topics:

- (a) **technological** strengthening for testing laboratories and industrial metrology;
- (b) assistance for updating academic curricula of technical careers (middle level education, technical education, and higher education);
- (c) support with internships related to the fields of quality and productivity, **technological innovation**, and development, for private enterprises, academic and public sector employees; and
- (d) strengthen the capacities of human resources of the public sector, in fields related to quality, productivity, **innovation**, and **technological** development.”

50. Panama - Chile (in force since 07 Mar. 2008):

“Artículo 5.5: Cooperación aduanera

(...) 3. La cooperación incluirá, entre otros, aspectos relativos a:

(...) (g) incrementar el uso de **tecnologías** que pudieran conducir a un mayor cumplimiento de las leyes y regulaciones de importación aplicables;”

51. Japan - Indonesia (in force since 01 Jul. 2008):

“Chapter 13

Cooperation

Article 134

Basic Principles

The Parties shall promote cooperation under this Agreement for their mutual benefits in order to liberalize and facilitate trade and investment between the Parties and to promote the well-being of the peoples of the Parties. For this purpose, the Parties shall cooperate between the Governments of the Parties and, where necessary and appropriate, encourage and facilitate cooperation between the parties other than the Governments of the Parties, in the following fields:

(...) (f) information and communications **technology**;

Article 104

Cooperation

(...) 3. (a) Areas of cooperation under this Article shall include policy development, capacity building, and **technology** transfer.”

52. EU – Bosnia Herzegovina (Goods: in force since 11 Jul. 2008; Services: 12 Jan. 2016):

“ARTICLE 109

Cooperation on research and **technological** development

The Parties shall encourage cooperation in civil scientific research and **technological** development on the basis of mutual benefit and, taking into account the availability of resources, adequate access to their respective programmes, subject to appropriate levels of effective protection of intellectual, industrial and commercial property rights. Cooperation shall take due account of the priority areas related to the Community acquis in the field of research and **technological** development.”

53. Brunei Darussalam - Japan (in force since 31 Jul. 2008):

“Article 94
Cooperation
3. (a) Areas of cooperation under this Article may include:
(i) policy development;
(ii) human resource development;
(iii) **technological** development; and
(iv) other areas of cooperation to be mutually agreed by the Parties.

Chapter 9
Cooperation
(...) Article 102
Fields of Cooperation
The fields of cooperation under this Chapter shall include:
(a) trade and investment promotion;
(b) small and medium enterprises;
(c) agriculture, forestry and fisheries;
(d) tourism;
(e) education and human resource development;
(f) information and communications **technology**;
(g) science and **technology**;
(h) environment;
(i) intellectual property;
(j) land transportation; and
(k) other fields to be mutually agreed upon by the Parties.”

54. ASEAN – Japan RTA (Goods: in force since 01 Dec. 2008; Services: in force since 01 Aug. 2020):

“ Chapter 8
Economic Cooperation
(...) Article 53
Fields of Economic Cooperation
The Parties, on the basis of mutual benefit, shall explore and undertake economic cooperation activities in the following fields:
(a) Trade-Related Procedures;
(b) Business Environment;
(c) Intellectual Property;
(d) Energy;
(e) Information and Communications **Technology**; (...) »

55. Japan – Philippines RTA (in force since 11 Dec. 2008):

“Article 119
Cooperation
1. The areas and forms of cooperation referred to in paragraph 2 of Article 117 may include, but not be limited to:
(...) (f) technical assistance to be agreed upon between the Parties in the development of information and communications **technology**-related projects for efficient administration of intellectual property protection system.”

56. EU – CARIFORUM States²⁴⁸ RTA (in force since 29 Dec. 2008):

“PART I

TRADE PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

(...) Article 8

Cooperation priorities

1. Development cooperation as provided for in Article 7 shall be primarily focused on the following areas as further articulated in the individual Chapters of this Agreement:
(...) (vi) The development of CARIFORUM **innovation** systems, including the development of **technological** capacity;

CHAPTER 2

Innovation and intellectual property

(...) Section 1

Innovation

(...) Article 135

Cooperation in the area of competitiveness and **innovation**

1. The Parties recognise that the promotion of creativity and **innovation** is essential for the development of entrepreneurship and competitiveness and the achievement of the overall objectives of this Agreement.

2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:

(a) promotion of **innovation**, diversification, modernisation, development and product and process quality in businesses;

(...) (f) promotion of partnerships for research and development activities in the CARIFORUM States in order to improve their **innovation** systems; and

(g) intensification of activities to promote linkages, **innovation** and **technology** transfer between CARIFORUM and European Community partners.

Article 136

Cooperation on science and **technology**

1. The Parties will foster the participation of their research and **technological** development bodies in the cooperation activities in compliance with their internal rules. Cooperative activities may take the following forms:

(a) joint initiatives to raise the awareness of the science and **technology** capacity building programmes of the European Community, including the international dimension of 7th Framework Programme for Research and **Technological** Development (FP7) and possible successor programmes, as appropriate;

(b) joint research networks in areas of common interest;

(c) exchanges of researchers and experts to promote project preparation and participation in FP7 and in the other research programmes of the European Community;

(d) joint scientific meetings to foster exchanges of information and interaction and to identify areas for joint research;

(e) promotion of advanced science and **technology** studies which contribute to the long term sustainable development of both Parties;

(f) development of links between the public and private sectors;

(g) evaluation of joint work and the dissemination of results;

(h) policy dialogue and exchanges of scientific and **technological** information and experience at regional level;

(i) exchange of information at regional level on regional science and **technology** programmes;

(j) participation in the Knowledge and **Innovation** Communities of the European Institute of **Innovation** and **Technology**.

2. Special emphasis will be put on human potential building as a long-lasting basis of scientific and **technological** excellence and the creation of sustainable links between

²⁴⁸ According to the WTO RTAs Database, the CARIFORUM States at that point of time were: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

the scientific and **technological** communities of the Parties, at both national and regional levels.

3. Research centres, higher-education institutions, and other stakeholders, including micro, small and medium enterprises, located in the Parties shall be involved in this cooperation as appropriate.

4. The Parties shall promote the participation of their respective entities in each other's scientific and **technological** programmes in pursuit of mutually beneficial scientific excellence and in accordance with their respective provisions governing the participation of legal entities from third countries.

Article 137

Cooperation on information society and information and communication **technologies**

1. The Parties recognise that information and communications **technologies** (ICT) are key sectors in a modern society and are of vital importance to foster creativity, **innovation** and competitiveness, as well as the smooth transition to the information society.

Article 138

Cooperation on eco-**innovation** and renewable energy

(...) 2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (a) projects related to environmentally-friendly products, **technologies**, production processes, services, management and business methods, including those related to appropriate water-saving and Clean Development Mechanism applications;

(...) PART I

TRADE PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

(...) Article 8

Cooperation priorities

1. Development cooperation as provided for in Article 7 shall be primarily focused on the following areas as further articulated in the individual Chapters of this Agreement:

(...) (v) Enhancing the **technological** and research capabilities of the CARIFORUM States so as to facilitate development of, and compliance with, internationally recognised sanitary and phytosanitary measures and technical standards and internationally recognised labour and environmental standards;

(vi) The development of CARIFORUM **innovation** systems, including the development of **technological** capacity; (...);”

57. China – Singapore RTA (in force since 01 Jan. 2009):

“CHAPTER 11 ECONOMIC COOPERATION

ARTICLE 4

Participation in China’s Regional Development

(...) 3. Recognising that the China-Singapore (Chongqing) Demonstration Initiative on Strategic Connectivity is the key priority demonstration project under China’s Belt and Road Initiative, Western Region Development and Yangtze River Economic Belt strategies, both Parties agree to work closely in four priority areas of collaboration, viz. financial services, aviation, transport and logistics, and information and communications **technology**, in order to enhance connectivity and drive the development of Western China. The Parties also agree to accord the Initiative with necessary **innovative** measures, including but not limited to policy and institutional **innovations**, which shall be consistent with China’s Comprehensive Deepening of Reforms.”

58. United States – Peru RTA (in force since 01 Feb. 2009):

“Article 5.5: Cooperation

(...) 8. For purposes of facilitating trade between the Parties, each Party shall endeavor to provide the other Parties with technical advice and assistance for the purpose of

improving risk assessment and risk management techniques, facilitating the implementation of international supply chain standards, simplifying and expediting customs procedures for the timely and efficient clearance of goods, advancing the technical skill of personnel, and enhancing the use of **technologies** that can lead to improved compliance with regard to a Party's laws or regulations governing importations.

Chapter Eighteen Environment

Article 18.10: Environmental Cooperation

1. The Parties recognize the importance of strengthening their capacity to protect the environment and of promoting sustainable development in concert with strengthening their trade and investment relations.

2. The Parties are committed to expanding their cooperative relationship on environmental matters, recognizing it will help them achieve their shared environmental goals and objectives, including the development and improvement of environmental protection, practices, and **technologies**.”

59. Peru – Chile RTA (in force since 01 Mar. 2009):

“Capítulo 18 Cooperación y Promoción Comercial

Artículo 18.1: Cooperación

1. Los Partes promoverán la cooperación en materias económicas tales como políticas y técnicas comerciales; políticas financieras, monetarias y de hacienda pública; materias aduaneras; normas zoo y fitosanitarias y bromatológicas; energía y combustibles, transporte y comunicaciones; los servicios modernos, tales como **tecnología**, ingeniería, consultoría y otros.

Artículo 5.5: Cooperación Aduanera

(...) 3. Sin perjuicio de lo establecido en otros acuerdos de cooperación, las Partes se comprometen a cooperar en el cumplimiento de sus leyes y regulaciones en lo concerniente a:

(...) (g) incrementar el uso de las **tecnologías**; y»

60. Chile – Australia RTA (in force since 09 Mar. 2009):

“Chapter 18 - Cooperation

(...) Article 18.3:

Innovation, Research and Development

Cooperation in **innovation**, research and development will be focused on cooperative activities in sectors where mutual and complementary interests exist. Among other activities, the Parties will encourage the exchange of experts and information. Where appropriate, they will also promote partnerships in the support of the development of **innovative** products and services and activities to promote linkage, **innovation** and **technology** exchange.”

61. Chile – Colombia RTA (in force since 08 May 2009):

“Capítulo 17 Laboral

(...) Artículo 17.3: Cooperación Laboral

1. Las Partes reconocen la importancia de la cooperación bilateral para fortalecer las acciones en materia laboral. En este sentido, las Partes convienen en desarrollar actividades en las áreas de cooperación enumeradas en el listado siguiente, el cual no tiene carácter excluyente:

(...) (k) promoción de la **innovación tecnológica**; (...)

Capítulo 19 Cooperación

Artículo 19.1: Objetivos

Las Partes acuerdan ampliar y profundizar el Convenio Básico de Cooperación, conforme a los siguientes objetivos adicionales del mismo:

- (a) adecuando el marco para la cooperación como un instrumento para expandir y mejorar los beneficios de este Acuerdo;
- (b) fortaleciendo y desarrollando las relaciones de cooperación existentes entre las Partes, incluyendo la focalización hacia la **innovación**, la investigación y el desarrollo, especialmente cuando ellas otorguen valor agregado a las relaciones establecidas en este Acuerdo;
- (c) creando nuevas oportunidades para el comercio y la inversión, promoviendo la competitividad e **innovación** e incluyendo la participación de los sectores público, privado y académico;
- (d) apoyando el rol del sector privado en la promoción y construcción de alianzas estratégicas con el fin de impulsar el crecimiento económico y el desarrollo mutuo, especialmente en relación a las pequeñas y medianas empresas; y
- (e) fortaleciendo la capacidad comercial de las Partes, entendiendo por tal al conjunto de actividades orientadas a construir capacidad institucional, física y humana, para beneficiarse más ampliamente del intercambio comercial mundial, con especial énfasis en la cooperación económica, y en investigación, ciencia, **innovación** y **tecnología**.

Artículo 19.4: Cooperación en **Innovación**, Investigación y Desarrollo

1. Los objetivos de la cooperación en los ámbitos de la **innovación**, investigación y desarrollo, con especial referencia a la ciencia y **tecnología**, serán:

- (a) fomentar, cuando sea apropiado, que las agencias gubernamentales, instituciones de investigación, universidades, empresas privadas y otras organizaciones de investigación en los respectivos países establezcan acuerdos directos para desarrollar las actividades de cooperación, programas y proyectos conjuntos dentro del marco del presente Acuerdo; y
- (b) focalizar las actividades de cooperación hacia sectores donde existan intereses mutuos y complementarios.

Artículo 5.6: Cooperación Aduanera

(...) 9. Con el fin de facilitar el comercio entre las Partes, cada Parte se esforzará para proporcionar a la otra Parte asesoría y asistencia técnica con el propósito de mejorar las técnicas de evaluación y administración de riesgos, simplificando y haciendo más expeditos los procedimientos aduaneros para el despacho oportuno y eficiente de las mercancías, mejorar las habilidades técnicas del personal e incrementar el uso de **tecnologías** que puedan conducir al mejor cumplimiento de la legislación o regulaciones que rijan las importaciones de una Parte.”

62. Canada – Peru RTA (in force since 01 Aug. 2009):

“Chapter 18 - Trade-Related Cooperation

Article 1801: Objectives

1. Recognizing that trade-related cooperation is a catalyst for the reforms and investments necessary to foster trade-driven economic growth and adjustment to liberalized trade, the Parties agree to promote trade-related cooperation pursuant to the following objectives:

- (a) to strengthen the capacities of the Parties to maximize the opportunities and benefits deriving from this Agreement;
- (b) to strengthen and develop cooperation at a bilateral, regional or multilateral level;
- (c) to foster new opportunities for trade and investment, stimulating competitiveness and encouraging **innovation**, including dialogue and cooperation among their respective academies of science, governmental organizations, non-governmental organizations, universities, colleges, as well as their science, research and **technological** centers and institutes, and private sector enterprises and firms in areas of mutual interest relating to science and **technology** and **innovation**; and
- (d) to promote sustainable economic development, with an emphasis on small and medium sized enterprises, in order to contribute to the reduction of poverty through trade.”

63. Peru – Singapore RTA (in force since 01 Aug. 2009):

“CHAPTER 5: CUSTOMS

(...) ARTICLE 5.5: COOPERATION

1. To the extent permitted by their domestic law, the customs administrations of the Parties may, as they deem fit, assist each other, in relation to originating goods, by providing information on:

(...) (e) advancing technical skills and the use of **technology**.”

64. Japan – Viet Nam RTA (in force since 01 Oct. 2009):

“Chapter 12

Cooperation

Article 111

Basic Principles

The Parties shall, in accordance with their respective applicable laws and regulations, promote cooperation under this Agreement for their mutual benefits in order to liberalize and facilitate trade and investment between the Parties and to promote the well-being of the peoples of the Parties. For this purpose, the Parties shall cooperate between the Governments of the Parties and, where necessary and appropriate, encourage and facilitate cooperation between the parties, one or both of whom are entities other than the Governments of the Parties, in the following fields:

(...) (f) information and communications **technology**; (...)”

65. Southern Common Market (MERCOSUR) - Israel RTA (in force since 23 Dec. 2009):

“CHAPTER VIII

TECHNICAL AND **TECHNOLOGICAL** COOPERATION

Article 2 - Technical Cooperation

1. The Parties shall establish a **technological** cooperation mechanism in order to develop their industrial sectors and infrastructure, in particular in the fields of agricultural and agroindustrial activities, banking, engineering and construction, chemistry, fine chemistry, fertilizers, pharmacy (especially active principles), automation and robotics, irrigation, alloys and super alloys, avionics, microelectronics, telecommunication, health, medical equipment, education, security equipment systems and other fields. The **technological** cooperation may be comprised of **technological** transfer and joint projects for the development of new **technologies** as well as other initiatives.”

66. ASEAN - India RTA (Goods: in force since 19 Aug. 2010; Services: in force since 20 Aug. 2015):

“ARTICLE 6

Areas of Economic Cooperation

Where appropriate, the Parties agree to strengthen their cooperation in the following areas, including, but not limited to:

(...) B. Sectors of Cooperation

i. agriculture, fisheries and forestry;

ii. services: media and entertainment, health, financial, tourism, construction, business process outsourcing, environmental;

iii. mining and energy: oil and natural gas, power generation and supply;

iv. science and **technology**: information and communications **technology**, electronic-commerce, bio**technology**;

v. transport and infrastructure: transport and communication;

vi. manufacturing: automotive, drugs and pharmaceuticals, textiles, petrochemicals, garments, food processing, leather goods, light engineering goods, gems and jewellery processing;

vii. human resource development: capacity building, education, **technology** transfer; and others: handicrafts, small and medium enterprises, competition policy, Mekong Basin Development, intellectual property rights, government procurement.”

67. ASEAN - Korea RTA – Framework Agreement (Goods: in force since 01 Jan. 2010; Services: in force since 01 May 2009):

“Article 3.1

Scope and Implementation of Cooperation

1. The Parties, on the basis of mutual benefits, shall explore and undertake cooperation projects in the following areas:

(...)

(f) science and **technology**;

(g) financial services;

(h) information and communication **technology**;

(i) agriculture, fisheries, livestock, plantation commodities and forestry;

(j) intellectual property;

(k) environmental industry;

(l) broadcasting;

(m) construction **technology**; (...)”

68. ASEAN – Australia – New Zealand RTA (in force since 01 Jan. 2010):

“CHAPTER 4 CUSTOMS PROCEDURES

(...) Article 5 Customs Co-operation

1. To the extent permitted by its domestic law, the customs administration of each Party may, as deemed appropriate, assist the customs administration of each other Party, in relation to:

(...) (e) advancing technical skills and the use of **technology**; and (...)”

69. Peru – China RTA (in force since 01 Mar. 2010):

“CHAPTER 12 COOPERATION

Article 152: Research, Science and **Technology** Cooperation

2. The Parties will encourage and facilitate, as appropriate, the following activities including, but not limited to:

(...) (f) promoting public/private sector partnerships in support of the development of **innovative** products and services and study joint efforts to enter into new markets.

Article 155: Small and Medium-Sized Enterprises

(...) 2. Cooperation shall include, among other subjects:

(...) (e) defining **technological** transference: programs oriented to transfer **technological innovation** to SME and to improve their productivity;

Article 157: Mining and Industrial Cooperation

3. The Parties will encourage and facilitate, as appropriate, the following activities including, but not limited to:

(...) (e) promotion of public/private sector partnerships and joint ventures in the support of the development of **innovative** products and services specially related to productivity in the sector activities;

(f) **technology** transfer in the areas mentioned in paragraph 2;

(g) designing of **innovation technology** models based in public/private cooperation and association ventures; and (...)

Article 164: Agricultural Cooperation

The aims of the cooperation on agriculture will be:

(...) (a) to promote sustainable rural development through the exchange of experience, generation of partnership and execution of projects in areas of mutual interest such as: agricultural **innovation** and **technology** transfer for the development of small

farming, the conservation and management of the water resource for agricultural use, the application of good agricultural and agro industrial practices, including gender approach in development policies and strategies, among others;
(...) (c) to develop a training program addressed to leader producers, technicians and professionals for the application of new **technologies** in order to increase and improve agriculture and animal husbandry productivity and competitiveness, in particular of value added products.

Article 162: Cooperation on Forestry Matters and Environmental Protection

1. The aims of cooperation on forestry matters and environmental protection will be, but not limited to, as follows:

(...) (f) developing new **technologies** for the transformation and processing of timber and non-timber species; and
(g) improving cooperation in agro-forestry **technologies**.”

70. EU – Serbia RTA (Goods: in force since 31 May 2010; Services: in force since 20 Dec. 2013):

“ TITLE VIII
COOPERATION POLICIES
(...) Article 89

Economic and trade policy

The Community and Serbia shall facilitate the process of economic reform by cooperating to improve understanding of the fundamentals of their respective economies and the formulation and implementation of economic policy in market economies.

To these ends, the Community and Serbia shall cooperate to:

(...) (c) promote wider cooperation with the aim to speed up the inflow of know-how and access to new **technologies**.

Article 112

Cooperation in research and **technological** development

The Parties shall encourage cooperation in civil scientific research and **technological** development (RTD) on the basis of mutual benefit and, taking into account the availability of resources, adequate access to their respective programmes, subject to appropriate levels of effective protection of intellectual, industrial and commercial property rights (IPR). Cooperation shall take due account of the priority areas related to the Community acquis in the field of research and technical development.”

71. Mexico – Bolivia RTA (in force since 07 Jun. 2010):

“Sección B - Medidas zoosanitarias y fitosanitarias

(...) Artículo 4-22: Cooperación técnica.

Cada Parte, a solicitud de la otra Parte:

- a) facilitará la prestación de asesoría técnica, información y asistencia, en términos y condiciones mutuamente acordados, para fortalecer sus medidas zoosanitarias y fitosanitarias, y las actividades relacionadas, incluidas la investigación, **tecnología** de proceso, infraestructura y el establecimiento de órganos reglamentarios nacionales. Esa asistencia podrá incluir créditos, donaciones y fondos para la adquisición de destreza técnica, capacitación y equipo que facilite el ajuste y cumplimiento de una medida zoosanitaria o fitosanitaria de la otra Parte;
- b) proporcionará información sobre sus programas de cooperación técnica relativos a medidas zoosanitarias o fitosanitarias en áreas de interés particular; y
- c) consultará con la otra Parte durante la elaboración de cualquier medida zoosanitaria o fitosanitaria, o antes de un cambio en su aplicación.”

72. New Zealand – Malaysia RTA (in force since 01 Aug. 2010):

“Article 13.2 Scope

1. The Parties affirm the importance of all forms of cooperation with particular attention given initially to the areas identified in Annex 8 (Areas of Cooperation). Annex 8 (Areas of Cooperation) is an open-ended, illustrative list of areas for cooperation. Other areas of cooperation for possible implementation can be identified and discussed by the Economic Cooperation Committee including, but not limited to: (...) (d) science and **technology**;

73. Türkiye – Chile RTA (in force since 01 Mar. 2011):

“TITLE IV COOPERATION

ARTICLE 37 Cooperation

(...)

8. The Parties recognize the importance of strengthening capacity to protect the environment and promote sustainable development in concert with strengthening trade and investment relations between them.

The Parties reaffirm their intention to continue to pursue environmental protection, and to fulfill their respective multilateral environment commitments.

The Parties endeavor to have their environment laws, regulations, policies and practices in harmony with their international environment commitments; agree that it is inappropriate to set or use their environmental laws, regulations, policies and practices for trade protectionist purposes; as well as it is inappropriate to relax, or fail to enforce or administer, their environment laws and regulations to encourage trade and investment.

The Parties agree to cooperate in the field of the environment. The aim of cooperation will be the prevention and/or reduction of contamination and degradation of natural resources and ecosystems, and rational use of the latter; through developing and endorsing special programs and projects dealing, inter alia, with the transfer of knowledge and **technology**. (...)

74. India – Malaysia RTA (in force since 01 Jul. 2011):

“CHAPTER 4 CUSTOMS COOPERATION

Article 4.6

Information and Communications **Technology**

The customs authorities of the Parties shall cooperate to promote the use of information and communications **technology** including sharing best practices, for the purpose of improving their customs procedures.”

75. Costa Rica – China RTA (in force since 01 Aug. 2011):

“Chapter 5

Customs Procedures

(...) Article 51: Cooperation

4. For purposes to facilitate the flow of trade between the Parties, the Parties shall endeavour to provide the other Party with technical advice and assistance for the purpose of improving risk assessment techniques, simplifying and expediting customs procedures, advancing the technical skills of personnel, and enhancing the use of **technologies** that can lead to improved compliance with the laws or regulations governing importations.

Chapter 11

Cooperation, Promotion and Enhancement of Trade Relations

Article 118: General Objective

(...) 2. Without prejudice to the possibility of extending the cooperation efforts to other areas, the Parties shall closely cooperate in areas aimed inter alia at:

(...) (c) increasing the level and depth of cooperative activities and good practices among the Parties in areas of mutual interest, with special attention to economic, trade, financial, **technological**, educational and cultural aspects;

(...) (e) stimulating productive synergies, creating new opportunities for trade and investment, and promoting competitiveness and **innovation**;

(f) accomplishing a greater impact in scientific and **technological** knowledge transfer, research and development, **innovation**, and entrepreneurship; (...)

Section C Temporary Entry of Business Persons

Article 106: Cooperation Taking into account the principles set out in Article 102 (General Principles), the Parties shall:

(a) exchange information and experiences on regulations and implementation of programs and **technology** in the framework of migratory issues, including those related to the use of biometric **technology**, advanced passenger information systems, frequent passenger programs and security of travel documents; (...)

Article 119: Small and Medium Enterprises

(...) 2. Cooperation shall include, among others, activities to:

(...) (e) promote research and development, transfer of **technology** and **innovation**;

Article 120: Promotion of **Innovation**, Science and **Technology**

1. The Parties recognize the importance of promoting and facilitating cooperation activities in **innovation**, science and **technology** aimed at achieving a greater social and economic development, including different stakeholders.

(...)

2. Cooperation shall include, among others, activities to:

(...) (b) promote the exchange of specialists, researchers and professors with the aim of disseminating technical and scientific know-how and offering services in certain fields of science, **technology** and **innovation**;

(c) implement joint or coordinated research and/or **technological** development activities;

(d) exchange information on scientific and **technological** research;

(...) (i) promote public/private sector partnerships in order to support the development of **innovative** products and services, the study of joint efforts to enter new markets, and the transfer of scientific and **technological** results into national productive systems;

(...) (k) promote mutual assistance and exchange information and experiences in the field of information and communication **technologies** (ICTs) where mutual and complementary interests exist.

Article 121: Export Promotion and Attraction of Investments

(...) 2. Cooperation shall include, among others, activities to:

(...) (i) promote the implementation of research and development and **technological** and **innovation** programs, with the objective of increasing the export supply and encouraging investment;

(...)

Article 123: Agricultural Cooperation

2. In order to accomplish these objectives, and in accordance with their domestic laws, regulations and relevant procedures, the Parties shall cooperate, among others, in activities to:

(a) strengthen institutional capabilities of government agencies, research institutions, universities and businesses, in the areas of scientific investigation and transfer and validation of **technologies** including, among others, soil management and nutrition, irrigation and drainage, animal nutrition, horticulture under protected environments, traceability and safety, and bio fuels;

(b) manage joint research projects in areas of mutual and complementary interests, as well as academic and business networks in the areas of agriculture and livestock;

(c) develop and validate **technologies** for agriculture and livestock production of higher quality and lower environmental impact;

(...) (e) transfer knowledge, **technology**, technical assistance and information services for sustainable land management and risk management for hydro meteorological phenomena;

(...) (h) encourage capacity building, **technology** transfer, and research and development of agricultural and livestock bio**technology** and bio-safety;

(...) (k) strengthen seed **technology** capabilities;
(...) (o) promote the management and use of communication and information **technologies** for the modernization of agricultural and livestock public and private organizations; and (...)

Article 128: Mechanisms of Cooperation

(...) 5. In order to implement cooperation activities, and in accordance with each Party's capabilities, the Committee may suggest to conduct cooperation through the following means:

(...) (e) promotion of associations and companies of public and/or private sectors, for supporting the development of **innovative** products and services;
(f) **technology** transfer in the areas of mutual interest;
(g) design of models of **technologic innovation** based on public and/or private cooperation; and”

76. India – Japan RTA (in force since 01 Aug. 2011):

“Article 129

Fields of Cooperation

The fields of cooperation under this Chapter shall include:

(...) (d) information and communications **technology**;
(e) science and **technology**.”

77. Canada – Colombia RTA (in force since 15 Aug. 2011):

“Chapter Eighteen - Trade-Related Cooperation

Article 1801: Objectives

Recognizing that trade-related cooperation is a catalyst for the reforms and investments necessary to foster trade-driven economic growth and adjustment to liberalized trade, the Parties agree to promote trade-related cooperation pursuant to the following objectives:

(...) (c) to foster new opportunities for trade and investment, stimulating competitiveness and encouraging **innovation**, including dialogue and cooperation among their respective academies of science, governmental organizations, non-governmental organizations, universities, colleges, as well as their science, research and **technological** centers and institutes, and private sector enterprises and firms in areas of mutual interest relating to science and **technology** and **innovation**; and (...)

Chapter Fifteen - Electronic Commerce

(...) Article 1507: Cooperation

(...) 2. Parties may work together through various means, including through information and communication **technologies**, face to face meetings or a working group of experts to further the objectives of this Chapter, in particular Articles 1504, 1506 and 1507.”

78. Chile – Malaysia RTA (in force since 25 Feb. 2012):

“CHAPTER 9 - COOPERATION

Article 9.3: Scope

(...) 2. Areas of cooperation may include:

(...) (b) research, development and **innovation**;
(c) science and **technology**; (...)
(i) intellectual property; (...)

Article 9.4: Research, Development and **Innovation**

Cooperation in **innovation**, research and development will be focused on cooperative activities in sectors where mutual and complementary interests exist. Where appropriate, they will also promote partnerships in the support of the development of **innovative** products and services and activities to promote linkage, **innovation** and **technology** exchange.”

79. Japan – Peru RTA (in force since 01 Mar. 2012):

“Chapter 9 Entry and Temporary Stay of Nationals for Business Purposes

Article 139 – Cooperation

Taking into account the principles set out in Article

133, the Parties will:

(a) exchange views regarding visa policy for the nationals for business purposes referred to in Annex 8;

(b) exchange views on the implementation of programs and **technology** in the framework affecting the entry and temporary stay of nationals for business purposes under this Chapter, including those related to the use of biometric **technology** and advanced passenger information systems; and

(c) endeavor to coordinate actively in multilateral fora, in order to promote the facilitation of the entry and temporary stay of nationals for business purposes under this Chapter.”

80. Korea – United States RTA (in force since 15 Mar. 2012):

“CHAPTER TWENTY ENVIRONMENT

(...) ARTICLE 20.8: ENVIRONMENTAL COOPERATION

(...) 2. The Parties are committed to expanding their cooperative relationship in bilateral, regional, and multilateral fora on environmental matters, recognizing that such cooperation will help them achieve their shared environmental goals and objectives, including the development and improvement of environmental protection, practices, and **technologies**.”

81. Peru – Panama RTA (in force since 01 May 2012):

“Capítulo 9 Propiedad Intelectual

(...) Artículo 9.9: Cooperación y Ciencia y **Tecnología**

1. Las Partes intercambiarán información y material en proyectos de educación y disseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

(...) (c) promover el diálogo y la cooperación con relación a la ciencia, la **tecnología**, el emprendimiento y la **innovación**; y

(d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo tecnológico, el emprendimiento y la **innovación**, así como la importancia de disseminar la información **tecnológica** y de crear y fortalecer sus capacidades **tecnológicas**; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la **innovación**, el emprendimiento, la transferencia y la difusión de **tecnología** entre las Partes, dirigidos, entre otros, a empresas, universidades, centros de investigación y centros **tecnológicos**.

4. Las actividades de cooperación en ciencia y **tecnología** podrán adoptar, entre otras, las siguientes formas:

(a) participación en proyectos conjuntos de educación, investigación, desarrollo **tecnológico** e **innovación**; (...)

7. Las Partes podrán realizar las actividades de cooperación respecto de:

(...) (g) promover la asistencia técnica y capacitación para la implementación de la **innovación** y transferencia **tecnológica** en artesanías.

El plan de cooperación específico se elaborará de manera conjunta entre:

- (a) la Dirección General de Artesanías Nacionales del Ministerio de Comercio e Industrias, por parte de Panamá; y
- (b) la Dirección Nacional de Artesanías del Ministerio de Comercio Exterior y de Turismo, por parte del Perú.

Dichas entidades definirán las actividades del plan de cooperación, el financiamiento y su implementación.

8. Cada Parte designa como entidades de contacto responsables del cumplimiento de los objetivos de este Artículo, y de facilitar el desarrollo de los proyectos de colaboración y cooperación en investigación, **innovación** y desarrollo **tecnológico**, a las siguientes:

- (a) en el caso de Panamá, la Secretaría Nacional de Ciencia, **Tecnología** e **Innovación** (SENACYT) y la Autoridad Nacional para la **Innovación** Gubernamental (AIG); y
- (b) en el caso del Perú, el Consejo Nacional de Ciencia, **Tecnología** e **Innovación Tecnológica** (CONCYTEC), (...)

Capítulo 5

Cooperación y Asistencia Administrativa Mutua en Asuntos Aduaneros

(...) Artículo 5.5: Cooperación y Asistencia Técnica

Cuando no contravenga su legislación, disposiciones y prácticas nacionales, las autoridades competentes deberán cooperar en asuntos aduaneros, incluyendo:

- (...) (d) el intercambio de información acerca de nuevas **tecnologías**, métodos y procedimientos en la aplicación de la legislación aduanera; y (...)

Capítulo 17

Entrada Temporal de Personas de Negocios

(...) Artículo 17.6: Cooperación

Tomando en consideración los principios establecidos en el Artículo 17.1, las Partes procurarán en la medida de lo posible:

- (b) intercambiar información y experiencias sobre regulaciones e implementación de programas y **tecnología** en el marco de asuntos migratorios, incluyendo aquellos relacionados con el uso de **tecnología** biométrica, sistemas de información adelantada de pasajeros, programas de pasajero frecuente y seguridad en los documentos de viaje; y (...).”

82. EU - Eastern and Southern Africa States²⁴⁹ RTA (in force since 14 May 2012):

“CHAPTER III

FISHERIES

(...) TITLE III Inland fisheries and aquaculture development

(...) Article 35 Areas of cooperation

1. The areas of cooperation shall include EC Party contributions to the following:

(...) (c) **Technology**

(i) contributing to the development of technical capabilities, including value adding **technology** promotion, for example, through fisheries **technology** transfer from the EC Party to the ESA countries;

(ii) enhancing fisheries management capacity in the region, for example through research and data collection systems and contribution towards appropriate **technologies** on harvesting and post harvest management.

CHAPTER IV

ECONOMIC AND DEVELOPMENT COOPERATION

TITLE I

General provisions

(...) Article 38

Scope

2. The areas that will be addressed by the cooperation are:

(...) (f) research and development, **innovation** and **technology** transfer;

²⁴⁹ According to the WTO RTAs Database, the Eastern and Southern Africa States abovementioned are: Mauritius; Seychelles; Zimbabwe.

(...) 3. The cooperation shall, in particular, cover the following sectors:
(...) (b) Infrastructure Development, namely in the Transport, Energy, Information and Communications **Technology** (ICT) sectors.

TITLE II Private sector development

(...) Article 40 Investment

1. The Parties recognise the importance of investment. The objectives in this area are to:

(a) create an environment for sustainable and equitable economic development of ESA through investment, including foreign direct investment (green field or portfolio), **technology** transfer, capacity building and institutional support from the EC Party;

(...)

Areas of cooperation

2. Subject to the provisions of Article 36 the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (c) encourage the EU-ESA private sector partnership and joint ventures to promote investment, venture capital financing for greenfield investment and **technology** transfer; (...)

Article 41 Industrial development and competitiveness

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (b) transfer of **technology**, knowledge and research and development; (...)

Article 42

Micro, small and medium-sized enterprises

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (b) **technology** development and transfer, **innovation**, information exchange and networks and marketing;

Article 43

Mining and minerals

1. The Parties recognise the importance of cooperation in the development and management of the mining and minerals sector. The objectives in this area are to:

(...) (b) promote value addition and environmentally friendly **technologies** in the mining productive processes; and (...)

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (e) transfer of **technology**, knowledge, **innovation** and Research and Development; and

TITLE III Infrastructure

Article 45 Scope and objectives

(...) 3. The scope of cooperation in infrastructure will cover the development of physical infrastructure, namely transport, energy, information and communication **technology**.

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (d) **technology** development and transfer, **innovation**, information exchange and networks, and marketing;

TITLE III

Infrastructure

(...) Article 46

Transport

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (d) **technology** development and transfer, **innovation**, information exchange and networks, and marketing;

Article 47

Energy

(...) Areas of cooperation

(...) (h) **technology** development and transfer, research and development (R&D), **innovation**, information exchange, development of databases and networks;

Article 48

Information and Communications **Technology** (ICT)

1. The Parties recognise the importance of cooperation in the development of ICT as a key sector in the modern society to foster competitiveness and **innovation**, as well as for the smooth transition towards the information society. The objective in this area is to develop the ICT sector and promote its contribution to other socio-economic sectors.

Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (b) disseminate new information and communication **technologies**;

(...) (d) **technology** development, transfer and applications, R&D, **innovation**, information exchange and networks, and marketing; (...)

TITLE IV

Natural resources and environment

(...) Article 50

Water resources

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (f) **technology** development, transfer and applications, R&D, **innovation**, information exchange and networks;

Article 51

Environment

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (h) **technology** development and adaptation, transfer and applications, R&D and **innovation**;

83. United States – Colombia RTA (in force since 15 May 2012):

“Chapter Sixteen Intellectual Property Rights

Article 16.12: Promotion of **Innovation** and **Technological** Development

1. The Parties recognize the importance of promoting **technological innovation**, disseminating **technological** information, and building **technological** capacity, including, as appropriate, through collaborative scientific research projects between or among the Parties. Accordingly, the Parties will seek and encourage opportunities for science and **technology** cooperation and identify areas for such cooperation and, as appropriate, engage in collaborative scientific research projects.

2. The Parties shall give priority to collaborations that advance common goals in science, **technology**, and **innovation** and support partnerships between public and private research institutions and industry. Any such collaborative activities or transfer of **technology** shall be based on mutually agreed terms.”

84. El Salvador – Cuba RTA (in force since 01 Aug. 2012):

“Capítulo VII Cooperación Comercial
Artículo 22.

Las Partes reconocen la importancia de la cooperación en ciencia y **tecnología**, **innovación** y transferencia de conocimiento para lograr un mayor desarrollo social y económico. En ese sentido, promoverán la formación de especialistas, el intercambio de información y experiencias sobre investigación científica, la asistencia mutua para el desarrollo tecnológico y la productividad, entre otros; fomentando a su vez, la creación de alianzas estratégicas entre entidades publicas y privadas para la ejecución de estas u otras actividades en aquellos sectores de la economía que las Partes designen de interés.”

85. Mexico – Central America RTA (in force since 01 Sep. 2012):

“Capítulo 6 - Facilitación de Comercio
Artículo 6.6: Cooperación (...)

8. Con el fin de facilitar el comercio entre las Partes, cada Parte se esforzará por proporcionar a la otra Parte asesoría y asistencia técnica con el propósito de mejorar las técnicas de evaluación y administración de riesgos, simplificando y haciendo más expeditos los procedimientos aduaneros para el despacho oportuno y eficiente de las mercancías; mejorar las habilidades técnicas del personal, e incrementar el uso de **tecnologías** que puedan conducir al mejor cumplimiento de la legislación o regulaciones en materia de importaciones de una Parte.

Artículo 16.6: Cooperación Técnica y Transferencia de **Tecnología**

1. Las Partes reconocen la importancia de la cooperación técnica que facilite la aplicación de las disposiciones de este Capítulo y asegure una protección eficaz y adecuada de los derechos de propiedad intelectual, para lo cual las Partes cooperarán sobre bases de equidad y beneficio recíproco, en los términos y condiciones que sus autoridades competentes acuerden mutuamente. Esta cooperación podrá incluir lo siguiente: (...)

Capítulo 12 - Comercio Transfronterizo de Servicios
Artículo 12.13: Cooperación Técnica

Las Partes establecerán, a más tardar un año después de la entrada en vigor de este Tratado, un sistema para facilitar a los prestadores de servicios información referente a sus mercados en relación con:

- (a) los aspectos comerciales y técnicos del suministro de servicios;
- (b) la posibilidad de obtener **tecnología** en materia de servicios; y
- (c) todos aquellos aspectos que la Comisión Administradora acuerde en materia de servicios.”

86. Malaysia – Australia RTA (in force since 01 Jan. 2013):

“CHAPTER 16
ECONOMIC AND TECHNICAL COOPERATION
Article 16.2 Scope

1. The Parties affirm the importance of all areas of cooperation between the Parties with particular attention given to the following areas:

- (a) automotive;
- (b) agriculture;
- (c) tourism;
- (d) clean coal **technology**; and
- (e) electronic commerce.

(...) 3. The Parties may include the following other areas of cooperation:

- (...) (h) information and communications **technology**;

(i) science and **technology**; (...)

CHAPTER 4
CUSTOMS PROCEDURES AND COOPERATION
Article 4.4

Cooperation

(...) 3. This could include cooperation in relation to the following:

- (a) implementation and operation relating to the importation or exportation of goods;
- (b) the use of information and communications **technology**, including possible electronic data interchange between the Parties; (...)"

87. EU – Colombia, Ecuador and Peru RTA (in force since 01 Mar. 2013):

“TITLE XIII
TECHNICAL ASSISTANCE AND TRADE-CAPACITY BUILDING
Article 324

(...) 2. To achieve the objectives referred to in paragraph 1, the Parties agree to attach particular importance to cooperation initiatives aimed at:

- (a) improving and creating new trade and investment opportunities, fostering competitiveness and **innovation**, as well as the modernisation of production, trade facilitation and the transfer of **technology**; (...)

(...) Article 75

Cooperation and Trade Facilitation

(...)

(b) identifying, developing and promoting initiatives that facilitate trade taking their respective experience into consideration. These initiatives may include, among others:

- (i) the exchange of information, experience and data, scientific and **technological** cooperation and the use of good regulatory practices; (...)"

88. Canada – Panama RTA (in force since 01 Apr. 2013):

“Chapter nineteen: Trade-related cooperation

Article 19.01: Objectives

Recognizing that trade-related cooperation is a catalyst for the reforms and investments necessary to foster trade-driven economic growth and adjustment to liberalized trade, the Parties agree to promote trade-related cooperation, with the following objectives:

- a. strengthening the capacities of the Parties to maximize the opportunities and benefits deriving from this Agreement;
- b. strengthening and developing cooperation at a bilateral, regional or multilateral level;
- c. fostering, in areas of mutual interest relating to science and **technology** and **innovation**, new trade and investment opportunities, thereby stimulating competitiveness and encouraging **innovation**, including dialogue and cooperation among their respective: academies of science; governmental organizations; non-governmental organizations; universities; colleges; centers and institutes for science, research and **technology**; and private sector enterprises or firms; and
- d. promoting sustainable economic development, with an emphasis on small and medium-sized enterprises.

Annex IV: International Maritime Sector

(...) 4. Cooperation

Recognizing a shared commitment to safeguarding and promoting open and fair competition in the international maritime transport sector, as well as to good governance in matters relating to marine safety, the Parties shall endeavour to:

- (...) c. facilitate the exchange of information and **technology** in the following areas: electronic navigation systems, simulation **technology**, maritime services

optimization, marine pollution, port management, engineering, machinery, ship repair and naval architecture;”

89. Costa Rica – Peru RTA (in force since 01 Jun. 2013):

“Capítulo 9 Propiedad Intelectual

(...) Artículo 9.8: Cooperación y Ciencia y Tecnología

1. Las Partes intercambiarán información y material en proyectos de educación y diseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

(a) mejorar y fortalecer los sistemas administrativos de la propiedad intelectual para promover el registro eficiente de los derechos de propiedad intelectual;

(b) estimular la creación y desarrollo de la propiedad intelectual dentro del territorio de las Partes, particularmente de los pequeños inventores y creadores, así como de las micro, pequeñas y medianas empresas;

(c) promover el diálogo y la cooperación con relación a la ciencia, la **tecnología**, el emprendimiento y la **innovación**; y

(d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo **tecnológico**, el emprendimiento y la **innovación**, así como la importancia de diseminar la información **tecnológica** y de crear y fortalecer sus capacidades **tecnológicas**; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la **innovación**, el emprendimiento, la transferencia y la difusión de **tecnología** entre las Partes, dirigidos, entre otros, a empresas, universidades, centros de investigación y centros **tecnológicos**.

4. Las actividades de cooperación en ciencia y **tecnología** podrán adoptar, entre otras, las siguientes formas:

(a) participación en proyectos conjuntos de educación, investigación, desarrollo **tecnológico** e **innovación**; (...)

6. Cada Parte designa como entidades de contacto responsables del cumplimiento de los objetivos de este Artículo, y de facilitar el desarrollo de los proyectos de colaboración y cooperación en investigación, **innovación** y desarrollo **tecnológico**, a las siguientes:

(a) Costa Rica: el Ministerio de Comercio Exterior, en coordinación con el Ministerio de Justicia y Paz y el Ministerio de Ciencia y **Tecnología**; y

(b) el Perú: el Consejo Nacional de Ciencia, **Tecnología** e **Innovación Tecnológica** (CONCYTEC), o sus sucesores.

Capítulo 5

Cooperación y Asistencia Mutua en Asuntos Aduaneros

(...) Artículo 5.5: Cooperación y Asistencia Técnica

Cuando no contravenga su legislación, disposiciones y prácticas nacionales, las autoridades competentes deberán cooperar en asuntos aduaneros, incluyendo:

(...) (d) el intercambio de información acerca de nuevas **tecnologías**, métodos y procedimientos en la aplicación de la legislación aduanera; o

Capítulo 14

Entrada Temporal de Personas de Negocios

(...) Artículo 14.6: Cooperación

Tomando en consideración los principios establecidos en el Artículo 14.1, las Partes procurarán en la medida de lo posible:

(b) intercambiar información y experiencias sobre regulaciones e implementación de programas y **tecnología** en el marco de asuntos migratorios, incluyendo aquellos relacionados con el uso de **tecnología** biométrica, sistemas de información adelantada de pasajeros, programas de pasajero frecuente y seguridad en los documentos de viaje; y (...)”

90. Costa Rica – Singapore RTA (01 Jul. 2013):

“Article 13.6: Cooperation

1. In relation to intellectual property, the Parties agree that they may cooperate on the following areas:

- (a) intellectual property management, licensing, registration, and exploitation, through the exchange of information and sharing of experiences;
- (b) **technological** and market intelligence through exchange of experience and information, as mutually agreed by the Parties; (...)

Chapter 14

Cooperation, Promotion and Enhancement of Trade Relations

Section A: General Provisions

(...) Article 14.2: Specific Objectives

In this Chapter, priority shall be given to the following objectives: (...)

(...) (c) increasing the level and depth of cooperative activities among the Parties in areas of mutual interest, with special attention to economic, trade, financial, **technological**, educational and cultural aspects;

(...)

(e) stimulating productive synergies, creating new opportunities for trade and investment, and promoting competitiveness and **innovation**;

(f) accomplishing a greater impact in scientific, **technological** and knowledge transfer, research and development, **innovation**, and entrepreneurship;

Section B: Cooperation Areas

(...) Article 14.4: Promotion of Science and **Technology**, **Innovation**, **Technology** and Knowledge Transfer, and Entrepreneurship

1. The Parties recognize the importance of the promotion and the facilitation of cooperation activities in science and **technology**, **innovation**, **technology** and knowledge transfer, and entrepreneurship, aiming to achieve a greater social and economic development. The Parties shall also consider the access to and transfer of knowledge and **technology** between them at national (including different stakeholders such as universities, private sector, and government) and international levels.

(...) 2. The Parties shall encourage and facilitate, as appropriate, the following activities, among others:

(...) (d) joint or coordinated implementation of research and/or **technological** development programs and projects that link centers for research industry;

(e) information exchange on scientific and **technological** research;

(...) (j) promoting public/private sector partnerships in support of the development of **innovative** products, processes and services. (...)

Article 14.5: Export Promotion and Attraction of Investments

(...) 2. Cooperation shall include, among others, activities to:

(...) (g) promote the implementation of research and development, **technological** and **innovation** programs with the objective of increasing the export supply and encouraging investment;

Article 14.8: Environmental Cooperation

(...) 2. The Parties recognize the importance of strengthening capacities to protect the environment and to promote sustainable development, in accordance with their efforts of strengthening their trade and investment relations. Accordingly, the Parties agree to cooperate on environmental matters of mutual interest and benefit, taking into account their national priorities and available resources. Cooperative activities may be in areas including, but not limited to, the promotion of:

(a) green markets and clean **technologies**; and

(b) sustainable environmental management.

Article 14.10: Other Cooperation Areas

Additionally, the Parties shall engage in the promotion of the following cooperation areas:

- (a) Health: Cooperation in the health area shall include, among others, activities to:
 - (...) iv. promote the use, application and training of new health **technologies**; and
 - v. encourage the development of research centers focused in the production of high-quality **technologies**.”

91. EU – Central America²⁵⁰ RTA (in force since 01 Aug. 2013):

“PART II
POLITICAL DIALOGUE

(...) Article 28

Statistics Cooperation

(...) 2. Cooperation in this field shall also aim at:

- (a) the development of a regional statistical system in support of the priorities for regional integration agreed between the Parties;
- (b) cooperating in the field of statistics on science, **technology** and **innovation**.

TITLE V

ENVIRONMENT, NATURAL DISASTERS AND CLIMATE CHANGE

Article 50

Cooperation on Environment

(...) 4. Cooperation may involve measures such as:

- (b) transfer and use of sustainable **technology** and know-how, including creation of incentives and mechanisms for **innovation** and environmental protection;

Article 55

Cooperation and Technical Assistance on Intellectual Property and **Technology** Transfer

(...) 3. The Parties also recognise the importance of technical cooperation assistance in the field of **technology** transfer in order to enhance intellectual property and agree to cooperate among others in the following activities:

- (a) the Parties shall promote the transfer of **technology**, which shall be accomplished through academic, professional and/or business exchange programs directed to the transmission of knowledge from the EU Party to the Republics of the CA Party;
- (b) the Parties recognise the importance of creating mechanisms that strengthen and promote Foreign Direct Investment (FDI) in the Republics of the CA Party, especially in **innovative** and high-tech sectors. The EU Party shall make its best efforts to offer to the institutions and enterprises in its territories incentives destined to promote and to favour the transfer of **technology** to institutions and enterprises of the Republics of the CA Party, in such a way that allows these countries to establish a viable **technological** platform;
- (c) likewise, the EU Party shall facilitate and promote programs aimed to the creation of activities of Research and Development in Central America, to attend the region's needs, such as access to medicines, infrastructure and **technology** development necessary for the development of their people, among others.

Article 58

Cooperation and Technical Assistance on Government Procurement

The Parties recognise the importance of cooperation and technical assistance in the field of government procurement and agree to cooperate as follows:

- (...) (b) upon request of a Party, provide capacity building and training, including training for the private sector on **innovative** means of competitive government procurement;
- (...) (e) improvement of **technological** capabilities for public entities either in the Central, Sub-central or other procuring entities;

²⁵⁰ According to the WTO RTAs Database, the signatories parties from Central America are: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

Article 65

Energy (Including Renewable Energy)

1. The Parties agree that their joint objective shall be to foster cooperation in the field of energy, in particular sustainable clean and renewable energy sources, energy efficiency, energy saving **technology**, rural electrification and regional integration of energy markets, among others as identified by the Parties, and in compliance with domestic legislation.

2. Cooperation may include, among others, the following:

(a) formulation and planning of energy policy, including interconnected infrastructures of regional importance, improvement and diversification of energy supply and improvement of energy markets, including facilitation of transit, transmission and distribution within the Republics of the CA Party;

(b) management and training for the energy sector and transfer of **technology** and know-how, including ongoing work on standards relating to energy generating emissions and energy efficiency;

Article 66

Cooperation on Mining

The Parties agree to cooperate in the field of mining taking into account their respective legislations and internal procedures as well as aspects of sustainable development and including environmental protection and conservation, through initiatives such as promoting exchange of information, experts, experience, development and transfer of **technology**.

Article 67

Fair and Sustainable Tourism

(...) 2. For this purpose they agree to promote fair and sustainable tourism, in particular to support:

(...) (h) the promotion of information **technology** in the area of tourism.

Article 68

Transport Cooperation

(...) 2. Cooperation may include the following:

(...) (c) projects for the transfer of European **technology** in the Global Navigation Satellite System and urban public transport centres;

Article 70

Micro, Small and Medium Enterprises

The Parties agree to promote the competitiveness and insertion of rural and urban MSMEs and their representative organisations, in the international markets, acknowledging their contribution to social cohesion through poverty reduction and job creation, through the provision of non-financial services, training and technical assistance, by executing the following cooperation actions, among others:

(...) (h) promotion of transfer of both **technology** and knowledge;

(i) support to **innovation**, as well as research and development;

TITLE IX

KNOWLEDGE SOCIETY

Article 75

Information Society

1. The Parties agree that information and communication **technologies** are key sectors in a modern society and are of vital importance to economic and social development and the smooth transition to the information society. Cooperation in this field shall help to establish a sound regulatory and **technological** framework, foster the development of these **technologies**, and develop policies that will help to reduce the digital divide and to develop human capacities, provide equitable and inclusive access to information **technologies**, and maximize the use of these **technologies** to provide services. In this regard, cooperation shall also support the implementation of these policies and help to improve interoperability of electronic communication services.

2. Cooperation in this area shall aim to promote:

(a) dialogue and exchange of experiences on regulatory and policy issues related to the information society, including the use of information and communication **technologies** such as e-government, e-learning and e-health, and policies aimed at narrowing the digital divide;

(...) (e) joint research and development projects on information and communication **technologies**; (...)

(...) Article 76

Scientific and **Technological** Cooperation

1. Cooperation in this field shall aim to develop scientific, **technological**, and **innovation** capacities covering all the activities under the research framework programmes (FPs). To this end, the Parties shall foster policy dialogue at regional level, exchange of information and the participation of their research and **technological** development bodies in the following scientific and **technological** cooperation activities, in compliance with their internal rules:

(a) joint research and development projects on information and communication **technologies**;

(...) (e) promotion of advanced science and **technology** studies which contribute to the long term sustainable development of the Parties;

(f) development of links between the public and private sectors; special emphasis shall be placed on transfer of scientific and **technological** results into national productive systems and social policies, and environmental aspects and the need to use cleaner **technologies** shall be taken into account;

(...) (h) promotion, dissemination and transfer of **technology**;

(i) assistance to establish National **Innovation** Systems (NIS), to develop **technology** and **innovation**, in order to facilitate appropriate responses for demand driven by small and medium size business and to promote local production, among others; furthermore, assistance to develop excellence centres and high-tech clusters;

(j) promotion of training, research, development and applications of nuclear science and **technology** for medical applications enabling the transfer of **technology** to the Republics of the CA Party in areas such as health, particularly radiology and nuclear medicine for radiodiagnosis and radiotherapy treatment, and those areas that the Parties mutually agree to establish, in conformity with existing international conventions and regulations and submitting to the jurisdiction of the International Atomic Energy Agency.

2. Special emphasis shall be put on human potential building as a long-lasting basis of scientific and **technological** excellence, and on the creation of sustainable links between the scientific and technological communities of the Parties, at both national and regional levels. To this end, exchanges of researchers and best practices in research projects shall be promoted.

(...) 5. The Parties shall promote the participation of their respective entities in each other's scientific and **technological** programmes in pursuit of mutually beneficial scientific excellence and in accordance with their respective provisions governing the participation of legal entities from third countries.”

92. Iceland – China RTA (in force since 01 Jul. 2014):

“CHAPTER 9 CO-OPERATION

(...) Article 95

Research, Science and **Technology**

1. Building on their existing agreements on co-operation on research, science and **technology**, the Parties shall, where appropriate, encourage government agencies, research institutions, universities, private companies and other research organisations in their countries to conclude direct arrangements in support of co-operative activities, programmes or projects within the framework of this Agreement, especially related to trade and commerce.

2. Co-operation in research, science and **technology** shall in particular focus on the following areas:

- (a) seismology, volcanology, geophysics, earthquake engineering and countermeasure for seismic hazard reduction;
- (b) marine and polar science as set out in the Memorandum of Understanding on cooperation between the Parties in the field of Marine and Polar Science and **Technology**, signed on 20 April 2012;”

93. Switzerland – China RTA (in force since 01 Jul. 2014):

“ARTICLE 12.5

Bilateral Cooperation

(...) 3. Environmental cooperation between the Parties shall also focus on exchange of information and expertise, capacity building and training, seminars and workshops, internships and scholarships, as well as monitoring international developments in this area, etc. Such activities should also address the issue of **technology** cooperation and transfer, especially regarding environmentally friendly **technologies**.”

94. EFTA – Central America (Costa Rica and Panama) RTA (in force since 19 Aug. 2014):

“CHAPTER 10

COOPERATION

ARTICLE 10.1

Objectives and Scope

1. The Parties declare their readiness to foster trade, economic cooperation and **technology** transfer in order to facilitate the implementation of the overall objectives of this Agreement, in particular to enhance trading and investment opportunities arising from this Agreement and contribute to sustainable development.

(...)

ARTICLE 10.2

Methods and Means

(...) 3. Sustainable development shall be integrated and reflected in the implementation of cooperation, assistance and **technology** transfer in the various sectors to which it is relevant.

4. Means of cooperation and assistance may include:

- (a) exchange of information, **technology** transfer and training;
- (b) implementation of joint actions such as seminars and workshops; and
- (c) technical and administrative assistance.

ARTICLE 10.3

Fields of Cooperation

Cooperation, assistance and **technology** transfer may cover any fields jointly identified by the Parties that may serve to enhance the Parties’ and their economic operators’ capacities to benefit from increased international trade and investment, including in particular: (...)”

95. EU – Ukraine RTA (in force since 23 Aug. 2014):

“CHAPTER 10

Industrial and enterprise policy

(...) Article 379

In order to achieve the objectives set out in Article 378 of this Agreement, the Parties shall cooperate in order to:

(...) (d) encourage the development of **innovation** policy, via the exchange of information and good practice regarding the commercialisation of research and development (including support instruments for **technology**-based business start-ups), cluster development and access to finance;

Article 401

(...) CHAPTER 16

Tourism

(...) Cooperation shall focus on the following aspects:

(a) exchange of information, best practices, experience and "know-how" transfer, including on **innovative technologies**;

Section 2

Maritime policy

(...) Article 412

This cooperation shall include:

(a) exchange of information, best practices, experience and maritime "know-how" transfer, including on **innovative technologies** in maritime sectors; (...)

Article 401

(...) CHAPTER 16

Tourism

(...) Cooperation shall focus on the following aspects:

(a) exchange of information, best practices, experience and "know-how" transfer, including on **innovative technologies**;

Article 10

Conflict prevention, crisis management and military-**technological** cooperation

1. The Parties shall enhance practical cooperation in conflict prevention and crisis management, in particular with a view to increasing the participation of Ukraine in EU-led civilian and military crisis management operations as well as relevant exercises and training activities, including those carried out in the framework of the Common Security and Defence Policy (CSDP).

2. Cooperation in this field shall be based on modalities and arrangements between the EU and Ukraine on consultation and cooperation on crisis management.

3. The Parties shall explore the potential of military-**technological** cooperation. Ukraine and the European Defence Agency (EDA) shall establish close contacts to discuss military capability improvement, including **technological** issues.

TITLE V

ECONOMIC AND SECTOR COOPERATION

CHAPTER 1

Energy cooperation, including nuclear issues

(...) Article 338

Mutual cooperation shall cover, among others, the following areas:

(...) (l) scientific and technical cooperation and exchange of information for the development and improvement of technologies in energy production, transportation, supply and end use, paying particular attention to energy-efficient and environmentally friendly **technologies**, including carbon capture and storage and efficient and clean coal **technologies**, in accordance with established principles as set out, inter alia, in the Agreement on Cooperation in Science and **Technology** between the European Community and Ukraine; (...)

CHAPTER 6

Environment

Article 360

The Parties shall develop and strengthen their cooperation on environmental issues, thereby contributing to the long-term objective of sustainable development and green economy. It is expected that enhanced environmental protection will bring benefits to citizens and businesses in Ukraine and in the EU, including through improved public health, preserved natural resources, increased economic and environmental efficiency, integration of environment into other policy areas, and higher production as a result of modern **technologies**. Cooperation shall be conducted in the best interests of the Parties on the basis of equality and mutual benefit while also taking into account interdependence existing between the Parties in the field of environmental protection and related multilateral agreements.

Article 362

(...) 1. The Parties shall, inter alia:

(a) exchange information and expertise;

(b) implement joint research activities and exchange of information on cleaner **technologies**; (...)

Article 365

The cooperation shall cover, inter alia, the following objectives:

(...) (b) development of sector strategies on air quality; water quality and resource management, including marine environment; waste and resource management; nature protection; industrial pollution and industrial hazards and chemicals, including clearly defined timetables and milestones for implementation, administrative responsibilities as well as financing strategies for investments in infrastructure and **technology**; (...)

CHAPTER 8

Space

Article 371

1. The Parties shall promote mutually beneficial cooperation on civil space research and space applications, in particular in the following areas:

(...) (d) applied space **technologies**, including launcher and propulsion **technology**.

2. The Parties will encourage and promote the exchange of experience on space policy, administration and legal aspects, as well as on industrial restructuring and the commercialisation of space **technologies**.

Article 372

(...) 3. Cooperation could also cover the exchange of experience on the management of space research and science institutions, as well as the development of an environment conducive to research and the application of new **technologies** and adequate protection of the relevant intellectual, industrial and commercial property rights.

CHAPTER 9

Cooperation in science and **technology**

Article 374

The Parties shall develop and strengthen their scientific and **technological** cooperation in order to contribute both to scientific development itself, and to reinforce their scientific potential for contributing to the resolution of national and global challenges. The Parties shall endeavour to contribute to progress in acquiring scientific and **technological** knowledge relevant to sustainable economic development, by strengthening their research capacities and human potential. The sharing and pooling of scientific knowledge will contribute to the competitiveness of the Parties, by increasing the ability of their economies to generate and use knowledge to commercialise new products and services. Finally, the Parties will develop their scientific potential in order to fulfil their global responsibilities and commitments in areas such as health-related issues, environmental protection including climate change and other global challenges.

Article 375

(...) 3. Such cooperation shall assist Ukraine in reforming and reorganizing its science management system and research institutions (including boosting its capacity for research and **technological** development), in order to support the development of a competitive economy and knowledge society. (...)

Article 376

Cooperation shall take place particularly through:

(a) exchange of information on each other's science and **technology** policies; (...)

(d) joint research and development activities aimed at encouraging scientific progress and the transfer of **technology** and know-how;

(...) (f) the organisation of joint scientific and **technological** development events/measures;

(g) implementation measures aimed at the development of an environment conducive to research and the application of new **technologies** and adequate protection of the intellectual property results of research; (...)

Article 379

In order to achieve the objectives set out in Article 378 of this Agreement, the Parties shall cooperate in order to:

(...) (d) encourage the development of **innovation** policy, via the exchange of information and good practice regarding the commercialisation of research and development (including support instruments for **technology**-based business start-ups), cluster development and access to finance; (...)

CHAPTER 14

Information society

Article 389

The Parties shall step up cooperation on the development of the Information Society to benefit citizens and businesses through the widespread availability of Information and Communication **Technology** (ICT) and through better quality of services at affordable prices. This cooperation will also facilitate the access to the markets for electronic communication services, encouraging competition and investment in the sector.

CHAPTER 17

Agriculture and rural development

(...) Article 404

Cooperation between the Parties in the field of agriculture and rural development shall cover, inter alia, the following areas:

(...) (c) promoting modern and sustainable agricultural production, respectful of the environment and of animal welfare, including extension of the use of organic production methods and the use of **biotechnologies**, inter alia through the implementation of best practices in those fields; (...)"

96. EU – Georgia RTA (in force since 01 Sep. 2014):

“Article 288

The Parties shall cooperate within the framework of the European Statistical System in which Eurostat is the European statistical authority. The cooperation shall include a focus on the areas of:

(g) horizontal activities, including statistical classifications, quality management, training, dissemination, use of modern information **technologies**, and (...)

Article 293

This cooperation shall cover, inter alia the following areas:

(...) (j) scientific and technical cooperation and exchange of information for the development and improvement of technologies in energy production, transportation, supply and end use with particular attention to energy efficient and environmentally friendly **technologies**, and (...)

CHAPTER 3

Environment

Article 301

The Parties shall develop and strengthen their cooperation on environmental issues, thereby contributing to the long-term objective of sustainable development and greening the economy. It is expected that enhanced environment protection will bring benefits to citizens and businesses in Georgia and in the EU, including through improved public health, preserved natural resources, increased economic and environmental efficiency, as well as use of modern, cleaner **technologies** contributing to more sustainable production patterns. Cooperation shall be conducted considering the interests of the Parties on the basis of equality and mutual benefit, as well as taking

into account the interdependence existing between the Parties in the field of environment protection, and multilateral agreements in the field.

Article 308

Cooperation shall aim at mitigating and adapting to climate change, as well as promoting measures at international level, including in the areas of:

(...) (d) research, development, demonstration, deployment and diffusion of safe and sustainable low carbon and adaptation **technologies**, and (...)

Article 309

The Parties shall, inter alia, exchange information and expertise; implement joint research activities and exchange of information on cleaner **technologies**; implement joint activities at regional and international level, including with regard to multilateral environment agreements ratified by the Parties and joint activities in the framework of relevant agencies as appropriate. The Parties shall pay special attention to transboundary issues and regional cooperation.

Article 310

Based on mutual interests, the cooperation shall cover, inter alia, the development and implementation of: (a) national Adaptation Plan of Action (NAPA);

(b) Low Emissions Development Strategy (LEDS), including nationally appropriate mitigation actions;

(c) measures to promote **technology** transfer on the basis of **technology** needs assessment;

(d) measures related to ozone-depleting substances and fluorinated greenhouse gases.

CHAPTER 5

Industrial and enterprise policy and mining

(...) Article 314

To these ends, the Parties shall cooperate in order to:

(...) (d) encourage the development of **innovation** policy, via the exchange of information and good practices regarding the commercialisation of research and development (including support instruments for **technology**-based business start-ups, cluster development and access to finance);

CHAPTER 8

Cooperation in the field of information society

Article 324

The Parties shall promote cooperation on the development of the Information Society to benefit citizens and businesses through the widespread availability of information and communication **technologies** (ICT) and through better quality of services at affordable prices. This cooperation should aim at facilitating access to electronic communications markets, encourage competition and investment in the sector.

Article 340

This cooperation shall include:

(a) exchange of information, best practices, experience and maritime 'know-how' transfer, including on **innovative technologies** in maritime sectors and on marine environment issues; (...)

CHAPTER 12

Cooperation in research, **technological** development and demonstration

Article 342

The Parties shall promote cooperation in all areas of civil scientific research and **technological** development and demonstration (RTD) on the basis of mutual benefit and subject to appropriate and effective levels of protection of intellectual property rights. (...)

Article 343

Cooperation in RTD shall cover:

(a) policy dialogue and the exchange of scientific and **technological** information; (...).”.

97. EU – Moldova RTA (in force since 01 Sep. 2014):

“CHAPTER 10

Industrial and enterprise policy

(...) Article 63

(...) To those ends, the Parties shall cooperate in order to:

(...) (d) encourage the development of **innovation** policy, via the exchange of information and good practice regarding the commercialisation of research and development (including support instruments for **technology**-based business start-ups), cluster development and access to finance;

Article 87

Cooperation shall aim at preserving, protecting, improving, and rehabilitating the quality of the environment, protecting human health, sustainable utilisation of natural resources and promoting measures at international level to deal with regional or global environmental problems, including in the areas of:

(...) (n) eco-**innovation** including best available **technologies**.

CHAPTER 16

Environment

(...) Article 89

The cooperation shall cover, inter alia, the following objectives:

(a) development of an overall strategy on the environment, covering planned institutional reforms (with timetables) for ensuring implementation and enforcement of environmental legislation; division of competence for the environmental administration at national, regional and municipal levels; procedures for decision making and the implementation of decisions; procedures for the promotion of the integration of the environment into other policy areas; promotion of green economy measures and eco-**innovation**, identification of the necessary human and financial resources and a review mechanism; and

(b) development of sector strategies on air quality; water quality and resource management; waste and resource management; biodiversity and nature protection; industrial pollution and industrial hazards and chemicals, noise pollution, soil protection, urban and rural environment, eco-**innovation** including clearly defined timetables and milestones for implementation, administrative responsibilities, as well as financing strategies for investments for infrastructure and **technology**.

CHAPTER 19

Tourism

(...) Article 105

Cooperation shall focus on the following topics:

(a) exchange of information, best practices, experience and ‘know-how’ transfer, including on **innovative technologies**; (...)

TITLE II

POLITICAL DIALOGUE AND REFORM, COOPERATION IN THE FIELD OF FOREIGN AND SECURITY POLICY

(...) Article 9

Weapons of mass destruction

(...) 2. The Parties furthermore agree to cooperate and to contribute to countering the proliferation of WMD and their means of delivery by:

(...) (b) establishing an effective system of national export controls, controlling the export as well as transit of WMD-related goods, including a WMD end-use control on dual-use **technologies**, and containing effective sanctions for breaches of export controls.

Article 375

Working together on trade and sustainable development

The Parties recognise the importance of working together on trade-related aspects of environmental and labour policies in order to achieve the objectives of Title V (Trade and Trade-related Matters) of this Agreement. They may cooperate in, inter alia, the following areas:

(...)

(j) trade-related aspects of the current and future international climate change regime, including means to promote low-carbon **technologies** and energy efficiency;

CHAPTER 14

Energy cooperation

(...) The cooperation shall cover, among others, the following areas and objectives:

(...) (h) scientific and technical cooperation and exchange of information for the development and improvement of **technologies** in energy production, transportation, supply and end use, with particular attention to energy efficient and environmentally friendly **technologies**; and

CHAPTER 15

Transport

(...) Article 81

That cooperation shall cover, among others, the following areas:

(...) (f) scientific and technical cooperation and exchange of information for the development and improvement of **technologies** in transport, such as intelligent transport systems; and

(g) promotion of the use of intelligent transport systems and information **technology** in managing and operating all modes of transport as well as supporting intermodality and cooperation in the use of space systems and commercial applications facilitating transport.

CHAPTER 16

Environment

Article 86

The Parties shall develop and strengthen their cooperation on environmental issues, thereby contributing to the long- term objective of sustainable development and greening the economy. It is expected that enhanced environment protection will bring benefits to citizens and businesses in the EU and in the Republic of Moldova, including through improved public health, preserved natural resources, increased economic and environmental efficiency, integration of the environment into other policy areas, as well as the use of modern, cleaner **technologies** contributing to more sustainable production patterns. Cooperation shall be conducted considering the interests of the Parties on the basis of equality and mutual benefit, as well as taking into account the interdependence existing between the Parties in the field of environment protection, and multilateral agreements in that field.

Article 88

The Parties shall, inter alia:

(...) (b) implement joint research activities and exchange of information on cleaner **technologies**; (...)

Article 93

Cooperation shall promote measures at domestic, regional and international level, including in the areas of:

(...) (d) research, development, demonstration, deployment and diffusion of safe and sustainable low-carbon and adaptation **technologies**; (...)

Article 94

The Parties shall, inter alia:

(a) exchange information and expertise;

(b) implement joint research activities and exchanges of information on cleaner **technologies**; (...)

Article 95

The cooperation shall cover, among others, the development and implementation of: (...) (g) measures to promote **technology** transfer on the basis of a **technology** needs assessment; (...)

CHAPTER 18

Information society

Article 98

The Parties shall strengthen cooperation on the development of the Information Society to benefit citizens and businesses through the widespread availability of Information and Communication **Technology** (ICT) and through better quality of services at affordable prices. That cooperation should aim at facilitating access to electronic communications markets, encouraging competition and investment in the sector, and promoting the development of public services online.

Article 105

Cooperation shall focus on the following topics:

(a) exchange of information, best practices, experience and ‘know-how’ transfer, including on **innovative technologies**; (...)

CHAPTER 24

Cooperation in research, **technological** development and demonstration

Article 127

The Parties shall promote cooperation in all areas of civil scientific research and **technological** development and demonstration (RTD) on the basis of mutual benefit and subject to appropriate and effective protection of intellectual property rights.

Article 128

Cooperation in RTD shall cover:

(a) policy dialogue and the exchange of scientific and **technological** information; (...)

98. Korea – Australia RTA (in force since 12 Dec. 2014):

“CHAPTER 16

COOPERATION

ARTICLE 16.4: **INNOVATION**, RESEARCH AND DEVELOPMENT

1. The Parties, recognising the importance of **innovation**, research and development to agriculture, fisheries and forestry, shall endeavour, as appropriate, to promote cooperative activities in relevant fields. These activities may include scientific and **technological** developments in:

- (a) sustainable resource management;
- (b) water management and water use efficiency;
- (c) climate change adaptation and mitigation;
- (d) mitigation of climate-related extremes;
- (e) animal husbandry practices including reproductive **technologies**, nutrition, and livestock identification and traceability systems;
- (f) productivity enhancements in agriculture, fisheries, forestry and food;
- (g) biosecurity, including farm biosecurity;
- (h) animal and plant disease research;
- (i) **biotechnology**;
- (j) food safety; and
- (k) any other fields of **innovation**, research and development as may be identified and agreed by the Parties.”

99. Eurasian Economic Union (EAEU)²⁵¹ (in force since 01 Jan. 2015):

“Section XVII

²⁵¹ According to the WTO RTA Database, the EAEU is comprised of: Armenia; Belarus; Kazakhstan; Kyrgyz Republic; Russian Federation.

TAXES AND TAXATION

Article 71

Principles of Member States Cooperation in the field of Taxation

1. Goods imported from the territory of one member State into the territory of another member State shall be levied by indirect taxes.
2. Member States in mutual trade shall collect taxes, other charges and payments so that taxation in the member State on the territory of which the goods of other member States are sold is no less favorable than the taxation applied by this member State under the similar circumstances in respect of like goods, originating from its territory.”
3. Member States shall determine directions, as well as forms and procedure of harmonization of tax legislation that affect mutual trade in order to avoid violation of competition conditions and not to prevent free movement of goods, works and services at the national level or at the level of the EAEU, including:
 - 1) harmonization (approximation) of excise rates on the most sensitive excisable goods;
 - 2) further improvement of the system on collection of value added tax in mutual trade (including the use of information **technologies**).

Section XX

ENERGY

Article 79

Interaction of the Member States in the Energy Sector

1. For the purposes of the effective use of the potential of fuel and energy complexes of the member States as well as providing national economies with the main types of energy resources (electricity, gas, oil and petroleum products), member States shall develop a long-term mutually beneficial cooperation in the energy sector, conduct a coordinated energy policy, implement the gradual formation of common markets of energy resources in accordance with international agreements provided for in Articles 81, 83 and 84 of this Treaty, with a view to ensure energy security, based on the following basic principles:
 - (...) 3) lack of technical, administrative and other barriers to trade in energy resources, appropriate equipment, **technology** and services related to them;
 - (...) 7) harmonization of national norms and rules of the **technological** and commercial infrastructure of common markets of the energy resources.

SECTION XXIV

INDUSTRY

Article 92

Industrial Policy and Cooperation

- (...) 4. The member States to achieve goals of industrial policy implementation within the EAEU may:
 - (...) 6) develop **technological** and informative resources for the goals of industrial cooperation;
 - (...) 9. To implement industrial cooperation within the EAEU the member States with consultative assistance and coordination by the Commission will be able to develop and apply the following instruments:
 - (...) 3) joint **technological** platforms and industrial clusters;”

100. Mexico – Panama RTA (in force since 01 Jul. 2015):

“CAPÍTULO 7

MEDIDAS SANITARIAS Y FITOSANITARIAS

(...) Artículo 7.9: Cooperación Técnica

1. Las Partes:

- (a) facilitarán la prestación de asistencia técnica bilateral, en los términos y condiciones mutuamente acordados, para fortalecer sus medidas sanitarias y fitosanitarias, así como actividades relacionadas, incluidas la investigación, **tecnología** de proceso, entre otros;

CAPÍTULO 15
PROPIEDAD INTELECTUAL

Artículo 15.11: Cooperación, Ciencia y **Tecnología**

1. Las Partes, reconociendo la importancia de los derechos de propiedad intelectual como factor de desarrollo social, económico y cultural, convienen en intensificar su cooperación en el ámbito de los derechos de propiedad intelectual sobre bases de equidad y beneficio recíproco, en los términos y condiciones que sus autoridades competentes acuerden mutuamente.

2. De acuerdo con las posibilidades de las Partes, las áreas de cooperación podrán incluir las siguientes actividades:

(a) intercambio de información sobre los marcos legales y el intercambio de experiencias sobre los procesos legislativos relacionados con los derechos de propiedad intelectual;”

101. Türkiye – Malaysia RTA (in force since 01 Aug. 2015):

“Article 5.8

Customs Cooperation

1. To the extent permitted by their domestic law, the customs administrations of the Parties may, as deemed appropriate, assist each other, in relation to:

(...) (e) advancing technical skills and the use of **technology**; and

CHAPTER 9
ECONOMIC AND TECHNICAL COOPERATION

Article 9.2

Scope

(...) 3. The Parties may extend cooperation to other areas not covered by the provisions of this Chapter such as but not limited to education and human capital development, communications, science and **technology**.

Article 9.4

Cooperation in Investment Promotion between the Parties

The Parties recognise the importance of promoting investment and **technology** flows as a means of achieving economic growth and development. Without prejudice to the provisions of “Agreement between the Government of the Republic of Turkey and the Government of Malaysia for Reciprocal Promotion and Protection of Investments”, the Parties agree to cooperate on, inter alia:

(a) discussing effective ways on investment promotion activities and capacity building;

(b) facilitating the provision and exchange of investment information including laws, regulations and policies to increase awareness of investment opportunities;

(c) encouraging and supporting investment promotion activities of each Party or their business sectors; and

(d) encouraging the establishment of joint ventures or any form of collaborations between their private sectors with a view to promote investment in third countries.

Article 9.5

Cooperation between Small and Medium-Sized Enterprises

With the view to further enhance trade and economic activities, the Parties shall give priority to promoting business and investment opportunities as well as joint ventures between their SMEs. Within this context, the Parties shall, inter alia:

(a) establish networking opportunities for Malaysian and Turkish SMEs to facilitate collaboration and exchange of experience, such as in the field of **technology** transfers, product quality improvements, supply chain linkages, access to financing for SMEs and technical assistance; (...)

Article 9.7

Cooperation in Agriculture and Food Industry

Taking into account the importance of cooperation in agriculture and food industry for enhancement of bilateral economic and commercial relations, the Parties shall

cooperate on, inter alia, the following fields:
(...) (e) promotion of transfer of **technology** and know-how in agro-industry and food industry.

Article 9.11

Cooperation in Research, Development and **Innovation**

Cooperation in research, development and **innovation** will be realized through cooperation activities in sectors where mutual and complementary interests exist. Where possible, the Parties shall also encourage partnerships to develop **innovative** products and services as well as activities to promote linkage, **innovation** and **technology** exchange.

Article 9.17

Cooperation in Automotive

The Parties shall encourage cooperation between enterprises in the automotive sector to enhance, inter alia, the exchange of technical experts and sharing of knowledge and **technology**. The areas and forms of cooperation shall be determined by the enterprises and related organisations.”

102. Chile – Thailand RTA (in force since 05 Nov. 2015):

“Chapter 11

Economic Cooperation

(...) Article 11.5: Environmental Issues

(...) 4. The Parties shall endeavour to cooperate in the field of the environment as mutually agreed by both Parties. The aim of cooperation will be the prevention and/or reduction of pollution and degradation of natural resources and ecosystems, and rational use of the latter; through developing and endorsing special programmes and projects dealing, inter alia, with the transfer of knowledge and **technology**.

(...)

5. Cooperation on environment may include:

(...) (j) green **technology**.

Article 11.7: Electronic Commerce

1. Recognizing the global nature of electronic commerce, the Parties shall endeavour to:

(...) (e) encourage interoperability of electronic authentication and digital certificates in the business and government sectors, work towards the mutual recognition of digital certificates at government level, based on internationally accepted standards, and maintain domestic legislation for electronic authentication that:

(i) permits parties to electronic transactions to determine the appropriate authentication **technologies** and implementation models for their electronic transactions, without limiting the recognition of such **technologies** and implementation models; and

(ii) permits parties to electronic transactions to have the opportunity to prove in court that their electronic transactions comply with any legal requirements;”

103. Korea – China RTA (in force since 20 Dec. 2015):

“CHAPTER 16

ENVIRONMENT AND TRADE

Article 16.7: Bilateral Cooperation

(...).2. In order to promote the achievement of the objectives of this Chapter and to assist in the fulfillment of their obligations pursuant to it, the Parties have established the following indicative list of areas of cooperation:

(a) promotion of the dissemination of environmental goods including environmentally-friendly products and environmental services;

(b) cooperation on development of environmental **technology** and promotion of environmental industry;

(c) exchange of information on policies, activities and measures for environmental protection; (...)

CHAPTER 17 ECONOMIC COOPERATION

Article 17.10: Information and Communications **Technology** Cooperation

1. The Parties, recognizing the rapid development of Information and Communications **Technology** (hereinafter referred to as the “ICT”) shall endeavor to promote the development of ICT and ICT-related services with a view to obtaining the maximum benefit of the use of ICT for the Parties.

(...) 3. The Parties will encourage cooperation in the following areas, including, but not limited to, the following:

- (a) scientific and technical cooperation for the software industry of the Parties;
- (b) research and development and management of information **technology** parks;
- (c) research and development on information **technology** services such as integration of broadcasting and telecommunications; (...)

Article 17.19: Science and **Technology** Cooperation

1. The Parties, recognizing the importance of science and **technology** in their respective economies, shall endeavor to develop and promote cooperative activities in the field of science and **technology**.

2. The Parties will encourage and facilitate cooperation in areas, as appropriate, including, but not limited to, the following:

- (a) joint research and development, including, if necessary, sharing of equipment;
- (b) exchange of scientists, researchers, research equipment engineers, technicians, and experts;
- (c) joint organization of seminars, symposia, conferences, and other scientific and technical meetings, including the participation of experts in those activities;
- (d) exchange of information on practices, policies, laws, regulations, and programs related to science and **technology**;
- (e) cooperation in the commercialization of products and services resulting from joint scientific and **technological** activities; and
- (f) any other forms of scientific and **technological** cooperation as agreed by the Parties.”

104. Korea – Viet Nam RTA (in force since 20 Dec. 2015):

“CHAPTER 12 INTELLECTUAL PROPERTY

(...)

Article 12.10: Cooperation

(...) 4. The Parties also agree to cooperate, through their intellectual property offices, on the following issues:

- (a) capacity building for officials or experts on intellectual property rights;
- (b) intellectual property administration, and registration systems, including publicly accessible databases;
- (c) education and public awareness of intellectual property rights;
- (d) intellectual property commercialization and **technology** transfer;
- (e) improvement of quality management procedures; and
- (f) other areas agreed by the Parties.

CHAPTER 13 ECONOMIC COOPERATION

Article 13.3 : Forms of Cooperation

(...) (m) model and **technology** transfer; and (...)”

105. Japan – Mongolia RTA – Implementation Agreement (in force since 07 Jun. 2016):

“Article 5.6

Science and **Technology** and Intellectual Property

Pursuant to Article 15.2 of the Basic Agreement, in the field referred to in subparagraph (f) of Article 15.1 of the Basic Agreement:

(a) the areas of cooperation may include:

- (i) encouraging [innovation](#);
- (ii) advanced science and [technology](#);
- (iii) utilization of intellectual property rights for [innovation](#) and economic growth;
- (iv) capacity building in the field of enforcement of intellectual property rights at the border;
- (v) capacity building for organizations for collective management of copyrights and related rights;
- (vi) development of human resources with advanced knowledge and skills; and
- (vii) other areas as may be agreed by the Parties; and (...)

Chapter 15 Cooperation

Article 15.1 Basic Principles

The Parties shall, in accordance with their respective laws and regulations, promote cooperation under this Agreement for their mutual benefit, in order to further liberalize and facilitate trade in goods and services as well as investment between the Parties and to promote the well-being of the people and sustainable development of the Parties. For this purpose, the Parties shall enhance further cooperation between their Governments, and encourage and facilitate mutual cooperation between relevant entities of the Parties, one or both of whom are entities other than the Governments of the Parties, in the following fields:

- (...) (f) science and [technology](#) and intellectual property; (...)
- (n) information and communications [technology](#); and (...)"

106. Korea – Colombia RTA (in force since 15 Jul. 2016):

“ARTICLE 15.10: [TECHNOLOGY](#) TRANSFER AND COOPERATION

[Technology](#) Transfer

1. The Parties recognize the importance of [technological innovation](#) as well as transfer of [technology](#) and dissemination of scientific and [technological](#) information to the mutual advantage of [technology](#) producers and users. Accordingly, the Parties will seek to develop and encourage cooperation programs, through collaborations in science, [technology](#), and [innovation](#). The Parties shall take into account the cooperation issues and activities developed under the Agreement on Scientific and Technical Cooperation between the Parties, signed in 1981, with the purpose of encouraging and strengthening the cooperative activities on research, [innovation](#), and [technology](#) transfer. (...)

CHAPTER SEVENTEEN

COOPERATION

ARTICLE 17.1: SCOPE AND OBJECTIVES

(...) 3. To achieve these objectives, the Parties agree to pay particular attention to cooperation initiatives aimed at:

- (a) stimulating productive synergies, creating new opportunities for trade and investment, and promoting competitiveness and [innovation](#); (...)"

107. Costa Rica – Colombia RTA (in force since 01 Aug. 2016):

“ARTÍCULO 9.8: COOPERACIÓN Y CIENCIA, [TECNOLOGÍA](#) E [INNOVACIÓN](#)

1. Las Partes intercambiarán información y material en proyectos de educación y disseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

- (a) mejorar y fortalecer los sistemas administrativos de la propiedad intelectual para promover el registro eficiente de los derechos de propiedad intelectual;

(b) estimular la creación y desarrollo de la propiedad intelectual dentro del territorio de las Partes, particularmente de los pequeños inventores y creadores, así como de las micro, pequeñas y medianas empresas;

(c) promover el diálogo y la cooperación con relación a la ciencia, la **tecnología**, el emprendimiento y la **innovación**; y

(d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo tecnológico, el emprendimiento y la **innovación**, así como la importancia de diseminar la información tecnológica y de crear y fortalecer sus capacidades tecnológicas; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la **innovación**, el emprendimiento, la transferencia y la difusión de **tecnología** entre las Partes, dirigidos, entre otros, a empresas, instituciones de educación superior y, centros de investigación y desarrollo **tecnológico**.

4. Las actividades de cooperación en ciencia, **tecnología** e **innovación** podrán adoptar, entre otras, las siguientes formas:

(a) participación en proyectos conjuntos de educación, investigación, desarrollo **tecnológico** e **innovación**; (...)

(e) acciones concertadas para la difusión de los resultados y el intercambio de experiencias en torno a los proyectos conjuntos de ciencia **tecnología** e **innovación** y para la coordinación de los mismos;

6. Cada Parte designa como entidades de contacto, responsables del cumplimiento de los objetivos del presente Artículo, y de facilitar el desarrollo de los proyectos de colaboración y cooperación en investigación, **innovación** y desarrollo **tecnológico**, a las siguientes entidades:

(a) en el caso de Colombia, al Ministerio de Comercio, Industria y Turismo en coordinación con el Departamento Administrativo de Ciencia, **Tecnología** e **Innovación** (COLCIENCIAS); y (...)

CAPÍTULO 5

COOPERACIÓN TÉCNICA Y ASISTENCIA MUTUA EN ASUNTOS ADUANEROS

(...) ARTÍCULO 5.2: COOPERACIÓN TÉCNICA

(...) 2. La cooperación técnica versará, entre otras cosas en:

(a) la capacitación para el desarrollo de habilidades especializadas de sus funcionarios aduaneros;

(b) el intercambio de información profesional, científica y técnica, en nuevas **tecnologías** y métodos, relacionados con la legislación aduanera y procedimientos aplicables; (...)

CAPÍTULO 17

ENTRADA TEMPORAL DE PERSONAS DE NEGOCIOS

(...) ARTÍCULO 17.6: COOPERACIÓN

Tomando en consideración los principios establecidos en el Artículo 17.1, las Partes procurarán en la medida de lo posible:

(...) (b) intercambiar información y experiencias sobre regulaciones e implementación de programas y **tecnología** en el marco de asuntos migratorios, incluyendo aquellos relacionados con el uso de **tecnología** biométrica, sistemas de información adelantada de pasajeros, programas de pasajero frecuente y seguridad en los documentos de viaje; y”

108. EU – SADC²⁵² RTA (in force since 01 Oct. 2016):

“Article 13
Cooperation priorities

²⁵² According to the WTO RTAs Database, the signatories of the SADC are: Botswana; Lesotho; Mozambique; Namibia; South Africa; Eswatini.

(...) 3. Cooperation in supply-side competitiveness shall aim at increasing the competitiveness of the SADC EPA States and remove supply side constraints at national, institutional and, in particular, at company level. This cooperation includes, amongst others, fields such as production, **technology** development and **innovation**, marketing, financing, distribution, transport, diversification of economic base, as well as development of the private sector, improvement of the trade and business environment and support to small and medium enterprises in the fields of agriculture, fisheries, industry and services.

Article 13

Cooperation priorities

(...) 4. Cooperation in business enhancing infrastructure shall aim at developing a competitive business enhancing environment in areas such as information and communication **technology**, transport and energy.”

109. Peru – Honduras RTA (in force since 01 Jan. 2017):

“(…) Artículo 9.8: Cooperación, Ciencia y **Tecnología**

1. Las Partes intercambiarán información y material en proyectos de educación y diseminación respecto del uso de los derechos de propiedad intelectual, en concordancia con sus leyes nacionales, regulaciones y políticas, con miras a:

(...) (c) promover el diálogo y la cooperación con relación a la ciencia, la **tecnología**, el emprendimiento y la **innovación**; y

(d) otros asuntos de mutuo interés sobre derechos de propiedad intelectual.

2. Las Partes reconocen la importancia de promover la investigación, el desarrollo tecnológico, el emprendimiento y la **innovación**, así como la importancia de diseminar la información tecnológica y de crear y fortalecer sus capacidades tecnológicas; para tal fin, cooperarán en dichas áreas teniendo en consideración sus recursos.

3. Las Partes propiciarán el establecimiento de incentivos para la investigación, la **innovación**, el emprendimiento, la transferencia y la difusión de **tecnología** entre las Partes, dirigidos, entre otros, a empresas, universidades, centros de investigación y centros tecnológicos.

4. Las actividades de cooperación en ciencia y **tecnología** podrán adoptar, entre otras, las siguientes formas:

(a) participación en proyectos conjuntos de educación, investigación, desarrollo tecnológico e **innovación**; (...)

6. Cada Parte designa como entidades de contacto responsables del cumplimiento de los objetivos de este Artículo, y de facilitar el desarrollo de los proyectos de colaboración y cooperación en investigación, **innovación** y desarrollo tecnológico, a las siguientes:

(a) en el caso de Honduras: la Secretaría de Estado en el Despacho de Desarrollo Económico; y

(b) en el caso del Perú: el Consejo Nacional de Ciencia, **Tecnología** e **Innovación** Tecnológica (CONCYTEC), o sus sucesores.”

110. Canada – Ukraine RTA (in force since 01 Aug. 2017):

“Chapter 15: Trade-related cooperation

Article 15.1: Trade-Related Cooperation

1. Recognizing that trade-related cooperation is a catalyst for the reforms and investments necessary to foster trade-driven economic growth and adjustment to liberalized trade, the Parties undertake to promote trade-related cooperation, with the following objectives:

(a) to strengthen the capacities of the Parties to maximize the opportunities and benefits deriving from this Agreement;

(b) to strengthen and develop cooperation at a bilateral, regional or multilateral level;

(c) to foster new trade and investment opportunities in areas of mutual interest such as those relating to science, **technology** and **innovation**; and

(d) to promote sustainable economic development, with an emphasis on small and medium-sized enterprises.

(...) 2. Trade-related cooperation may include:

(a) exchange of information, transfer and exchange of expertise and training, such as facilitating exchange visits of researchers, experts, specialists and private sector representatives;

(b) joint activities such as joint studies and joint research concerning issues relating to this Agreement;

(c) transfer of **technology**, skills and practices;

(d) institutional assistance and capacity-building such as through training seminars, workshops, conferences and internships;

(e) participation in international activities; and

(f) any other means of cooperation as jointly decided by the Parties.”

111. Southern Common Market (MERCOSUR) - Egypt RTA (in force since 01 Sept. 2017):

“SECTION III

INVESTMENT AND SERVICES

Article 23 - Investment Promotion

1. The Parties recognize the importance of promoting cross-border investment flows and **technology** transfers as means for achieving economic growth and development. In order to increase investment flows, the Parties or Signatory Parties may cooperate through:

a) exchanging information, including potential sectors and investment opportunities, laws, regulations, and policies, so as to increase awareness on their investment environments;

b) encouraging and supporting investment promotion activities such as investment conferences, fairs, exhibitions and investment promotion missions;

c) discussing the possibility of negotiating bilateral investment promotion agreements with a view to furthering investment flows and **technology** transfer; and,

d) developing mechanisms for joint investments, in particular with small and medium enterprises.”

112. EU – Canada RTA (in force since 21 Sep. 2017):

“CHAPTER TWENTY-FIVE

Bilateral dialogues and cooperation

Article 25.1

Objectives and principles

(...) 1. Building upon their well-established partnership and shared values, the Parties agree to facilitate cooperation on issues of common interest, including through:

(...) d) encouraging enhanced cooperation on science, **technology**, research and **innovation** issues.

(...) Article 25.5

Enhanced cooperation on science, **technology**, research and **innovation**

1. The Parties acknowledge the interdependence of science, **technology**, research and **innovation**, and international trade and investment in increasing industrial competitiveness and social and economic prosperity.

2. Building upon this shared understanding, the Parties agree to strengthen their cooperation in the areas of science, **technology**, research and **innovation**.

3. The Parties shall endeavour to encourage, develop and facilitate cooperative activities on a reciprocal basis in support of, or supplementary to the Agreement for Scientific and **Technological** Cooperation between the European Community and Canada, done at Halifax on 17 June 1995. The Parties agree to conduct these activities on the basis of the following principles:

(a) the activities are of mutual benefit to the Parties;

(b) the Parties agree on the scope and parameters of the activities; and

(c) the activities should take into account the important role of the private sector and research institutions in the development of science, **technology**, research and **innovation**, and the commercialisation of goods and services thereof.

4. The Parties also recognise the importance of enhanced cooperation in science, **technology**, research and **innovation**, such as activities initiated, developed or undertaken by a variety of stakeholders, including the Canadian federal government, the Canadian Provinces and Territories, the European Union and its Member States.”

113. El Salvador – Ecuador RTA (in force since 16 Nov. 2017):

“Capítulo IX
Cooperación Comercial
Artículo IX.1: Objetivos

La cooperación que se desarrolle entre las Partes tendrá los siguientes objetivos:
(...) (d) desarrollar las condiciones para generar acciones que impulsen el intercambio de transferencia de **tecnología**, conocimiento e **innovación** entre las Partes;

(...) Artículo IX.4: Áreas Temáticas Prioritarias

Las Partes han definido como temas de alta prioridad, sin perjuicio de los que se puedan determinar posteriormente, los siguientes:

1. Cooperación en materia de acceso a mercados

Las Partes podrán facilitar iniciativas conjuntas destinadas a promover la cooperación técnica para alcanzar la complementariedad productiva en sectores prioritarios e impulsar el mejor aprovechamiento de este Acuerdo, utilizando los recursos productivos de una manera sustentable y sostenible, para el incremento de su comercio bilateral, mediante actividades como:

(a) la gestión de alianzas estratégicas que permitan acceder de mejor manera a los mercados internacionales;

(b) la asistencia mutua para el desarrollo **tecnológico** y el mejoramiento de la productividad y competitividad con miras a alcanzar la complementariedad productiva entre las Partes; (...)”

114. EU – Armenia RTA (in force since 01 Jun. 2018):

“CHAPTER 4
Climate action
Article 52

Cooperation shall promote measures at domestic, regional and international level, including with regard to:

(...) (d) research into and the development, demonstration, deployment, transfer and diffusion of new, **innovative**, safe and sustainable low-carbon and adaptation **technologies**;

(...) Article 53

1. The Parties shall, inter alia:

(a) exchange information and expertise;

(b) implement joint research activities and exchanges of information on cleaner and environmentally sound **technologies**;

(c) implement joint activities at regional and international level, including with regard to multilateral environmental agreements ratified by the Parties, such as the United Nations Framework Convention on Climate Change of 1992 (‘UNFCCC’) and the Paris Agreement of 2015, and joint activities in the framework of relevant agencies, as appropriate.

2. The Parties shall pay special attention to transboundary issues and regional cooperation.

CHAPTER 5
Industrial and enterprise policy

(...) Article 58

The Parties shall cooperate in order to:

(...) (d) encourage the development of innovation policy, via the exchange of information and good practice regarding the commercialisation of research and development (including support instruments for technology-based business start-ups), cluster development and access to finance.

CHAPTER 9

Tourism

(...) Article 68

The cooperation shall focus on the following topics:

(a) the exchange of information, best practices, experience and know-how, including with regard to innovative technologies;

CHAPTER 13

Cooperation in research, technological development and innovation

Article 78

The Parties shall promote cooperation in all areas of civil scientific research, technological development and innovation on the basis of mutual benefit and subject to appropriate and effective protection of intellectual property rights.

Article 79

Cooperation referred to in Article 78 shall cover:

- (a) policy dialogue and the exchange of scientific and technological information;
- (b) the facilitation of adequate access to the respective programmes of each Party;
- (c) initiatives to increase research capacity and the participation of research entities from the Republic of Armenia in the research framework programme of the European Union;
- (d) the promotion of joint projects for research in all areas of research and innovation;
- (e) training activities and mobility programmes for scientists, researchers and other research staff engaged in research and innovation activities on both sides;
- (f) the facilitation, within the framework of applicable legislation, of the free movement of research workers participating in the activities covered by this Agreement and the cross-border movement of goods intended for use in such activities; and
- (g) other forms of cooperation in research and innovation on the basis of mutual agreement.”

115. Korea – Türkiye RTA - The Framework Agreement (Goods: in force since 01 May 2013; Services: in force since 01 Aug. 2018):

“CHAPTER 5

TRADE AND SUSTAINABLE DEVELOPMENT

ARTICLE 5.10: COOPERATION

(...) 2. In order to promote the achievement of the objectives of this Chapter and to assist in the fulfilment of their obligations pursuant to it, the Parties have established the following indicative list of areas of cooperation:

(...) (f) cooperation on trade-related aspects of the current and future international climate change regime, including issues relating to global carbon markets, ways to address adverse effects of trade on climate, as well as means to promote low-carbon technologies and energy efficiency;”

116. CPTPP²⁵³ (in force since 30 Dec. 2018):

“CHAPTER 18

INTELLECTUAL PROPERTY

(...) Article 18.13: Cooperation Activities and Initiatives

The Parties shall endeavour to cooperate on the subject matter covered by this Chapter, such as through appropriate coordination, training and exchange of

²⁵³ According to the WTO RTAs Database, the signatories of the CPTPP are: Australia; Brunei Darussalam; Canada; Chile; Japan; Malaysia; Mexico; New Zealand; Peru; Singapore; Viet Nam.

information between the respective intellectual property offices of the Parties, or other institutions, as determined by each Party. Cooperation may cover areas such as:
(...) (d) intellectual property issues relevant to:
(i) small and medium-sized enterprises;
(ii) science, **technology** and **innovation** activities; and
(iii) the generation, transfer and dissemination of **technology**;
(e) policies involving the use of intellectual property for research, **innovation** and economic growth; (...).

CHAPTER 21

COOPERATION AND CAPACITY BUILDING

(...) Article 21.2: Areas of Cooperation and Capacity Building

(...) 3. The Parties recognise that **technology** and **innovation** provides added value to cooperation and capacity building activities, and may be incorporated into cooperation and capacity building activities under this Article.”

117. EU – Japan RTA (in force since 01 Feb. 2019):

“SECTION D

Cooperation and institutional arrangements

ARTICLE 14.52

Cooperation

(...) 2. For the purpose of paragraph 1, cooperation may include exchange of information, sharing of experiences and skills and any other form of cooperation or activities as may be agreed between the Parties. Such cooperation may cover areas such as:

(...) (d) intellectual property issues relevant to:

(i) small and medium-sized enterprises;

(ii) science, **technology** and **innovation** activities; and

(iii) the generation, transfer and dissemination of **technology**;

(e) policies involving the use of intellectual property for research, **innovation** and economic growth;

CHAPTER 19

COOPERATION IN THE FIELD OF AGRICULTURE

(...) ARTICLE 19.2

Scope

(...) 2. The scope of cooperation referred to in paragraph 1 shall cover:

(a) the promotion of trade in agricultural products and foods, including a dialogue on the relevant regulation;

(b) cooperation with a view to improving farm management, productivity and competitiveness, including the exchange of best practices regarding sustainable agriculture, as well as the use of **technology** and **innovation**;

CHAPTER 16

TRADE AND SUSTAINABLE DEVELOPMENT

(...) ARTICLE 16.12

Cooperation

Recognising the importance of cooperation on trade-related and investment-related aspects of environmental and labour policies in order to achieve the objectives of this Agreement, the Parties may, inter alia:

(...) (h) cooperate on trade-related aspects of the international climate change regime, including on means to promote low-carbon **technologies**, other climate-friendly **technologies** and energy efficiency; (...)

CHAPTER 19

COOPERATION IN THE FIELD OF AGRICULTURE

(...) ARTICLE 19.2

Scope

(...) 1. The Parties shall cooperate in the areas referred to in Article 19.1 in accordance with their respective laws and regulations. The Parties shall encourage and facilitate cooperation among relevant groups, entities, competent authorities and other organisations of the Parties.

2. The scope of cooperation referred to in paragraph 1 shall cover:

(a) the promotion of trade in agricultural products and foods, including a dialogue on the relevant regulation;

(b) cooperation with a view to improving farm management, productivity and competitiveness, including the exchange of best practices regarding sustainable agriculture, as well as the use of **technology** and **innovation**;

(c) cooperation on production and **technology** in agriculture and foods; (...)"

118. Chile – Indonesia RTA (in force since 10 Aug. 2019):

“CHAPTER 9

Cooperation

(...) Article 9.11: Research, Development and **Innovation**

Cooperation in research, development and **innovation** shall focus on cooperative activities in sectors where mutual and complementary interests exist. If appropriate, the Parties shall also promote partnerships in the support of the development of innovative products and services and activities to promote linkage, **innovation** and **technology** exchange.”

119. EU – Singapore RTA (in force since 21 Nov. 2019):

“SECTION E

COOPERATION

ARTICLE 10.52

Cooperation

1. The Parties agree to cooperate with a view to supporting the implementation of the commitments and obligations undertaken under this Chapter. Areas of cooperation include, but are not limited to, the following activities:

(...) (d) capacity-building and technical cooperation in relation, but not limited, to: management, licensing, valuation and exploitation of intellectual property rights; **technology** and market intelligence; facilitation of industry collaborations, including on intellectual property rights that may be applied towards environmental conservation or enhancement, which may include establishing a platform or database; and public private partnerships to support culture and **innovation**.”

120. Peru – Australia RTA (in force since 11 Feb. 2020):

“CHAPTER 6

SANITARY AND PHYTOSANITARY MEASURES

(...) Article 6.11 Cooperation

(...) 2. The Parties shall give positive consideration to further cooperation through:

(...) (c) promoting the implementation of electronic certification and other **technologies** to facilitate trade.

CHAPTER 20

COOPERATION AND CAPACITY BUILDING

Article 20.2: Areas of Cooperation and Capacity Building

2. The public and private sectors may undertake cooperation and capacity building activities in areas of common interest, which may include, but are not limited to, the following areas:

(...) (c) **innovation**, **technology**, research and development; (...)

3. The Parties recognise that **technology** and **innovation** provide added value to cooperation and capacity building activities, and may be incorporated into cooperation and capacity building activities under this Article.”

121. United States-Mexico-Canada Agreement (USMCA/CUSMA/T-MEC) (in force since 01 Jul. 2020):

“CHAPTER 3

AGRICULTURE

(...) Article 3.14: Trade in Products of Agricultural Biotechnology

1. The Parties confirm the importance of encouraging agricultural innovation and facilitating trade in products of agricultural biotechnology, while fulfilling legitimate objectives, including by promoting transparency and cooperation, and exchanging information related to the trade in products of agricultural biotechnology. (...)

CHAPTER 26 COMPETITIVENESS

5. The Competitiveness Committee shall:

(...) (f) promote cooperative activities for trade and investment between the Parties with respect to innovation and technology, including best practices in their application; and”

122. EFTA²⁵⁴ – Ecuador RTA (in force since 01 Nov. 2020):

“ARTICLE 9.3

Fields of Cooperation

1. Cooperation and technical assistance may cover any fields jointly identified by the Parties that may serve to enhance the Parties’ and their economic operators’ capacities to benefit from increased trade and investment arising from this Agreement, including:

(a) promotion and facilitation of exports of goods and services to the other Parties and fostering competitiveness and innovation;

(b) strengthening of institutional capacities in the following areas, in addition to the areas provided in specific provisions of this Chapter:

(i) customs and origin matters;

(ii) encouraging technological innovation and dissemination of technological information;

(iii) facilitation of trade in services, by exchanging information on trade in services and where appropriate qualifications and standards;

(iv) promotion of investment and technology flows, by identifying investment opportunities and information channels on investment regulations, exchange of information on measures to promote investment abroad, and furthering of legal environment conducive to increased investment flows;

(v) facilitation in the collaboration on and development of intellectual property laws and practices, including training of stakeholders from the public, private sector and civil society, and to promote awareness on intellectual property rights in the general public; and

(vi) trade and investment related aspects of sustainable development;

(c) encouraging and stimulating business contacts, including between enterprises, with the aim of developing long lasting business relationships.”

123. EU – United Kingdom (in force since 01 Jan. 2021):

“ARTICLE 211

Cooperation on regulatory issues with regard to digital trade

1. The Parties shall exchange information on regulatory matters in the context of digital trade, which shall address the following:

(a) the recognition and facilitation of interoperable electronic authentication and electronic trust services;

(b) the treatment of direct marketing communications;

²⁵⁴ According to the WTO RTAs Database, EFTA is comprised of: Iceland; Liechtenstein; Norway; Switzerland.

(c) the protection of consumers; and
(d) any other matter relevant for the development of digital trade, including emerging **technologies**.

2. Paragraph 1 shall not apply to a Party's rules and safeguards for the protection of personal data and privacy, including on cross-border transfers of personal data.”

124. United Kingdom - SACU and Mozambique (in force since 01 Jan. 2021):

“ARTICLE 13

Cooperation priorities

(...) 3. Cooperation in supply-side competitiveness shall aim at increasing the competitiveness of the SACU Member States and Mozambique and remove supply side constraints at national, institutional and, in particular, at company level. This cooperation includes, amongst others, fields such as production, **technology** development and **innovation**, marketing, financing, distribution, transport, diversification of economic base, as well as development of the private sector, improvement of the trade and business environment and support to small and medium enterprises in the fields of agriculture, fisheries, industry and services.”

125. United Kingdom – Cameroon RTA (in force since 01 Jan. 2021):

“ANNEX I

Capacity building and modernisation under the EPA

B. Areas of assistance

The key areas of action that the UK may consider for assistance are set out in the table below:

If the UK is to provide support for any activities listed below, measures set out below must be compatible with the objectives of points 3 and 4.

(...) 3— Industry, diversification and competitiveness of economies in conjunction with regional development

(...) 3.4.2. Harmonisation of research and **innovation** policies (universities, public and private research institutes and centres, institutes of **technology**, vocational schools, etc.)

ANNEX V

Trade in Services, Competition and Investment

(...) INFORMATION AND COMMUNICATION **TECHNOLOGIES**, AND INFORMATION SOCIETY

Article 6

1. The Parties recognise the important role of information and communication **technologies**, as well as the active participation in the Information Society, as a pre-requisite for the successful integration of Cameroon into the world economy.

2. They therefore reconfirm their respective commitments under existing multilateral agreements, and note in particular the value of the protocol on Basic Telecommunications attached to the GATS. Where Cameroon, or in the event of accession, another Central African Contracting State, is not yet a member of relevant agreements, it will consider acceding to them.

3. The Parties furthermore agree to participate fully and actively in any future international negotiation which might be conducted in this area.

4. The Parties will therefore take measures that will enable inhabitants of Cameroon easy access to information and communication **technologies**, through, amongst other things, the following measures: (...)”

126. United Kingdom – CARIFORUM States²⁵⁵ RTA (in force since 01 Jan. 2021):

“Article 8

Cooperation priorities

1. Development cooperation as provided for in Article 7 shall be primarily focused on the following areas as further articulated in the individual Chapters of this Agreement: (...) (vi) The development of CARIFORUM innovation systems, including the development of technological capacity; (...)

Article 43A

CARIFORUM-UK Special Committee on Agriculture and Fisheries

(...) (d) engage in dialogue on matters relating to agriculture and fisheries, including in the following areas:

(...) (v) new technologies, research and innovation as well as policies and measures related to quality; and (...)”

127. United Kingdom – Eastern and Southern Africa States²⁵⁶ RTA (in force since 01 Jan. 2021):

“CHAPTER IV

ECONOMIC AND DEVELOPMENT COOPERATION

(...) ARTICLE 37

Scope

1. The Parties shall set out the development objectives related to the EPA that are specific to the ESA region and needed for the success of regional integration within the areas and sectors highlighted in this Article.

2. The areas that will be addressed by the cooperation are:

(...) (f) research and development, innovation and technology transfer;

(...)

3. The cooperation shall, in particular, cover the following sectors:

(a) Private Sector Development, particularly Industrial Development, micro-enterprises, small and medium-sized enterprises (MSME), Mining and Minerals as well as Tourism.

(b) Infrastructure Development, namely in the Transport, Energy, Information and Communication Technology (ICT) sectors.

(c) Natural Resources and Environment, including Water Resources and Biodiversity.

(d) Agriculture.

(e) Fisheries.

(f) Services including Tourism; and

(g) Trade related issues, namely Investment, Competition, Intellectual Property Rights, Standards, Trade Facilitation and Statistics.

(...) ARTICLE 41

Micro, small and medium-sized enterprises

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(a) capacity building and institutional support;

²⁵⁵ According to the WTO RTAs Database, the CARIFORUM States in this case are: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Haiti; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

²⁵⁶ According to the WTO RTAs Database, the Eastern and Southern Africa States abovementioned are: Mauritius; Seychelles; Zimbabwe.

(b) **technology** development and transfer, **innovation**, information exchange and networks and marketing; (...)

ARTICLE 42

Mining and minerals

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (e) transfer of **technology**, knowledge, **innovation** and Research and Development; and

ARTICLE 45

Transport

Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (d) **technology** development and transfer, **innovation**, information exchange and networks, and marketing;

ARTICLE 46

Energy

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (h) **technology** development and transfer, research and development (R&D), **innovation**, information exchange, development of databases and networks;

ARTICLE 47

Information and Communications **Technology** (ICT)

1. The Parties recognise the importance of cooperation in the development of ICT as a key sector in the modern society to foster competitiveness and **innovation**, as well as for the smooth transition towards the information society. The objective in this area is to develop the ICT sector and promote its contribution to other socio-economic sectors.

Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (d) **technology** development, transfer and applications, R&D, **innovation**, information exchange and networks, and marketing;

TITLE IV

Natural resources and environment

ARTICLE 49

Water resources

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (f) **technology** development, transfer and applications, R&D, **innovation**, information exchange and networks;

ARTICLE 50

Environment

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (h) **technology** development and adaptation, transfer and applications, R&D and **innovation;**"

128. United Kingdom – Georgia RTA (in force since 01 Jan. 2021):

“CHAPTER 5

Industrial and enterprise policy, [innovation](#) and mining

(...) ARTICLE 293

To these ends, the Parties shall cooperate in order to:

(...) (d) encourage the development of [innovation](#) policy, via the exchange of information and good practices regarding the commercialisation of research and development (including support instruments for [technology](#)-based business start-ups, cluster development and access to finance);

CHAPTER 8

Cooperation in the field of information society

(...) ARTICLE 303

Cooperation will cover, inter alia, the following subjects:

(a) exchange of information and best practices on the implementation of national information society initiatives, including, inter alia, those aiming at promoting broadband access, safe internet, improving network security and developing public online services, new [technologies](#) and ICT [innovations](#); and

CHAPTER 11

Fisheries and maritime governance

(...) Section 2

Maritime Policy

(...) ARTICLE 316

This cooperation shall include:

(a) exchange of information, best practices, experience and maritime ‘know-how’ transfer, including on [innovative technologies](#) in maritime sectors and on marine environment issues;”

CHAPTER 4

Climate action

(...) ARTICLE 288

Cooperation shall aim at mitigating and adapting to climate change, as well as promoting measures at international level, including in the areas of:

(...) (d) research, development, demonstration, deployment and diffusion of safe and sustainable low carbon and adaptation [technologies](#).

CHAPTER 12

Cooperation in research, [technological](#) development and demonstration

ARTICLE 318

The Parties may promote cooperation in all areas of civil scientific research and [technological](#) development and demonstration (RTD) on the basis of mutual benefit and subject to appropriate and effective levels of protection of intellectual property rights.

ARTICLE 319

Cooperation in RTD may cover:

- (a) policy dialogue and the exchange of scientific and [technological](#) information;
- (b) facilitating adequate access to the respective programmes of the Parties;
- (c) the promotion of joint projects for research in all areas of RTD;
- (d) training activities and mobility programmes for scientists researchers and other research staff engaged in RTD activities of the Parties in line with national legislation;
- (e) other forms of cooperation in RTD on the basis of mutual agreement.

129. United Kingdom – Japan RTA (in force since 01 Jan. 2021):

“CHAPTER 14 INTELLECTUAL PROPERTY

(...) ARTICLE 14.60

Cooperation

1. The Parties, recognising the growing importance of the protection of intellectual property in further promoting trade and investment between them, shall cooperate on intellectual property, including by exchange information on relations of a Party with third countries on matters concerning intellectual property, in accordance with their respective laws and regulations and subject to their available resources.

2. For the purposes of paragraph 1, cooperation may include exchange of information, sharing of experiences and skills and any other form of cooperation or activities as may be agreed between the Parties. Such cooperation may cover areas such as:

- (a) developments in domestic and international intellectual property policy;
- (b) intellectual property administration and registration systems;
- (c) education and awareness relating to intellectual property;
- (d) intellectual property issues relevant to:
 - (i) small and medium-sized enterprises;
 - (ii) science, **technology** and **innovation** activities; and
 - (iii) the generation, transfer and dissemination of **technology**;
- (e) policies involving the use of intellectual property for research, **innovation** and economic growth;
- (f) the implementation of multilateral intellectual property agreements, such as those concluded or administered under the auspices of the WIPO; (...)

CHAPTER 19

COOPERATION IN THE FIELD OF AGRICULTURE

(...)

ARTICLE 19.2

Scope

1. The Parties shall cooperate in the areas referred to in Article 19.1 in accordance with their respective laws and regulations. The Parties shall encourage and facilitate cooperation among relevant groups, entities, competent authorities and other organisations of the Parties.

2. The scope of cooperation referred to in paragraph 1 shall cover:

- (a) the promotion of trade in agricultural products and foods, including a dialogue on the relevant laws and regulations;
- (b) cooperation with a view to improving farm management, productivity and competitiveness, including the exchange of best practices regarding sustainable agriculture, as well as the use of **technology** and **innovation**; (...)

130. United Kingdom – Kenya RTA (in force since 01 Jan. 2021):

“ARTICLE 79

Transport

(...) 3. The Parties agree to cooperate in the following areas:

- (...) (d) **technology** development and transfer, **innovation**, information exchange and networks, and marketing;

ARTICLE 80

Energy

(...) 3. The Parties agree to cooperate in the following areas:

- (...) (g) **technology** development and transfer, Research and Development, **innovation**, information exchange, development of databases and networks; and

ARTICLE 81

Information and Communications **Technologies** (ICT)

1. Cooperation in the ICT sector shall include: the development of ICT, competitiveness, **innovation**, as well as the smooth transition towards the information society.

(...) 3. The Parties agree to cooperate in the following areas:

- (d) **technology** development, transfer and applications, R&D, **innovation**, information exchange and networks, and marketing;

- (l) Technical Support Services
i. strengthening of [innovation](#) and transfer of [technology](#), knowledge, R&D; (...)

TITLE V
WATER AND ENVIRONMENT
ARTICLE 91

Water Resources

3. The Parties agree to cooperate in the following areas:

- (...) (f) promotion of [technology](#) development, transfer and applications, R&D, [innovation](#), information exchange and networks;

ARTICLE 92

Environment

(...) 2. The objectives of cooperation in this area are to:

- (...) (c) promote [technology](#) development, transfer and application, research and development, [innovation](#) and information exchange.

(...) 3. The Parties agree to cooperate in the following areas:

- (f) promotion of [technology](#) development and adaptation, transfer and applications, R&D, and [innovation](#);

131. United Kingdom – Moldova RTA (in force since 01 Jan. 2021):

“CHAPTER 10
INDUSTRIAL AND ENTERPRISE POLICY

(...) ARTICLE 59

To those ends, the Parties shall cooperate in order to:

- (...) (d) encourage the development of [innovation](#) policy, via the exchange of information and good practice regarding the commercialisation of research and development (including support instruments for [technology](#)-based business start-ups), cluster development and access to finance;

CHAPTER 16
ENVIRONMENT

(...) ARTICLE 79

Cooperation shall aim at preserving, protecting, improving, and rehabilitating the quality of the environment, protecting human health, sustainable utilisation of natural resources and promoting measures at the international level to deal with regional or global environmental problems, including in the areas of:

- (...) (n) eco-[innovation](#) including best available [technologies](#).

CHAPTER 19
TOURISM

(...) ARTICLE 94

Cooperation shall focus on the following topics:

- (a) exchange of information, best practices, experience and ‘know-how’ transfer, including on [innovative technologies](#);

CHAPTER 24
COOPERATION IN RESEARCH, [TECHNOLOGICAL](#) DEVELOPMENT AND DEMONSTRATION

ARTICLE 109

The Parties may promote cooperation in all areas of civil scientific research and [technological](#) development and demonstration (RTD) on the basis of mutual benefit and subject to appropriate and effective protection of intellectual property rights.

CHAPTER 16
ENVIRONMENT

(...) ARTICLE 80

The Parties shall, inter alia:

- (a) exchange information and expertise;
- (b) cooperate in joint research activities and exchange of information on cleaner **technologies**; (...)

CHAPTER 17
CLIMATE ACTION
ARTICLE 84

Cooperation may promote measures at the domestic, regional and international level, including in the areas of:

- (a) mitigation of climate change;
- (b) adaptation to climate change;
- (c) carbon trading;
- (d) research, development, demonstration, deployment and diffusion of safe and sustainable low-carbon and adaptation **technologies**;
- (e) mainstreaming of climate considerations into sector policies; and
- (f) awareness raising, education and training.

ARTICLE 85

The Parties may, inter alia:

- (a) exchange information and expertise;
- (b) implement joint research activities and exchanges of information on cleaner **technologies**; (...)"

132. United Kingdom – SACU²⁵⁷ and Mozambique RTA (entered into force on 29 Jan. 2021):

“ARTICLE 13

Cooperation priorities

(...) 3. Cooperation in supply-side competitiveness shall aim at increasing the competitiveness of the SACU Member States and Mozambique and remove supply side constraints at national, institutional and, in particular, at company level. This cooperation includes, amongst others, fields such as production, **technology** development and **innovation**, marketing, financing, distribution, transport, diversification of economic base, as well as development of the private sector, improvement of the trade and business environment and support to small and medium enterprises in the fields of agriculture, fisheries, industry and services.”

133. United Kingdom – Ukraine RTA (in force since 01 Jan. 2021):

“CHAPTER 10
INDUSTRIAL AND ENTERPRISE POLICY
(...) ARTICLE 351

To that end, the Parties shall cooperate in order to:

(...) (d) encourage the development of **innovation** policy, via the exchange of information and good practice regarding the commercialisation of research and development (including support instruments for **technology**-based business start-ups), cluster development and access to finance;

CHAPTER 16
TOURISM
(...) ARTICLE 367

Cooperation will focus, inter alia, on the following aspects:

(a) exchange of information, best practices, experience and "know-how" transfer, including on **innovative technologies**;

(...) TITLE V

²⁵⁷ According to the WTO RTAs Database, SACU is comprised of: Botswana; Lesotho; Namibia; South Africa; Eswatini.

ECONOMIC AND SECTOR COOPERATION

CHAPTER 6

ENVIRONMENT

(...) ARTICLE 339

1. The Parties shall, inter alia:

(a) exchange information and expertise;

(b) implement joint research activities and exchange of information on cleaner **technologies**;

CHAPTER 9

COOPERATION IN SCIENCE AND **TECHNOLOGY**

ARTICLE 347

The Parties shall develop and strengthen their scientific and **technological** cooperation in order to contribute both to scientific development itself, and to reinforce their scientific potential for contributing to the resolution of national and global challenges. The Parties shall endeavour to contribute to progress in acquiring scientific and **technological** knowledge relevant to sustainable economic development, by strengthening their research capacities and human potential. The sharing and pooling of scientific knowledge will contribute to the competitiveness of the Parties, by increasing the ability of their economies to generate and use knowledge to commercialise new products and services. Finally, the Parties will develop their scientific potential in order to fulfil their global responsibilities and commitments in areas such as health-related issues, environmental protection including climate change and other global challenges.

ARTICLE 348

Cooperation shall assist Ukraine in reforming and reorganising its science management system and research institutions (including boosting its capacity for research and **technological** development), in order to support the development of a competitive economy and knowledge society.

ARTICLE 349

Cooperation shall take place particularly through:

(a) exchange of information on each other's science and **technology** policies;

(b) joint implementation of scientific programmes and research activities;

(c) joint research and development activities aimed at encouraging scientific progress and the transfer of **technology** and know-how;

(d) training through mobility programmes for researchers and specialists;

(e) the organisation of joint scientific and **technological** development events/measures; (...)"

5.2.2.4 *In electronic commerce and/or digital trade provisions*

The selected excerpts of the 16 RTAs abovementioned are transcribed below for ease of reference, in chronological order by date of entry into force.

1. Thailand - Australia (in force since 01 Jan. 2005):

“CHAPTER 11

ELECTRONIC COMMERCE

ARTICLE 1104

Electronic Authentication and Digital Certificates

Each Party shall maintain domestic legislation for electronic authentication that:

(a) permits parties to electronic transactions to determine the appropriate authentication **technologies** and implementation models for their electronic

transactions, without limiting the recognition of such **technologies** and implementation models; and
(b) permits parties to electronic transactions to have the opportunity to prove in court that their electronic transactions comply with any legal requirements.”

2. China – New Zealand RTA (01 Oct. 2008):

“APPENDIX 6

NEW CHAPTER 19 (ELECTRONIC COMMERCE)

(...) Article 7 Electronic Authentication, Signature and Digital Certificates

1. Except in circumstances otherwise provided for under its domestic laws and regulations, a Party shall not deny the legal validity of a signature solely on the basis that the signature is in electronic form.

2. Taking into account international norms for electronic authentication, each Party shall:

- permit participants in electronic transactions to determine appropriate electronic authentication **technologies** and implementation models for their electronic transactions;

- not limit the recognition of electronic authentication **technologies** and implementation models for electronic transactions; and

- permit participants in electronic transactions to have the opportunity to prove that their electronic transactions comply with its domestic laws and regulations with respect to authentication.”

3. China – Singapore RTA (in force since 01 Jan. 2009):

“CHAPTER 15 ELECTRONIC COMMERCE

(...) ARTICLE 4

Electronic Authentication and Electronic Signatures

(...) 2. Each Party shall maintain or adopt, as soon as practicable, measures for electronic authentication that:

(a) permit participants in electronic transactions to determine the appropriate authentication **technologies** for their electronic transactions;

(b) permit participants in electronic transactions to have the opportunity to prove before judicial or administrative authorities that their electronic transactions comply with the Party’s domestic laws and regulations with respect to authentication.”

4. Chile – Australia RTA (in force since 09 Mar. 2009):

“Chapter 16 - Electronic Commerce

(...) Article 16.5: Domestic Electronic Transactions Frameworks

1. Each Party shall adopt or maintain measures regulating electronic transactions based on the following principles:

(a) a transaction including a contract shall not be denied legal effect, validity or enforceability solely on the grounds that it is in the form of an electronic communication; and

(b) laws should not discriminate arbitrarily between different forms of **technology**.

Article 16.6: Electronic Authentication

(...) 3. Each Party shall adopt or maintain measures regulating electronic authentication that:

(a) permit parties who take part in a transaction or contract by electronic means to determine the appropriate authentication technologies and implementation models, and do not limit the recognition of such **technologies** and implementation models, unless there is a domestic or international legal requirement to the contrary; and

(b) permit parties who take part in a transaction or contract by electronic means to have the opportunity to prove in court that their electronic transactions comply with any legal requirement.”

5. Japan – Switzerland (Panama – Central America) RTA (in force since 01 Sep. 2009):

“Chapter 8
Electronic Commerce
Article 71
General Provisions
(...) 2. The Parties recognise the principle of **technological** neutrality in the sense that any provisions related to trade in services do not distinguish between the different **technological** means through which a service may be supplied.”

6. ASEAN – Australia – New Zealand RTA (in force since 01 Jan. 2010):

“CHAPTER 10 ELECTRONIC COMMERCE
(...) Article 5
Electronic Authentication and Digital Certificates
1. Each Party shall maintain, or adopt as soon as practicable, measures based on international norms for electronic authentication that:
(a) permit participants in electronic transactions to determine the appropriate authentication **technologies** and implementation models for their electronic transactions; (...)”

7. Canada – Colombia RTA (in force since 15 Aug. 2011):

“Chapter Fifteen - Electronic Commerce
(...) Article 1507: Cooperation
(...) 2. Parties may work together through various means, including through information and communication **technologies**, face to face meetings or a working group of experts to further the objectives of this Chapter, in particular Articles 1504, 1506 and 1507.”

8. Canada – Jordan RTA (in force since 01 Oct. 2012):

“Chapter 3: Electronic Commerce
Article 3-1 Customs Duties on Products Delivered by Electronic Means
1. A Party shall not apply customs duties on products delivered electronically.
2. For greater certainty, this Article does not preclude a Party from imposing internal taxes or other internal charges on products delivered electronically, provided that such taxes or charges are imposed in a manner consistent with this Agreement.
3. For purposes of this Article, delivered electronically means delivered through telecommunications, alone or in conjunction with other information and communications **technologies**.”

9. Malaysia – Australia RTA (in force since 01 Jan. 2013):

“CHAPTER 15
ELECTRONIC COMMERCE
Article 15.6
Electronic Authentication and Digital Certificates
1. Each Party shall maintain measures for electronic authentication that permit Parties to electronic transactions to:
(a) determine the appropriate authentication **technologies** and implementation models for their electronic transactions, and do not limit the recognition of such **technologies** and implementation models; and
(b) have the opportunity to prove that their electronic transactions comply with the Party’s laws and regulations.”

10. New Zealand – Chinese Taipei RTA (in force since 01 Dec. 2013):

“Article 2 Promotion of E-Commerce

1. The Parties agree to:

(...) (c) endeavour to ensure that policy responses in respect of e- commerce:

(i) are flexible and take account of developments in a rapidly changing **technology** environment; (...)

(...) (d) work to build consumer and business confidence in support of the wider utilisation of e-commerce between the Parties and globally by:

(i) maintaining privacy protection laws and consumer laws relating to e-commerce;

(ii) maintaining measures to minimise unsolicited commercial electronic messages; and

(iii) ensuring the protection of intellectual property rights, while also enabling the application of e-commerce and business **innovation**.”

11. Australia – Japan RTA (in force since 15 Jan. 2015):

“CHAPTER 13

ELECTRONIC COMMERCE

Article 13.1

Basic Principles

1. The Parties recognise the economic growth and opportunities provided by electronic commerce and the importance of avoiding unnecessary barriers to its use and development.

2. The aim of this Chapter is to contribute to creating an environment of trust and confidence in the use of electronic commerce and to promote electronic commerce between the Parties and the wider use of electronic commerce globally.

3. The Parties recognise the principle of **technological** neutrality in electronic commerce.

Article 13.5

Domestic Regulation

(...) 2. Neither Party shall adopt or maintain measures regulating electronic transactions that:

(a) deny the legal effect, validity or enforceability of a transaction, including a contract, solely on the grounds that it is in the form of an electronic communication; or

(b) discriminate between different forms of **technology**, unless such measures are provided for in its laws and regulations and are administered in a reasonable, objective and impartial manner.”

12. Mexico – Panama RTA (in force since 01 Jul. 2015):

“CAPÍTULO 14

COMERCIO ELECTRÓNICO

(...) Artículo 14.3: Disposiciones Generales

(...) 2. Considerando el potencial del comercio electrónico como un instrumento de desarrollo social y económico, las Partes reconocen la importancia de:

(...) c) la compatibilidad **tecnológica**, la **innovación** y la competencia para facilitar el comercio electrónico;”

13. Japan – Mongolia RTA – Implementation Agreement (in force since 07 Jun. 2016):

“Chapter 9 Electronic Commerce

Article 9.1 General Provisions

1. The Parties recognize the economic growth and opportunities provided by electronic commerce, and the importance of avoiding unnecessary barriers to its use and development.

2. The objective of this Chapter is to contribute to creating an environment of trust and confidence in the use of electronic commerce and to promote electronic commerce between the Parties and the wider use of electronic commerce globally.

3. The Parties recognize the principle of **technological** neutrality in electronic commerce.
4. In the event of any inconsistency between this Chapter and Chapter 2, 7, 10 or 12, the Chapter other than this Chapter shall prevail to the extent of the inconsistency.”

14. Eurasian Economic Union (EAEU) - Viet Nam RTA (in force since 05 Oct. 2016):

“ CHAPTER 13
ELECTRONIC **TECHNOLOGIES** IN TRADE
ARTICLE 13.6
Cooperation on Electronic **Technologies** in Trade

1. The Parties shall exchange information and experience with regard to laws and regulations and programmes in the field of electronic **technologies** in trade, in particular with regard to private data protection and improvement of consumer confidence. »

15. United Kingdom – Iceland, Liechtenstein and Norway RTA (in force since 01 Dec. 2021):

“CHAPTER 4
DIGITAL TRADE
(...) ARTICLE 4.17
Emerging **Technology** Dialogue

The Parties recognise the importance of:

- (a) emerging **technology** as a contributor to economic growth and quality of life;
- (b) developing standards relating to emerging **technology**;
- (c) promoting public trust in the development and use of emerging **technology**;
- (d) facilitating and promoting investment in emerging **technology** research and development;
- (e) training workforces to use emerging **technology**; and
- (f) collaboration between government and non-governmental entities in relation to the development, use and regulation of emerging **technology**.

The Parties shall establish a strategic dialogue on emerging **technology** (Dialogue), which shall meet as decided by the Parties. The Parties shall, through the Dialogue, endeavour to:

- (a) cooperate on issues and developments relating to emerging **technology**, such as ethical use, human diversity and unintended biases, technical standards and algorithmic transparency;
- (b) exchange information, and share experiences and best practices on laws, regulations, policies, enforcement and compliance relating to emerging **technology**;
- (c) promote collaboration between government and non-governmental entities of the Parties in relation to investment, research and development opportunities in emerging **technology**;
- (d) promote the involvement of non-governmental persons or groups in the Dialogue; and
- (e) discuss any other matter related to this Article they consider appropriate.”

16. India – United Arab Emirates RTA (entered into force in 22 Sep. 2022):

“CHAPTER 9 DIGITAL TRADE
(...) ARTICLE 9.17
Digital and Electronic Payments

Recognising the rapid growth of digital and electronic payments, in particular those provided by non-bank, non-financial institutions and financial **technology** enterprises, the Parties shall endeavour to support the development of efficient, safe and secure cross-border digital and electronic payments by:

- (a) promoting interoperability and the interlinking of digital electronic payment infrastructures;

- (b) encouraging innovation and competition in digital and electronic payments services;
- (c) facilitate the use of open platforms and architectures such as tools and protocols provided for through Application Programming interfaces (APIs) and encourage payment service providers to safely and securely make APIs for their products and services available to third parties, where possible, to facilitate greater interoperability, innovation and competition in electronic payments; and
- (d) facilitate innovation and competition and the introduction of new financial and electronic payment products and services in a timely manner, such as through adopting regulatory and industry sandboxes.”

5.2.2.5 *In environmental provisions*

The selected excerpts of the 24 RTAs abovementioned are transcribed below for ease of reference, in chronological order by date of entry into force.

1. EU – Israel RTA (in force since 01 Jun. 2000):

“Article 50
Environment
(...) 2. Cooperation shall focus, in particular, on:
(...) promotion of programmes. joint technological and research programmes.”

2. East African Community (EAC) RTA (Goods: in force since 07 Jul. 2000; Services: 01 Jul. 2010):

“CHAPTER NINETEEN: CO-OPERATION IN ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT
ARTICLE 112 – Management of the Environment
(...) 2. For purposes of paragraph 1 of this Article, the Partner States undertake to:
(...) (f) promote the use of non-ozone depleting substances and environment- friendly technologies;
(...) (i) exchange information on atmospheric, industrial and other forms of pollution and conservation technology.”

3. EU – Chile RTA (Goods: in force since 01 Feb. 2003; Services: in force since 01 Mar. 2005):

“Article 28
Cooperation on the environment
(...) (e) exchanges of information, technology and experience in areas including environmental standards and models, training and education;”

4. Japan – Mexico RTA (in force since 01 Apr. 2005):

“Article 147
Cooperation in the Field of Environment
1. The Parties, recognizing the need for environmental preservation and improvement to promote sound and sustainable development, shall cooperate in the field of environment. Cooperative activities under this Article may include:
(a) exchange of information on policies, laws, regulations and technology related to the preservation and improvement of the environment, and the implementation of sustainable development; (...)”

5. Dominican Republic - Central America - United States Free Trade Agreement (CAFTA-DR) RTA (in force since 01 Mar. 2006):

“Annex 17.9 Environmental Cooperation

(...) 2. Recognizing the benefits that would be derived from a framework to facilitate effective cooperation, the Parties negotiated the ECA. The Parties expect that the ECA will enhance their cooperative relationship, noting the existence of differences in the Parties’ respective natural endowments, climatic and geographical conditions, and economic, **technological**, and infrastructure capabilities.

3. As set forth in Article V of the ECA, the Parties have identified the following priorities for environmental cooperation activities:

(...) (g) facilitating **technology** development and transfer and training to promote the use, proper operation, and maintenance of clean production **technologies;**”

6. Japan - Indonesia (in force since 01 Jul. 2008):

“Article 102

Environmental Aspects

(...) 2. Each Party shall:

(a) take account of environmental considerations, in accordance with its laws and regulations, throughout the process of formulation and implementation of its policy on energy and mineral resources;

(b) encourage favourable conditions for the transfer and dissemination of **technologies** that contribute to the protection of environment, consistent with the adequate and effective protection of intellectual property rights; and

(c) promote public awareness of environmental impacts of activities related to energy and mineral resources and of the scope for and the costs associated with the prevention or abatement of such impacts.”

7. Brunei Darussalam - Japan (in force since 31 Jul. 2008):

“Article 93

Environmental Aspects

(...) 2. Each Party shall:

(...) (b) encourage favourable conditions for the transfer and dissemination of **technologies** that contribute to the protection of environment, consistent with the adequate and effective protection of intellectual property rights; and”

8. EU – CARIFORUM States²⁵⁸ RTA (in force since 29 Dec. 2008):

“Article 138

Cooperation on eco-**innovation** and renewable energy

(...) 2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:

(a) projects related to environmentally-friendly products, **technologies**, production processes, services, management and business methods, including those related to appropriate water-saving and Clean Development Mechanism applications;

CHAPTER 4

Environment

Article 183

Objectives and sustainable development context

(...) 5. The Parties and the Signatory CARIFORUM States are resolved to make efforts to facilitate trade in goods and services which the Parties consider to be beneficial to

²⁵⁸ According to the WTO RTAs Database, the CARIFORUM States at that point of time were: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

the environment. Such products may include environmental **technologies**, renewable- and energy-efficient goods and services and eco-labelled goods.”

9. United States – Peru RTA (in force since 01 Feb. 2009):

“Chapter Eighteen Environment

Article 18.10: Environmental Cooperation

1. The Parties recognize the importance of strengthening their capacity to protect the environment and of promoting sustainable development in concert with strengthening their trade and investment relations.

2. The Parties are committed to expanding their cooperative relationship on environmental matters, recognizing it will help them achieve their shared environmental goals and objectives, including the development and improvement of environmental protection, practices, and **technologies**.”

10. Japan – Switzerland (Panama – Central America) RTA (in force since 01 Sep. 2009):

“Article 9

Promotion of Trade in Environmental Products and Environment-Related Services

1. The Parties shall encourage trade and dissemination of environmental products and environment-related services in order to facilitate access to **technologies** and products that support the environmental protection and development goals, such as improved sanitation, pollution prevention, sustainable promotion of renewable energy and climate-change-related goals.”

11. EU – Eastern and Southern Africa States²⁵⁹ RTA (in force since 14 May 2012):

“TITLE IV

Natural resources and environment

(...) Article 50

Water resources

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (f) **technology** development, transfer and applications, R&D, **innovation**, information exchange and networks;

Article 51

Environment

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (h) **technology** development and adaptation, transfer and applications, R&D and **innovation**.”

12. United States – Colombia RTA (in force since 15 May 2012):

“Chapter 18: Environment

Article 18.10: Environmental Cooperation

(...) 2. The Parties are committed to expanding their cooperative relationship on environmental matters, recognizing it will help them achieve their shared environmental goals and objectives, including the development and improvement of environmental protection, practices, and **technologies**.”

²⁵⁹ According to the WTO RTAs Database, the Eastern and Southern Africa States abovementioned are: Mauritius; Seychelles; Zimbabwe.

13. EFTA – Hong Kong RTA (in force since 01 Oct. 2012):

“ARTICLE 8.6

Promotion of Trade and Investment Beneficial to the Environment

1. The Parties will strive to facilitate and promote investment, trade in and dissemination of goods and services beneficial to the environment, including environmental **technologies**, sustainable renewable energy, energy efficient and eco-labelled goods and services, as well as to address non-tariff trade barriers for such goods and services.

(...)

3. The Parties will facilitate as appropriate co-operation between enterprises in relation to goods, services and **technologies** that contribute to sustainable development and are beneficial to the environment.”

14. EU - Colombia, Ecuador and Peru RTA (in force since 01 Mar. 2013):

“TITLE IX

TRADE AND SUSTAINABLE DEVELOPMENT

Article 275

Climate Change

(...) 4. Considering the global objective of a rapid transition to low-carbon economies, the Parties will promote the sustainable use of natural resources and will promote trade and investment measures that promote and facilitate access, dissemination and use of best available **technologies** for clean energy production and use, and for mitigation of and adaptation to climate change.

5. The Parties agree to consider actions to contribute to achieving climate change mitigation and adaptation objectives through their trade and investment policies, inter alia by:

(a) facilitating the removal of trade and investment barriers to access to, **innovation**, development, and deployment of goods, services and **technologies** that can contribute to mitigation or adaptation, taking into account the circumstances of developing countries;”

15. Costa Rica – Singapore RTA (01 Jul. 2013):

“Article 14.8: Environmental Cooperation

(...) 2. The Parties recognize the importance of strengthening capacities to protect the environment and to promote sustainable development, in accordance with their efforts of strengthening their trade and investment relations. Accordingly, the Parties agree to cooperate on environmental matters of mutual interest and benefit, taking into account their national priorities and available resources. Cooperative activities may be in areas including, but not limited to, the promotion of:

(a) green markets and clean **technologies**; and

(b) sustainable environmental management.”

16. EU – Central America²⁶⁰ RTA (in force since 01 Aug. 2013):

“PART II

POLITICAL DIALOGUE

(...) Article 20

Environment

(...) 2. This dialogue shall be aimed, inter alia, at fighting the threat of climate change, biodiversity conservation, the protection and sustainable management of forests to, inter alia, reduce emissions from deforestation and forest degradation, the protection of hydro and marine resources, basins and wetlands, the research and development of

²⁶⁰ According to the WTO RTAs Database, the signatories parties from Central America are: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

alternative fuels and renewable energy **technologies** and the reform of environmental governance in view of increasing its efficiency.

TITLE V

ENVIRONMENT, NATURAL DISASTERS AND CLIMATE CHANGE

Article 50

Cooperation on Environment

(...) 4. Cooperation may involve measures such as:

(b) transfer and use of sustainable **technology** and know-how, including creation of incentives and mechanisms for **innovation** and environmental protection;”

17. Switzerland – China RTA (in force since 01 Jul. 2014):

“ARTICLE 12.3

Promotion of the Dissemination of Goods and Services Favouring the Environment

1. The Parties shall strive to facilitate and promote investment and dissemination of goods, services, and **technologies** beneficial to the environment.

2. For the purpose of paragraph 1, the Parties agree to exchange views and will consider cooperation in this area.

3. The Parties shall encourage cooperation between enterprises in relation to goods, services and **technologies** that are beneficial to the environment.”

18. EU – Georgia RTA (in force since 01 Sep. 2014):

“CHAPTER 3

Environment

Article 301

The Parties shall develop and strengthen their cooperation on environmental issues, thereby contributing to the long-term objective of sustainable development and greening the economy. It is expected that enhanced environment protection will bring benefits to citizens and businesses in Georgia and in the EU, including through improved public health, preserved natural resources, increased economic and environmental efficiency, as well as use of modern, cleaner **technologies** contributing to more sustainable production patterns. Cooperation shall be conducted considering the interests of the Parties on the basis of equality and mutual benefit, as well as taking into account the interdependence existing between the Parties in the field of environment protection, and multilateral agreements in the field.

Article 308

Cooperation shall aim at mitigating and adapting to climate change, as well as promoting measures at international level, including in the areas of:

(...) (d) research, development, demonstration, deployment and diffusion of safe and sustainable low carbon and adaptation **technologies**, and (...)

Article 309

The Parties shall, inter alia, exchange information and expertise; implement joint research activities and exchange of information on cleaner **technologies**; implement joint activities at regional and international level, including with regard to multilateral environment agreements ratified by the Parties and joint activities in the framework of relevant agencies as appropriate. The Parties shall pay special attention to transboundary issues and regional cooperation.

Article 310

Based on mutual interests, the cooperation shall cover, inter alia, the development and implementation of: (a) national Adaptation Plan of Action (NAPA);

(b) Low Emissions Development Strategy (LEDS), including nationally appropriate mitigation actions;

(c) measures to promote **technology** transfer on the basis of **technology** needs assessment;

(d) measures related to ozone-depleting substances and fluorinated greenhouse gases.”

19. EU – Moldova RTA (in force since 01 Sep. 2014):

“CHAPTER 16

Environment

(...) Article 89

The cooperation shall cover, inter alia, the following objectives:

(a) development of an overall strategy on the environment, covering planned institutional reforms (with timetables) for ensuring implementation and enforcement of environmental legislation; division of competence for the environmental administration at national, regional and municipal levels; procedures for decision making and the implementation of decisions; procedures for the promotion of the integration of the environment into other policy areas; promotion of green economy measures and eco-[innovation](#), identification of the necessary human and financial resources and a review mechanism; and

(b) development of sector strategies on air quality; water quality and resource management; waste and resource management; biodiversity and nature protection; industrial pollution and industrial hazards and chemicals, noise pollution, soil protection, urban and rural environment, eco-[innovation](#) including clearly defined timetables and milestones for implementation, administrative responsibilities, as well as financing strategies for investments for infrastructure and [technology](#).”

20. Korea – Australia RTA (in force since 12 Dec. 2014):

“Chapter 18 - Environment

ARTICLE 18.4: TRADE FAVOURING ENVIRONMENT

Each Party shall endeavour to facilitate and promote trade and investment in environmental goods and services, including environmental [technologies](#), sustainable renewable energy, and energy efficient goods and services, including through addressing related non-tariff barriers.”

21. EU – Armenia RTA (in force since 01 Jun. 2018):

“CHAPTER 3

Environment

(...) Article 48

The cooperation shall cover, inter alia, the following objectives:

(a) the development of a general national environmental strategy for the Republic of Armenia, covering:

(v) the promotion of green economy measures and eco-[innovation](#), the identification of the necessary human and financial resources and a review mechanism; and (...)

CHAPTER 4

Climate action

Article 52

Cooperation shall promote measures at domestic, regional and international level, including with regard to:

(...) (d) research into and the development, demonstration, deployment, transfer and diffusion of new, [innovative](#), safe and sustainable low-carbon and adaptation [technologies](#).”

22. United Kingdom - Eastern and Southern Africa States²⁶¹ RTA (in force since 01 Jan. 2021):

“ARTICLE 49

²⁶¹ According to the WTO RTAs Database, the signatories to this RTA are: Mauritius; Seychelles; Zimbabwe.

Water resources

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (f) **technology** development, transfer and applications, R&D, **innovation**, information exchange and networks;

ARTICLE 50

Environment

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (h) **technology** development and adaptation, transfer and applications, R&D and **innovation**;"

23. United Kingdom - Kenya RTA (in force since 01 Jan. 2021):

"TITLE V

WATER AND ENVIRONMENT

ARTICLE 91

Water Resources

3. The Parties agree to cooperate in the following areas:

(...) (f) promotion of **technology** development, transfer and applications, R&D, **innovation**, information exchange and networks;

ARTICLE 92

Environment

(...) 2. The objectives of cooperation in this area are to:

(...) (c) promote **technology** development, transfer and application, research and development, **innovation** and information exchange.

(...) 3. The Parties agree to cooperate in the following areas:

(f) promotion of **technology** development and adaptation, transfer and applications, R&D, and **innovation**;"

24. United Kingdom - Moldova RTA (in force since 01 Jan. 2021):

"CHAPTER 16

ENVIRONMENT

(...) ARTICLE 79

Cooperation shall aim at preserving, protecting, improving, and rehabilitating the quality of the environment, protecting human health, sustainable utilisation of natural resources and promoting measures at the international level to deal with regional or global environmental problems, including in the areas of:

(...) (n) eco-**innovation** including best available **technologies**."

5.2.2.6 In provisions on development or sustainable development

The selected excerpts of the 30 RTAs that mentioned "technology" or its variations in provisions on development or sustainable development are transcribed below for ease of reference, in chronological order by date of entry into force.

1. EU Overseas Countries and Territories (OCT) (in force since 01 Jan. 1971):

“Article 58

Sustainable development in trade

1. In the context of the association, the cooperation in the of field sustainable development may be pursued by:

(...) (b) facilitating the removal of obstacles to trade or investment regarding goods and services of particular relevance for climate change mitigation, such as sustainable renewable energy and energy efficient products and services, including through the adoption of policy frameworks conducive to the deployment of best available **technologies** and through the promotion of standards that respond to environmental and economic needs and minimise technical obstacles to trade;”

2. Caribbean Community and Common Market (CARICOM) – Protocol Amending the Treaty Establishing the Caribbean Community (Protocol III: Industrial Policy) (Goods: in force since 01 Aug. 1973; Services: in force since 04 Jul. 2002):

“ARTICLE VIII

Replace Article 44 with the following:

"Article 43 Research and Development

1. The COTED shall promote market-led research, **technological** development and adaptation of appropriate **technology** in the Community in order to support the production, on a sustainable basis, of goods and services in Member States with a view to diversifying such production and enhancing its international competitiveness.

2. In the discharge of its mandate set out in paragraph 1 of this Article, the COTED shall adopt measures to encourage, inter alia, inventions and **innovation**, and acquisition, transfer, assimilation, adaptation and diffusion of **technologies** in the Community. Without prejudice to the generality of the foregoing, the COTED shall: (...)

ARTICLE 64

Research and Development

1. COTED shall promote market-led research, **technological** development and adaptation of **technology** in the Community in order to support the production, on a sustainable basis, of goods and services in the Member States with a view to diversifying such production and enhancing its international competitiveness.

2. In the discharge of its mandate set out in paragraph 1 of this Article, COTED shall adopt measures to encourage, inter alia, inventions and **innovation**, and acquisition, transfer, assimilation, adaptation and diffusion of **technologies** in the Community. Without prejudice to the generality of the foregoing, COTED shall: (...)

ARTICLE VI

Insert new Article to read as follows:

"Article 48c

Human Resource Development

(...) 3. In performing the functions referred to in paragraph 2 of this Article, the Community shall collaborate with education and training institutions and relevant regional and international organizations in developing harmonized agricultural syllabuses, training materials and case studies in key areas of farming, fisheries and forestry utilizing distance education **technology** where appropriate."

ARTICLE VII

Insert new Article to read as follows:

"Article 48d

Research, Development and Use of **Technology**

1. The Community shall promote and encourage research and development, and the adaptation, diffusion and transfer of appropriate **technologies** in order to achieve increased production and productivity.

2. The Community shall, in collaboration with competent public and private sector research and development institutions, encourage and assist Member States:

- (a) to facilitate access to and use of new and appropriate **technologies** in the agricultural sector;
- (b) to develop:
 - (i) efficient systems for the generation and transfer of appropriate **technologies**; and
 - (ii) **technological** and institutional capabilities in the public and private sectors, compatible with competitive and sustainable agricultural production.

3. In the pursuit of its functions under this Article, the Community shall encourage the private sector to play a vital role in:

- (a) the development, adaptation and transfer of appropriate **technologies** in the agricultural sector; and
- (b) the development of producer associations as a basis for autonomous action and intra-regional transfer of **technologies** and research findings.

4. The Community shall co-operate with Member States and competent organizations to devise means of protecting, developing and commercializing local knowledge about the value and use of the Region's biodiversity for the benefit of their populations, especially their indigenous peoples.””

3. South Pacific Regional Trade and Economic Cooperation Agreement (SPARTECA) RTA (in force since 01 Jan. 1981):

“Industrial and agricultural development

6. The measures and programs within the fields of industrial development and the development of agriculture, forestry and fisheries referred to in paragraph 3 of this Article, may include those which contribute to:

- (a) investment in industries, including agro-based industries, with particular emphasis on those of a smaller or medium size;
- (b) the transfer of resources from Australia and New Zealand to the Forum Island countries through joint ventures and other commercial arrangements;
- (c) a greater degree of processing of raw materials produced in, and exported from, the Forum Island countries;
- (d) scientific and **technological** cooperation and training directed towards the acquisition, adaption and development by the Forum Island countries of skills essential to their industrial and agricultural development;”

4. Andean Community (CAN) RTA (in force since 25 May 1988):

“Chapter IV: Industrial Development Programs

Section C. On Industrial Integration Projects

Article 65. The Commission shall, at the General Secretariat’s proposal, approve Industrial Integration Projects, which shall be carried out with regard to specified products or product families, preferably new ones, through collective cooperation policies and with the participation of all of the Member Countries

In carrying out these Projects, the following tasks, among others, shall be performed:

- a. Feasibility and design studies;
- b. Supplying equipment, technical assistance, **technology**, and other goods and services, preferably of subregional origin;
- c. Support by the Andean Development Corporation through financing or through equity; and
- d. Joint negotiations with international entrepreneurs and government agencies to obtain foreign funds or the transfer of **technology**. (...)

Chapter VII: Agricultural Development Programs

Article 100. To fulfill the objectives stated in the previous article, the Commission, at the proposal of the General Secretariat, shall take the following steps, among others:

- a. To create an Andean System and National Systems of Food Security;
- b. Joint policies for agricultural and agroindustrial development by products or groups of products;

- c. Joint programs for agricultural and agroindustrial **technological** development, including policies for research, training, and the transfer of **technology**;
- d. Promotion of intra-subregional agricultural and agroindustrial trade and entering into agreements for supplying agricultural products;
- e. Joint programs and policies regarding agricultural and agroindustrial trade with third countries;
- f. Common rules and programs about vegetable and animal health;
- g. Creation of subregional funding mechanisms for the agricultural and agroindustrial sector;
- h. Joint policies for the use and preservation of the natural resources of the sector; and
- i. Joint cooperative policies in the fields of research and transfer of **technology** in areas of common interest for the Member Countries, such as genetics, floriculture, fishing, forestry, and those that the Commission determines in the future.”

5. EU – South Africa RTA (in force since 01 Jan. 2000):

“TITLE IV
 ECONOMIC COOPERATION
 (...) Article 53 – Trade development
 (...) 2. Cooperation in the field of trade development shall in particular focus on the following:
 (...) (d) know-how and **technology** transfer through investment and joint ventures;”

6. East African Community (EAC) RTA (Goods: in force since 07 Jul. 2000; Services: 01 Jul. 2010):

“CHAPTER 22: ENHANCING THE ROLE OF WOMEN IN SOCIO-ECONOMIC DEVELOPMENT
 ARTICLE 121
 The Role of Women in Socio-economic Development
 The Partner States recognise that women make a significant contribution towards the process of socio-economic transformation and sustainable growth and that it is impossible to implement effective programmes for the economic and social development of the Partner States without the full participation of women. To this end, the Partner States shall through appropriate legislative and other measures:
 (...) (d) create or adopt **technologies** which will ensure the stability of employment and professional progress for women workers; and”

7. Gulf Cooperation Council RTA (in force since 01 Jan. 2003):

“Chapter IV
 Development Integration
 (...) Article Twelve: Joint Projects
 For the purpose of enhancing ties between Member States in the productive sectors, utilizing economies of scale, achieving economic integration, and improving the distribution of integration benefits among them, Member States shall undertake the measures necessary to support, finance, and form joint projects, both private and public, including the following:
 1. Adopt integrated economic policies between the Member States for infrastructure projects and basic services such as transport; communications; electricity; information **technology**; health, education, and tourism projects; and oil and gas industry. (...)”

8. EU – CARIFORUM States²⁶² RTA (in force since 29 Dec. 2008):

“PART I
TRADE PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

(...) Article 8
Cooperation priorities

1. Development cooperation as provided for in Article 7 shall be primarily focused on the following areas as further articulated in the individual Chapters of this Agreement:
(...) (vi) The development of CARIFORUM innovation systems, including the development of technological capacity;

CHAPTER 4

Environment

Article 183

Objectives and sustainable development context

(...) 5. The Parties and the Signatory CARIFORUM States are resolved to make efforts to facilitate trade in goods and services which the Parties consider to be beneficial to the environment. Such products may include environmental technologies, renewable- and energy-efficient goods and services and eco-labelled goods.”

9. Australia – Chile RTA (in force since 09 Mar. 2009):

“Article 18.3:

Innovation, Research and Development

Cooperation in innovation, research and development will be focused on cooperative activities in sectors where mutual and complementary interests exist. Among other activities, the Parties will encourage the exchange of experts and information. Where appropriate, they will also promote partnerships in the support of the development of innovative products and services and activities to promote linkage, innovation and technology exchange.”

10. Chile – Colombia RTA (in force since 08 May 2009):

“Artículo 19.4: Cooperación en Innovación, Investigación y Desarrollo

1. Los objetivos de la cooperación en los ámbitos de la innovación, investigación y desarrollo, con especial referencia a la ciencia y tecnología, serán:

(a) fomentar, cuando sea apropiado, que las agencias gubernamentales, instituciones de investigación, universidades, empresas privadas y otras organizaciones de investigación en los respectivos países establezcan acuerdos directos para desarrollar las actividades de cooperación, programas y proyectos conjuntos dentro del marco del presente Acuerdo; y

(b) focalizar las actividades de cooperación hacia sectores donde existan intereses mutuos y complementarios.”

11. EFTA²⁶³ – Serbia RTA (in force since 01 Oct. 2010):

“CHAPTER 6 TRADE AND SUSTAINABLE DEVELOPMENT

(...) ARTICLE 38

Promotion of Trade and Investment Favouring Sustainable Development

1. The Parties shall strive to facilitate and promote foreign investment, as well as trade in and dissemination of goods and services beneficial to the environment, including through addressing related non-tariff barriers. This may further include the fostering

²⁶² According to the WTO RTAs Database, the CARIFORUM States in this case are: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Haiti; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

²⁶³ According to the WTO RTAs Database, EFTA is comprised of: Iceland; Liechtenstein; Norway; Switzerland.

of sound environmental **technology**, research, development and **innovation** in support of green economy, sustainable renewable energy, energy efficient and eco-labelled goods and services.

(...) 4. The Parties shall encourage cooperation between enterprises in relation to goods, services and **technologies** that contribute to sustainable development and are beneficial to the environment.”

12. EFTA – Albania RTA (in force since 01 Nov. 2010):

“ARTICLE 37

Promotion of Trade and Investment Favouring Sustainable Development

1. The Parties shall strive to facilitate and promote foreign investment, trade in and dissemination of goods and services beneficial to the environment, including environmental **technologies**, sustainable renewable energy, energy efficient and eco-labelled goods and services, including through addressing related non-tariff barriers.

(...) 4. The Parties shall encourage cooperation between enterprises in relation to goods, services and **technologies** that contribute to sustainable development and are beneficial to the environment.”

13. EU – Korea RTA (in force since 01 Jul. 2011):

“Article 13.6

Trade favouring sustainable development

(...) 2. The Parties shall strive to facilitate and promote trade and foreign direct investment in environmental goods and services, including environmental **technologies**, sustainable renewable energy, energy efficient products and services and eco-labelled goods, including through addressing related non-tariff barriers. The Parties shall strive to facilitate and promote trade in goods that contribute to sustainable development, including goods that are the subject of schemes such as fair and ethical trade and those involving corporate social responsibility and accountability.”

14. Chile – Malaysia RTA (in force since 25 Feb. 2012):

“CHAPTER 9 - COOPERATION

(...) Article 9.4: Research, Development and **Innovation**

Cooperation in **innovation**, research and development will be focused on cooperative activities in sectors where mutual and complementary interests exist. Where appropriate, they will also promote partnerships in the support of the development of **innovative** products and services and activities to promote linkage, **innovation** and **technology** exchange.”

15. EFTA – Montenegro RTA (in force since 01 Sept. 2012):

“CHAPTER 4

INVESTMENT, SERVICES AND GOVERNMENT PROCUREMENT

ARTICLE 37

Promotion of Trade and Investment Favouring Sustainable Development

1. The Parties shall strive to facilitate and promote foreign investment, trade in and dissemination of goods and services beneficial to the environment, including environmental **technologies**, sustainable renewable energy, energy-efficient and eco-labelled goods and services, including through addressing related non-tariff barriers.

(...) 4. The Parties shall encourage cooperation between enterprises in relation to goods, services and **technologies** that contribute to sustainable development and are beneficial to the environment.”

16. EU - Colombia, Ecuador and Peru RTA (in force since 01 Mar. 2013):

“TITLE IX
TRADE AND SUSTAINABLE DEVELOPMENT
Article 275 – Climate Change

(...) 5. The Parties agree to consider actions to contribute to achieving climate change mitigation and adaptation objectives through their trade and investment policies, inter alia by:

(a) facilitating the removal of trade and investment barriers to access to, [innovation](#), development, and deployment of goods, services and [technologies](#) that can contribute to mitigation or adaptation, taking into account the circumstances of developing countries;”

17. Korea – Türkiye RTA – Framework Agreement (Goods: in force since 01 May 2013; Services: in force since 01 Aug. 2018):

“CHAPTER 5
TRADE AND SUSTAINABLE DEVELOPMENT
ARTICLE 5.10: COOPERATION

(...) 2. In order to promote the achievement of the objectives of this Chapter and to assist in the fulfilment of their obligations pursuant to it, the Parties have established the following indicative list of areas of cooperation:

(...) (f) cooperation on trade-related aspects of the current and future international climate change regime, including issues relating to global carbon markets, ways to address adverse effects of trade on climate, as well as means to promote low-carbon [technologies](#) and energy efficiency;”

18. EU – Central America²⁶⁴ RTA (in force since 01 Aug. 2013):

“TITLE VIII
TRADE AND SUSTAINABLE DEVELOPMENT
(...) Article 288

Trade Favouring Sustainable Development

(...) 2. The Parties shall endeavour to:

(...) (b) facilitate and promote trade and foreign direct investment in environmental [technologies](#) and services, renewable-energy and energy-efficient products and services, including through addressing related non-tariff barriers;”

19. EFTA – Central America (Costa Rica and Panama) RTA (in force since 19 Aug. 2014):

“ARTICLE 9.7
Promotion of Trade and Investment Favouring Sustainable Development

1. The Parties shall strive to facilitate and promote foreign investment, trade in and dissemination of goods and services beneficial to sustainable development, including:
(a) environmental [technologies](#), sustainable renewable energy, organic production, energy efficient and eco-labelled goods and services, including through addressing related non-tariff barriers;

(b) goods and services that are the subject of schemes such as fair and ethical trade.

(...) 4. The Parties shall encourage corporate social responsibility, as well as cooperation between enterprises in relation to goods, services and [technologies](#) that contribute to sustainable development and are beneficial to the environment.”

20. EU – Ukraine RTA (in force since 23 Aug. 2014):

“Article 293
Trade favouring sustainable development

²⁶⁴ According to the WTO RTAs Database, the signatories parties from Central America are: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

(...) 2. The Parties shall strive to facilitate and promote trade and foreign direct investment in environmental goods, services and **technologies**, sustainable renewable-energy and energy-efficient products and services, and eco-labelled goods, including through addressing related non-tariff barriers.

CHAPTER 17

Agriculture and rural development

(...) Article 404

Cooperation between the Parties in the field of agriculture and rural development shall cover, inter alia, the following areas:

(...) (c) promoting modern and sustainable agricultural production, respectful of the environment and of animal welfare, including extension of the use of organic production methods and the use of **biotechnologies**, inter alia through the implementation of best practices in those fields; (...)

(...) (g) favouring **innovation** through research and promoting extension services to agricultural producers;”

21. EU – Moldova RTA (in force since 01 Sep. 2014):

“Article 375

Working together on trade and sustainable development

The Parties recognise the importance of working together on trade-related aspects of environmental and labour policies in order to achieve the objectives of Title V (Trade and Trade-related Matters) of this Agreement. They may cooperate in, inter alia, the following areas:

(...) (j) trade-related aspects of the current and future international climate change regime, including means to promote low-carbon **technologies** and energy efficiency;”

22. EFTA – Bosnia and Herzegovina RTA (in force since 01 Jan. 2015):

“CHAPTER 6

TRADE AND SUSTAINABLE DEVELOPMENT

ARTICLE 39

Promotion of Trade and Investment Favouring Sustainable Development

1. The Parties shall strive to facilitate and promote foreign investment, trade in and dissemination of goods and services beneficial to the environment, including environmental **technologies**, sustainable renewable energy, energy efficient and eco-labelled goods and services, including through addressing related non-tariff barriers.”

23. Türkiye – Malaysia RTA (in force since 01 Aug. 2015):

“Article 9.11

Cooperation in Research, Development and **Innovation**

Cooperation in research, development and **innovation** will be realized through cooperation activities in sectors where mutual and complementary interests exist.

Where possible, the Parties shall also encourage partnerships to develop innovative products and services as well as activities to promote linkage, **innovation** and **technology** exchange”.

24. Eurasian Economic Union (EAEU) - Viet Nam RTA (in force since 05 Oct. 2016):

“ SUSTAINABLE DEVELOPMENT

ARTICLE 12.5

Environmental and Labour Cooperation

(...) 2. The Parties shall endeavour to expand their cooperation in bilateral, regional, and multilateral fora on environmental and labour issues, recognising that such cooperation will help them achieve their shared environmental and labour goals and

objectives, including the development and improvement of environmental and labour protection, practices, and **technologies**. »

25. EFTA – Georgia RTA (in force since 01 Sept. 2017):

“CHAPTER 10
TRADE AND SUSTAINABLE DEVELOPMENT
ARTICLE 10.8

Promotion of Trade and Investment Favouring Sustainable Development

1. The Parties shall strive to facilitate and promote foreign investment, trade in and dissemination of goods and services beneficial to the environment, including environmental **technologies**, sustainable renewable energy, energy efficient and eco labelled goods and services. Related non-tariff barriers will be addressed as part of these efforts.

2. The Parties shall strive to facilitate and promote foreign investment, trade in and dissemination of goods and services that contribute to sustainable development, including goods and services that are the subject of schemes such as fair and ethical trade.

3. To this end, the Parties agree to exchange views and may consider, jointly or bilaterally, cooperation in this area.

4. The Parties shall encourage cooperation between enterprises in relation to goods, services and **technologies** that contribute to sustainable development and are beneficial to the environment.”

26. Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)²⁶⁵ (in force since 30 Dec. 2018):

“CHAPTER 23
DEVELOPMENT

(...) Article 23.5: Education, Science and **Technology**, Research and **Innovation**

1. The Parties recognise that the promotion and development of education, science and **technology**, research and **innovation** can play an important role in accelerating growth, enhancing competitiveness, creating jobs, and expanding trade and investment among the Parties.

2. The Parties further recognise that policies related to education, science and **technology**, research and **innovation** can help Parties maximise the benefits derived from this Agreement. Accordingly, Parties may encourage the design of policies in these areas that take into consideration trade and investment opportunities arising from this Agreement, in order to further increase those benefits. Those policies may include initiatives with the private sector, including those aimed at developing relevant expertise and managerial skills, and enhancing enterprises’ ability to transform **innovations** into competitive products and start-up businesses.

Article 23.6: Joint Development Activities

(...) 2. When mutually agreed, two or more Parties shall endeavour to facilitate joint activities between relevant government, private and multilateral institutions so that the benefits derived from this Agreement might more effectively advance each Party’s development goals. These joint activities may include:

(...) (b) consideration of ways to expand engagement in science, **technology** and research to foster the application of **innovative** uses of science and **technology**, promote development and build capacity;”

27. Peru – Australia RTA (in force since 11 Feb. 2020):

“CHAPTER 22
DEVELOPMENT

²⁶⁵ According to the WTO RTAs Database, the parties to the CTPP are: Australia; Brunei Darussalam; Canada; Chile; Japan; Malaysia; Mexico; New Zealand; Peru; Singapore; Viet Nam.

Article 22.3: Broad-Based Economic Growth

3. The Parties also recognise that generating and sustaining broad-based economic growth requires sustained high-level commitment by their governments to effectively and efficiently administer public institutions, invest in public infrastructure, welfare, health and education systems, and foster science, **technology**, **innovation** and entrepreneurship, and access to economic opportunity.

Article 22.5: Education, Science and **Technology**, Research and **Innovation**

1. The Parties recognise that the promotion and development of education, science and **technology**, research and **innovation** can play an important role in accelerating growth, enhancing competitiveness, creating jobs, and expanding trade and investment among the Parties.

2. The Parties further recognise that policies related to education, science and **technology**, research and **innovation** can help the Parties maximise the benefits derived from this Agreement. Accordingly, each Party may encourage the design of policies in these areas that take into consideration trade and investment opportunities arising from this Agreement, in order to further increase those benefits. Those policies may include initiatives with the private sector, including those aimed at developing relevant expertise and managerial skills, and enhancing enterprises' ability to transform **innovations** into competitive products and start-up businesses.”

28. EU – Vietnam RTA (in force since 01 Aug. 2020):

“CHAPTER 13

Trade and sustainable development

(...) Article 13.6

Climate Change

2. Within the UNFCCC framework, the Parties recognise the role of domestic policies in addressing climate change. Accordingly, the Parties shall consult and share information and experiences of priority or of mutual interest, including:

(...) (a) best practices and lessons learned in designing, implementing, and operating mechanisms for pricing carbon;

(b) the promotion of domestic and international carbon markets, including through mechanisms such as Emissions Trading Schemes and Reducing Emissions from Deforestation and Forest Degradation; and

(c) the promotion of energy efficiency, low-emission **technology** and renewable energy. (...)

Article 13.10

Trade and Investment Favouring Sustainable Development

1. Each Party affirms its commitment to enhance the contribution of trade and investment to the goal of sustainable development in its economic, social and environmental dimensions.

2. To that end, the Parties:

(a) recognise the beneficial role that decent work may have for economic efficiency, **innovation** and productivity, and they shall encourage greater policy coherence between trade policies, on the one hand, and labour policies on the other;

(b) shall endeavour to facilitate and promote trade and investment in environmental goods and services, in a manner consistent with this Agreement;

(c) shall endeavour to facilitate trade and investment in goods and services of particular relevance for climate change mitigation, such as sustainable renewable energy and energy efficient goods and services, including through the development of policy frameworks conducive to the deployment of best available **technologies**; (...)

Article 13.14

Working Together on Trade and Sustainable Development

1. The Parties, recognising the importance of working together on trade-related aspects of sustainable development in order to achieve the objectives of this Chapter, may work together in, inter alia, the following areas:

(...) (g) trade-related aspects of the current and future international climate change regime, including means to promote low carbon **technologies** and energy efficiency;”

29. EFTA – Türkiye RTA (in force since 01 Oct. 2021):

“ARTICLE 7.7

Promotion of Trade and Investment Favouring Sustainable Development

1. The Parties shall strive to facilitate and promote foreign investment, trade in and dissemination of goods and services beneficial to the environment, including sustainable construction materials, environmental **technologies**, sustainable renewable energy, energy efficient and eco-labelled goods and services, inter alia, through addressing related non-tariff barriers.
2. The Parties shall strive to facilitate and promote foreign investment, trade in and dissemination of goods and services that contribute to sustainable development, including goods and services that are the subject of schemes such as fair and ethical trade.
3. The Parties agree to exchange views and may consider cooperation, jointly or bilaterally, in this area.
4. The Parties shall encourage cooperation between enterprises in relation to goods, services and **technologies** that contribute to sustainable development and are beneficial to the environment.”

30. EFTA – Indonesia RTA (in force since 01 Nov. 2021):

“ARTICLE 8.4

Sustainable Economic Development

1. The Parties recognise that trade is an engine for inclusive economic growth and poverty reduction, and contributes to the promotion of sustainable development in all its dimensions.
2. The Parties shall strive to facilitate and promote investment, trade in, and dissemination of, goods and services that contribute to sustainable development, such as environmental **technologies**, sustainable renewable energy, as well as goods and services that are energy efficient or subject to voluntary sustainability schemes.
3. The Parties agree to exchange views and may consider, jointly or bilaterally, cooperation in this area.”

5.2.2.7 In provisions on trade barriers

The selected excerpts of the 11 RTAs that mentioned the term “technology” or its variations in provisions on trade barriers are transcribed below for ease of reference, in chronological order by date of entry into force.

1. Peru – Chile RTA (in force since 01 Mar. 2009):

“Capítulo 10

Obstáculos Técnicos al Comercio

(...) Reglamentos Técnicos

Artículo 10.6:

1. Los reglamentos técnicos no restringirán el comercio más de lo necesario para alcanzar un objetivo legítimo, teniendo en cuenta los riesgos que se crearían no alcanzarlos. Tales objetivos legítimos son entre otros: los imperativos de la seguridad nacional, la prevención de prácticas que puedan inducir a error; la protección de la salud o seguridad humana, de la vida o la salud animal o vegetal, o del medio

ambiente. Al evaluar esos riesgos, los elementos pertinentes a tomar en consideración son, entre otros: la información disponible científica y técnica, la **tecnología** de elaboración conexa o los usos finales a que se destinen las mercancías.”

2. Chile – Colombia RTA (in force since 08 May 2009):

“Capítulo 7 Obstáculos Técnicos al Comercio

(...) Artículo 7.6: Reglamentos Técnicos

1. Los reglamentos técnicos no restringirán el comercio más de lo necesario para alcanzar un objetivo legítimo, teniendo en cuenta los riesgos que se crearían al no alcanzarlos. Tales objetivos legítimos son entre otros: los imperativos de la seguridad nacional, la prevención de prácticas que puedan inducir a error; la protección de la salud o seguridad humana, de la vida o la salud animal o vegetal, o del medio ambiente. Al evaluar esos riesgos, los elementos pertinentes a tomar en consideración son, entre otros: la información disponible científica y técnica, la **tecnología** de elaboración conexa o los usos finales a que se destinen los productos.”

3. EU – Korea RTA (in force since 01 Jul. 2011):

“Article 13.6

ANNEX 2-C

MOTOR VEHICLES AND PARTS

(...) Article 6

Products with new **technologies** or new features

1. Neither Party shall prevent or unduly delay the placing on its market of a product on the ground that it incorporates a new **technology** or a new feature which has not yet been regulated unless it can demonstrate, based on scientific or technical information, that this new **technology** or new feature creates a risk for human health, safety or the environment.

2. When a Party decides to refuse the placing on the market or require the withdrawal from the market of a product on the ground that it incorporates a new **technology** or a new feature creating a risk for human health, safety or the environment, it shall immediately notify this decision to the other Party and to the economic operators concerned. The notification shall include all relevant scientific or technical information.”

4. New Zealand – Chinese Taipei RTA (in force since 01 Dec. 2013):

“CHAPTER 7 TECHNICAL BARRIERS TO TRADE

Article 3 Scope

(...) 4. For greater certainty, nothing in this Chapter shall prevent a Party from adopting or maintaining technical regulations, standards or conformity assessment procedures, in accordance with its rights and obligations under the TBT Agreement including those necessary to fulfil a legitimate objective taking into account the risks non-fulfilment would create. Such legitimate objectives are, inter alia: security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. In assessing such risks, relevant elements of consideration are, inter alia: available scientific and technical information, related processing **technology** or intended end-uses of products.”

5. Canada – Korea RTA (in force since 01 Jan. 2015):

“Chapter Six: Standards-Related Measures

(...) Article 6.7: Automotive Standards-Related Measures

(...) New **Technologies**

8. A Party shall not prevent or unduly delay the placing on its market of an automotive good on the ground that the good incorporates a new **technology** or a new feature which has not yet been regulated unless the Party demonstrates, at the request of the other

Party, based on scientific or technical information, that this new **technology** or new feature creates a risk for human health, safety, or the environment.

9. If a Party decides to refuse the placing on its market or require the withdrawal from its market of an automotive good on the ground that the good incorporates a new **technology** or a new feature creating a risk for human health, safety, or the environment, the Party shall immediately notify the other Party and the importer of the good of its decision. The notification shall include all relevant scientific or technical information.”

6. Canada – Ukraine RTA (in force since 01 Aug. 2017):

“Chapter 6: Sanitary and phytosanitary measures

(...) Article 6.4: Sanitary and Phytosanitary Issue Prevention and Resolution

1. The Parties shall work expeditiously to resolve any specific sanitary or phytosanitary trade-related matters. The Parties shall give priority to resolving sanitary and phytosanitary issues through discussion between regulatory officials.

2. The Parties shall avail themselves of every means to prevent and resolve issues, including the use of **technology** (such as teleconference or videoconference) and opportunities that may arise at international forums.

3. At the request of a Contact Point, the Parties shall meet as soon as possible to resolve any specific sanitary or phytosanitary trade-related matters. Unless the Parties decide otherwise, they shall meet within 45 days of the request, through the use of **technology** (such as teleconference or videoconference) or in person.”

7. Singapore – Türkiye RTA (in force since 01 Oct. 2017):

“CHAPTER 5

TECHNICAL BARRIERS TO TRADE

(...) ANNEX 5-A

ELECTRONICS

(...) Article 3

Innovation

1. No Party shall prevent or unduly delay the placing on its market of a product on the ground that it incorporates a new **technology** or a new feature which has not yet been regulated.

2. Paragraph 1 shall not prejudice the right of the importing Party, if it demonstrates duly substantiated concerns to the supplier, to require evidence that the new **technology** or new feature concerned does not create a risk for safety or EMC or any other legitimate objective as listed in Article 2.2 of the TBT Agreement.

ANNEX 5-B

MOTOR VEHICLES AND PARTS THEREOF

Article 4

Products with New **Technologies** or New Features

1. Neither Party shall prevent or unduly delay the placing on its market of a product covered by this Annex and approved by the exporting Party on the ground that the product incorporates a new **technology** or a new feature that the importing Party has not yet regulated, unless it can demonstrate, based on scientific or technical information, that this new **technology** or new feature creates a risk for human health, safety or the environment.

2. When a Party decides to refuse the placing on its market or requires the withdrawal from its market of a product of the other Party covered by this Annex on the ground that it incorporates a new **technology** or a new feature creating a risk for human health, safety or the environment, it shall immediately notify this decision to the other Party

and to the economic operators⁵ concerned. The notification shall include all relevant scientific or technical information considered in the Party’s decision.”

8. EU – Japan RTA (in force since 01 Feb. 2019):

“ANNEX 2-C
MOTOR VEHICLES AND PARTS
(...) ARTICLE 14
Products with new **technologies** or new features
A Party shall not prevent or unduly delay the placing on its market of a covered product on the ground that it incorporates a new **technology** or a new feature which has not yet been regulated unless there are duly substantiated risks to human health, safety or the environment. Each Party shall implement the relevant provisions of the 1958 Agreement relating to new **technologies**.”

9. Singapore – EU RTA (in force since 21 Nov. 2019):

“ANNEX 4-A
ELECTRONICS
ARTICLE 3
Innovation
1. No Party shall prevent or unduly delay the placing of a product on its market on the grounds that the product incorporates a new **technology** or a new feature which has not yet been regulated.
2. Paragraph 1 shall not prejudice the right of the importing Party, where it demonstrates duly substantiated concerns to the supplier of a product referred to in paragraph 1, to require evidence that the new **technology** or new feature concerned does not create a risk for safety or EMC or for any other legitimate objective as listed in Article 2.2 of the TBT Agreement.”

10. United States-Mexico-Canada Agreement (USMCA/CUSMA/T-MEC) (in force since 01 Jul. 2020):

“CHAPTER 12
SECTORAL ANNEXES
(...) ANNEX 12-A CHEMICAL SUBSTANCES
Article 12.A.4: Enhancing Regulatory Compatibility
(...) 2. The Parties also recognize the importance of developing and implementing measures in a manner that achieves their respective level of protection without creating unnecessary economic barriers or impediments to **technological innovation**.”

11. EU – Viet Nam RTA (in force since 01 Aug. 2020):

“ANNEX 2-B
MOTOR VEHICLES AND MOTOR VEHICLES PARTS AND EQUIPMENT
(...) Article 5
Products with New **Technologies** or New Features
1. Subject to its domestic legislation, a Party shall not unduly delay the placing on its market of parts and equipment referred to in subparagraphs 1(a) and 1(b) of Article 1 (General Provisions) of this Annex on the grounds that they incorporate a new **technology** or a new feature.
2. When a Party refuses the placing on its market, or requires the withdrawal from its market, of parts and equipment of the other Party referred to in subparagraphs 1(a) and 1(b) of Article 1 (General Provisions) of this Annex on the grounds that they incorporate a new **technology** or a new feature creating a risk for human health, safety or the environment, it shall immediately notify this decision and the reasons therefor to the economic operators concerned.”

5.2.2.8 In provisions on SMEs

The selected excerpts of the 7 RTAs that mention “technology” or its variations in provisions on SMEs are transcribed below for ease of reference, in chronological order by date of entry into force²⁶⁶.

1. Caribbean Community and Common Market (CARICOM) – Protocol Amending the Treaty Establishing the Caribbean Community (Protocol III: Industrial Policy) (Goods: in force since 01 Aug. 1973; Services: in force since 04 Jul. 2002):

“ARTICLE V

Replace Article 40 with the following:

"Article 40 Micro and Small Economic Enterprise Development

1. The Community shall adopt appropriate policy measures to encourage the development of competitive micro and small economic enterprises in Member States.
2. Without prejudice to the generality of the foregoing, the competent organ shall encourage policy initiatives and the establishment of effective programmes to foster a facilitative legal, economic, and administrative framework in Member States to enhance micro and small economic enterprise development, and shall promote:
 - (...) d. the establishment, development or modernising, as the case may require, of financial institutions to provide, to micro and small economic enterprises, services by way of appropriate and **innovative** instruments;
 - e. **innovation** within the micro and small enterprise sector; and
 - f. the creation of, and access to, trade and **technology** information networks.

REVISED TREATY OF CHAGUARAMAS ESTABLISHING THE CARIBBEAN COMMUNITY

INCLUDING THE CARICOM SINGLE MARKET AND ECONOMY

(...) ARTICLE 53

Micro and Small Economic Enterprise Development

1. The Community shall adopt appropriate policy measures to encourage the development of competitive micro and small economic enterprises in the Member States.
2. Without prejudice to the generality of the foregoing, the competent Organ shall encourage policy initiatives and the establishment of effective programmes to foster a facilitative legal, economic, and administrative framework in the Member States to enhance micro and small economic enterprise development, and shall promote:
 - (a) the development of the capacities of national and regional support agencies for micro and small economic enterprises, including the creation of entrepreneurial centres, by organising technical assistance inclusive of planning, delivery and evaluation of support services to the sector;
 - (b) access to, improvement in the quality of and opportunities for training and education in areas such as technical skills, entrepreneurial competence and business management for micro and small entrepreneurs;
 - (c) access by micro and small economic enterprises to the technical assistance provided by the support agencies;
 - (d) the establishment, development or modernising, as the case may require, of financial institutions to provide, to micro and small economic enterprises, services by way of appropriate and **innovative** instruments;
 - (e) **innovation** within the micro and small enterprise sector; and
 - (f) the creation of, and access to, trade and **technology** information networks.

²⁶⁶ In those cases in which the date of entry into force of the Goods section was different from the Services one, the date of entry into force of the Goods part was considered for the purposes of organization on chronological order.

3. For the purposes of this Article, micro and small economic enterprises shall be economic enterprises within the meaning of Article 32 that satisfy such other criteria as may be determined by the competent authorities.”

2. EU – South Africa RTA (in force since 01 Jan. 2000):

“TITLE IV

ECONOMIC COOPERATION

Article 54 – Micro-enterprises and small and medium-sized enterprises

The Parties shall aim to develop and strengthen micro enterprises (MEs) and small and medium-sized enterprises (SMEs) in South Africa, as well as to promote cooperation between SMEs in the Community and in South Africa and the region in a manner that is sensitive to gender equality. The Parties shall, inter alia:

(...) (b) provide assistance required by MEs and SMEs, whatever their legal status, in areas such as financing, skills training, **technology** and marketing;”

3. Chile – China RTA (Goods: in force since 01 Aug. 2006; Services: in force since 01 Aug. 2010):

“Article 109 - Small and Medium-Sized Enterprises

1. The Parties will promote a favorable environment for the development of small and medium-sized enterprises (SMEs).

2. Cooperation shall be oriented to share knowledge and good practices with SMEs. These practices should promote partnership and productive chain linkage development, downstream and upstream oriented, to improve SMEs productivity, development of capacities to increase SMEs access to markets, integrate **technology** to labor intensive processes and human resources development to increase their knowledge about Chinese and Chilean markets.

(...) 4. Co-operation shall include, among other subjects:

(...) (d) defining **technological** transference: programs oriented to transfer **technological innovation** to SMEs and to improve their productivity;”

4. Peru – China RTA (in force since 01 Mar. 2010):

“Article 155: Small and Medium-Sized Enterprises

(...) 2. Cooperation shall include, among other subjects:

(...) (e) defining **technological** transference: programs oriented to transfer **technological innovation** to SME and to improve their productivity;”

5. Costa Rica – China RTA (in force since 01 Aug. 2011):

“Article 119: Small and Medium Enterprises

(...) 2. Cooperation shall include, among others, activities to:

(...) (e) promote research and development, transfer of **technology** and **innovation**;”

6. EU - Eastern and Southern Africa States²⁶⁷ (in force since 14 May 2012):

“Article 42

Micro, small and medium-sized enterprises

(...) Areas of cooperation

2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas:

(...) (b) **technology** development and transfer, **innovation**, information exchange and networks and marketing;”

²⁶⁷ According to the WTO RTAs Database, the Eastern and Southern Africa States abovementioned are: Mauritius; Seychelles; Zimbabwe.

7. United Kingdom – Eastern and Southern Africa States²⁶⁸ RTA (in force since 01 Jan. 2021):

“ARTICLE 41

Micro, small and medium-sized enterprises

(...) Areas of cooperation

2. Subject to the provisions of Article 35, the Parties agree to cooperate, including by facilitating support, in the following areas:

(a) capacity building and institutional support;

(b) **technology** development and transfer, **innovation**, information exchange and networks and marketing; (...)”

5.2.2.9 In provisions on gender issues

The selected excerpts of the 2 RTAs that mention “technology” or its variations in provisions on social aspects or issues are transcribed below for ease of reference, in chronological order by date of entry into force.

1. Canada – Israel RTA (in force since 01 Jan. 1997):

“CHAPTER THIRTEEN

TRADE AND GENDER

(...) Article 13.3: Cooperation Activities

(...) 4. Areas of cooperation may include:

(...) (f) promoting female entrepreneurship and women’s participation in international trade, including by improving women’s access to, and participation and leadership in, science, **technology** and **innovation**; (...)”

2. East African Community (EAC) RTA (Goods: in force since 07 Jul. 2000; Services: 01 Jul. 2010):

“CHAPTER 22: ENHANCING THE ROLE OF WOMEN IN SOCIO-ECONOMIC DEVELOPMENT

ARTICLE 121

The Role of Women in Socio-economic Development

The Partner States recognise that women make a significant contribution towards the process of socio-economic transformation and sustainable growth and that it is impossible to implement effective programmes for the economic and social development of the Partner States without the full participation of women. To this end, the Partner States shall through appropriate legislative and other measures:

(...) (d) create or adopt **technologies** which will ensure the stability of employment and professional progress for women workers; and”

5.2.2.10 In provisions on Trade Facilitation and Customs

The selected excerpts of the 77 RTAs that mention “technology” or its variations in provisions on trade facilitation are transcribed below for ease of reference, in chronological order by date of entry into force.

²⁶⁸ According to the WTO RTAs Database, the signatories to this RTA are: Mauritius; Seychelles; Zimbabwe.

1. Canada – Israel RTA (in force since 01 Jan. 1997):

“CHAPTER SIX
TRADE FACILITATION
(...) Article 6.6: Automation

1. Each Party shall use information **technologies** that expedite its procedures for the release of goods in order to facilitate trade, including trade between the Parties.”

2. Pan-Arab Free Trade Area (PAFTA) (in force since 01 Jan. 1998):

“Agreement To Facilitate and Develop Trade Among Arab States
Chapter One - General Provisions
(...) Article IV: Selection of the Arab goods and products referred to in paragraph (3) and (5) of Article VI and in Article VII shall be guided by one or more of the following criteria:
(...) 5. That growth of trade in the good lead to increased acquisition of **technological** capacity and location and development of appropriate **technology**. (...)”

Chapter Two - Substantive Provisions
Article VI: The following Arab goods shall be exempted from customs duties and other taxes of similar effect as well as from non-tariff import restrictions: (...)
Article VII: 1. The parties concerned shall negotiate the gradual reduction of customs duties and taxes of a similar effect imposed on imported Arab goods, in the percentages and ways consistent with the lists approved by the Council. (...)”

3. Southern African Development Community (SADC) RTA (Goods: in force since 01 Sep. 2000; Services: in force since 13 Jan. 2022):

“Trade in goods:
ANNEX II
CONCERNING CUSTOMS CO-OPERATION WITHIN THE SOUTHERN AFRICAN DEVELOPMENT COMMUNITY
(...) ARTICLE 6
COMPUTERISATION OF CUSTOMS OPERATIONS
(...) 6. In automating procedures, Customs authorities of Member States shall allow the possibility of interchanging data with trade users by direct link or on machine-readable media according to the **technology** available.

ANNEX III
CONCERNING SIMPLIFICATION AND HARMONISATION OF TRADE DOCUMENTATION AND PROCEDURES
(...) ARTICLE 4
STANDARDISATION OF TRADE DOCUMENTS AND INFORMATION
(...) 3. Member States shall review national legislation with a view to ensuring that its provisions allow the implementation of paragraph 2 of this Article. In particular, national legislation shall provide for:
(...) e) provisions concerning documentary evidence appropriate to modern information **technology**.”

4. Canada – Costa Rica RTA (in force since 01 Nov. 2002):

“Part Four: Trade Facilitation
(...) Article IX.7 Government Procurement
1. The Parties agree to cooperate with the aim of achieving further liberalisation of public procurement markets and greater transparency in public procurement.
2. The Parties recognize that technical cooperation can contribute to achieving these aims and agree to cooperate in exploring potential approaches to such technical

cooperation through existing mechanisms, particularly with respect to the application of information **technology** to government procurement.”

5. Japan – Singapore RTA (in force since 30 Nov. 2002):

“CHAPTER 4 – CUSTOMS PROCEDURES

(...) Article 36 – Customs Clearance

For prompt customs clearance of goods traded between the Parties, each Party shall:

(a) make use of information and communications **technology**; (...)”

6. China – Macao RTA - Supplement VII to the Arrangement (17 Oct. 2003):

“II. Trade and Investment Facilitation

(1) To support and align with moderate diversification of Macao’s industrial structure, the two sides agree to add cooperation in cultural industry, environmental industry as well as **innovation** and **technology** industry as supplementary components of Industrial Cooperation in the area of Trade and Investment Facilitation under “CEPA”, to further improve cooperation in the convention and exhibition industry, and add in Article 9 of Annex 6 of “CEPA” the following content: (...)

7. EU – Chile RTA (Goods: in force since 01 Feb. 2003; Services: in force since 01 Mar. 2005):

“Section 3

Customs and related matters

(...) 3. The Parties agree that their respective trade and customs provisions and procedures shall be based upon:

(...) (e) the development of information **technology**-based systems, for both export and import operations, between economic operators and customs administrations, and between customs and other agencies. Such systems may also provide for the payment of duties, taxes and other fees by electronic transfer;”

8. United States – Chile RTA (in force since 01 Jan. 2004):

“Chapter Five Customs Administration

(...) Article 5.3: Automation

Each Party’s customs authority shall:

(a) endeavor to use information **technology** that expedites procedures; and

(b) in deciding on the information technology to be used for this purpose, take into account international standards.”

9. Thailand - Australia (in force since 01 Jan. 2005):

“CHAPTER 3

CUSTOMS PROCEDURES

(...) ARTICLE 309

Paperless Trading and Use of Automated Systems

(...) 3. The introduction of information **technology** shall, to the greatest extent possible, be carried out in consultation with all relevant parties directly affected.”

10. Japan – Mexico RTA (in force since 01 Apr. 2005):

“Section 3

Customs Cooperation for Trade Facilitation

Article 50

Customs Cooperation for Trade Facilitation

For prompt customs clearance of goods traded between the Parties, each Party, recognizing the significant role of customs authorities and the importance of customs procedures in promoting trade facilitation, shall make cooperative efforts to:

- (a) make use of information and communications **technology**;
- (b) simplify its customs procedures; and
- (c) make its customs procedures conform, as far as possible, to relevant international standards and recommended practices such as those made under the auspices of the Customs Cooperation Council.”

11. United States – Morocco RTA (in force since 01 Jan. 2006):

“CHAPTER SIX CUSTOMS ADMINISTRATION

(...) ARTICLE 6.3: AUTOMATION

Each Party’s customs authority shall:

- (a) endeavor to use information **technology** that expedites procedures for the importation of goods; and
- (b) in deciding on the information **technology** to be used for this purpose, take into account international standards.”

12. Dominican Republic - Central America - United States Free Trade Agreement (CAFTA-DR) RTA (in force since 01 Mar. 2006):

“Chapter Five

Customs Administration and Trade Facilitation

(...) Article 5.3: Automation

Each Party’s customs authority shall endeavor to use information **technology** that expedites procedures for the release of goods. When deciding on the information **technology** to be used for this purpose, each Party shall:

- (a) use, to the extent possible, international standards;
- (b) make electronic systems accessible to the trading community;
- (c) provide for electronic submission and processing of information and data before arrival of the shipment to allow for the release of goods on arrival;
- (d) employ electronic or automated systems for risk analysis and targeting;
- (e) work towards developing compatible electronic systems among the Parties’ customs authorities, to facilitate government to government exchange of international trade data; and
- (f) work towards developing a set of common data elements and processes in accordance with World Customs Organization (WCO) Customs Data Model and related WCO recommendations and guidelines.

Article 5.5: Cooperation

(...) 8. For purposes of facilitating regional trade, each Party shall endeavor to provide the other Parties with technical advice and assistance for the purpose of improving risk assessment techniques, simplifying and expediting customs procedures, advancing the technical skill of personnel, and enhancing the use of **technologies** that can lead to improved compliance with regard to laws or regulations governing importations.”

13. Japan - Malaysia (in force since 13 Jul. 2006):

“Article 54 – Customs Clearance

(...) 2. For prompt customs clearance of goods traded between the Countries, each Country shall:

- (a) make use of information and communications **technology**; (...)”

14. United States – Bahrain RTA (in force since 01 Aug. 2006):

“CHAPTER FIVE CUSTOMS ADMINISTRATION

(...) ARTICLE 5.3: AUTOMATION

Each Party’s customs authority shall:

- (a) endeavor to use information **technology** that expedites procedures for the importation of goods; and

(b) in deciding on the information **technology** to be used for this purpose, take into account international standards.”

15. Chile – Japan RTA (in force since 03 Sept. 2007):

“Chapter 5 – Customs Procedures

(...) Article 56 – Transparency

1. Each Party shall ensure that all relevant information of general application pertaining to its customs laws and administrative procedures is readily available to any interested person, with maximum use of information and communications **technology**.

Article 57 – Customs Clearance

1. Both Parties shall apply their respective customs procedures in a predictable, consistent and transparent manner.

2. To expedite customs clearance, while ensuring effective enforcement against illicit trafficking of goods, each Party shall:

(a) endeavor to make use of information and communications **technology**, taking into account international standards;

(b) adopt or maintain accessible information and communications **technology** systems, allowing the authorized or registered person to send declarations to its customs authority;”

16. Japan – Thailand RTA (in force since 01 Nov. 2007):

“Chapter 4 – Customs Procedures

(...) Article 53 – Customs Clearance

(...) 2. For the purposes of paragraph 1 above, each Party shall:

(a) make use of information and communications **technology**;

(b) reduce and simplify import and export documentation requirements; and

(c) harmonise its customs procedures, as far as possible, with relevant international standards and recommended practices such as those made under the auspices of the Customs Co-operation Council.”

17. Pakistan – Malaysia RTA (in force since 01 Jan. 2008):

“Chapter Four: Customs Procedures and Cooperation

Article 38 Customs Clearance

(...) 2. For prompt customs clearance of goods traded between the countries of the Parties, each Party shall:

(a) make use of information and communications **technology**; (...)

Article 45

Information and Communications **Technology**

1. The Parties shall endeavour to establish an electronic data interchange to provide for bilateral exchange of information on trade between them or any customs matter.

2. The customs authorities of the Parties shall exchange information, including best practices, on the use of information and communications **technology** for the purpose of improving customs procedures.”

18. Panama - Chile (in force since 07 Mar. 2008):

“CAPÍTULO 5 ADMINISTRACIÓN DE ADUANAS

(...) Artículo 5.3: Uso de la **tecnología** de la información

La autoridad aduanera de cada Parte se esforzará para utilizar **tecnología** de la información que haga más expedito sus procedimientos. Al instalar aplicaciones computacionales deberá tomar en cuenta las normas o estándares internacionales.

Artículo 5.5: Cooperación aduanera

(...) 3. La cooperación incluirá, entre otros, aspectos relativos a:

(...) (g) incrementar el uso de **tecnologías** que pudieran conducir a un mayor cumplimiento de las leyes y regulaciones de importación aplicables;”

19. Japan - Indonesia (in force since 01 Jul. 2008):

“Article 54

Customs Clearance

1. Both Parties shall apply their respective customs procedures in a predictable, consistent and transparent manner.
2. For the accomplishment of the purposes of paragraph 1, each Party shall:
 - (a) make use of information and communications **technology**; (...)”

20. Brunei Darussalam - Japan (in force since 31 Jul. 2008):

“Article 51

Customs Clearance

1. Both Parties shall apply their respective customs procedures in a predictable, consistent and transparent manner.
2. For prompt customs clearance of goods traded between the Parties, each Party shall:
 - (a) make use of information and communications **technology**;

21. China – New Zealand RTA (01 Oct. 2008):

“CHAPTER 5

CUSTOMS PROCEDURES AND COOPERATION

(...) Article 53 Use of Automated Systems in the Paperless Trading Environment

The customs administrations shall apply information **technology** to support customs operations, where it is cost-effective and efficient, particularly in the paperless trading context, taking into account developments in this area within the WCO.”

22. Japan – Philippines RTA (in force since 11 Dec. 2008):

“Chapter 4

Customs Procedures

Article 53

Customs Clearance

(...) 2. For the accomplishment of the purpose of paragraph 1 above, each Party shall:

- (a) make use of information and communications **technology**;
- (b) reduce and simplify import and export documentation requirements; and
- (c) harmonize its customs procedures, as far as possible, with relevant international standards and recommended practices such as those made under the auspices of the World Customs Organization.”

23. EU – CARIFORUM States²⁶⁹ RTA (in force since 29 Dec. 2008):

“PART II

TRADE AND TRADE-RELATED MATTERS

TITLE I

TRADE IN GOODS

CHAPTER 1 - Customs duties

(...) Article 10

Rules of origin

²⁶⁹ According to the WTO RTAs Database, the CARIFORUM States at that point of time were: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

For the purposes of this Chapter, ‘originating’ means qualifying under the rules of origin set out in Protocol I. Within the first five years of the entry into force of this Agreement the Parties shall review the provisions of Protocol I, with a view to further simplifying the concepts and methods used for the purpose of determining origin in the light of the development needs of the CARIFORUM States. In such review, the Parties shall take into account the development of **technologies**, production processes and all other factors which may require modifications to the provisions of Protocol I. Any such modifications shall be effected by a decision of the Joint CARIFORUM-EC Council.”

24. China – Singapore RTA (in force since 01 Jan. 2009):

“CHAPTER 5
CUSTOMS PROCEDURES AND TRADE FACILITATION
(...) ARTICLE 5

Use of Automated Systems

1. The customs administrations shall use information **technology** to support customs operations, including sharing of best practices for the purposes of improving their customs procedures, where it is cost effective and efficient, particularly in the paperless trading context taking into account development in this area within the World Customs Organization (the “WCO”).

2. In using information **technology** to support customs operations, the customs administration of each Party shall take into account:

- (a) their available infrastructure and capabilities; and
- (b) the relevant standards such as the WCO Data Model and best practices recommended by the WCO.

ARTICLE 6 Single Window

(...) 3. Each Party shall, to the extent possible and practicable, use information **technology** to support its single window.”

25. United States – Oman RTA (in force since 01 Jan. 2009):

“CHAPTER FIVE CUSTOMS ADMINISTRATION
(...) ARTICLE 5.3: AUTOMATION

Each Party’s customs authority shall:

- (a) endeavor to use information **technology** that expedites procedures for the importation of goods; and
- (b) in deciding on the information **technology** to be used for this purpose, take into account international standards.”

26. Peru – Chile RTA (in force since 01 Mar. 2009):

“ Capítulo 5
Procedimientos Aduaneros y Facilitación del Comercio
(...) Artículo 5.3: Automatización

1. Las Partes trabajarán para que la adopción del uso de **tecnología** de información permita procedimientos expeditos en el despacho de mercancías. Al instalar las aplicaciones computacionales las Partes deberán tomar en cuenta las normas o estándares internacionales.

Artículo 5.5: Cooperación Aduanera

(...) 3. Sin perjuicio de lo establecido en otros acuerdos de cooperación, las Partes se comprometen a cooperar en el cumplimiento de sus leyes y regulaciones en lo concerniente a:

- (...) (g) incrementar el uso de las **tecnologías**; y »

27. Chile – Australia RTA (in force since 09 Mar. 2009):

“Chapter 5 - Customs Administration

(...) Article 5.11:

Paperless Trading

(...) 3. The introduction and enhancement of information **technology** shall, to the greatest extent possible, be carried out in consultation with all relevant parties including businesses directly affected.”

28. Chile – Colombia RTA (in force since 08 May 2009):

“Capítulo 5 Facilitación del Comercio

(...) Artículo 5.4: Automatización

Las autoridades aduaneras trabajarán en la adopción de **tecnología** de la información que permita implementar procedimientos expeditos para el despacho de las mercancías. Al elegir la **tecnología** de la información a ser utilizada para ese propósito, cada Parte:

(a) utilizará normas o estándares internacionales;

(b) hará que los sistemas electrónicos sean accesibles para los usuarios aduaneros autorizados;

(c) preverá lo necesario para la remisión y procesamiento electrónico de información y datos antes de la llegada del envío, a fin de permitir el despacho de mercancías al momento de su llegada;

(d) empleará sistemas electrónicos o automatizados para el análisis y direccionamiento de riesgos;

(e) trabajará en el desarrollo de sistemas electrónicos compatibles con los de la autoridad aduanera de la otra Parte, a fin de facilitar el intercambio de datos de comercio internacional entre las Partes; y

(f) trabajará para desarrollar, un conjunto de elementos y procesos de datos comunes de acuerdo con el Modelo de Datos Aduaneros de la Organización Mundial de Aduanas y las recomendaciones y lineamientos conexos de la Organización Mundial de Aduanas (OMA).

Artículo 5.6: Cooperación Aduanera

(...) 9. Con el fin de facilitar el comercio entre las Partes, cada Parte se esforzará para proporcionar a la otra Parte asesoría y asistencia técnica con el propósito de mejorar las técnicas de evaluación y administración de riesgos, simplificando y haciendo más expeditos los procedimientos aduaneros para el despacho oportuno y eficiente de las mercancías, mejorar las habilidades técnicas del personal e incrementar el uso de **tecnologías** que puedan conducir al mejor cumplimiento de la legislación o regulaciones que rijan las importaciones de una Parte.”

29. Canada – Peru RTA (in force since 01 Aug. 2009):

“Chapter 4 - Origin Procedures and Trade Facilitation

(...)

Article 411: Automation

Each Party shall use information **technologies** that expedites procedures for the release of goods and shall:

(a) establish a means of providing for the electronic exchange of information between customs administrations and the trading community for the purpose of encouraging rapid release procedures;

(b) use international standards for such electronic exchange of information;

(c) develop electronic systems that are compatible as between the Parties' respective customs authorities to facilitate government-to-government exchange of international trade data;

(d) develop a set of common data elements and processes in accordance with WCO Customs Data Model and related WCO recommendations and guidelines;

(e) provide for advance electronic submission and processing of information and data before arrival of the goods to allow for release of goods on arrival;

(f) employ electronic or automated systems for risk analysis and targeting; and

(g) work towards developing or maintaining a fully interconnected and compatible system for a single window in order to facilitate trade between the Parties.”

30. Peru – Singapore RTA (in force since 01 Aug. 2009):

“CHAPTER 5: CUSTOMS

(...) ARTICLE 5.5: COOPERATION

1. To the extent permitted by their domestic law, the customs administrations of the Parties may, as they deem fit, assist each other, in relation to originating goods, by providing information on:

(...) (e) advancing technical skills and the use of **technology**.”

31. Japan – Switzerland (Panama – Central America) RTA (in force since 01 Sep. 2009):

“Article 29

Customs Clearance

1. The Parties shall apply their respective customs procedures in a predictable, consistent and transparent manner.

2. For prompt customs clearance of products traded between the customs territories of the Parties, each Party shall:

(a) make use of information and communications **technology**.”

32. Japan – Viet Nam RTA (in force since 01 Oct. 2009):

“Chapter 4

Customs Procedures

(...) Article 41

Customs Clearance

(...) 2. For prompt customs clearance of goods traded between the Parties, each Party shall:

(a) endeavor to make use of information and communications **technology**; (...)”

33. EU – Pacific States RTA (in force since 20 Dec. 2009):

“ PART II

TRADE IN GOODS

(...) CHAPTER 1

Customs duties

Article 8

Rules of origin

For the purposes of this Chapter, ‘originating’ means qualifying under the rules of origin set out in Protocol II to this Agreement. In the period of the five years following the entry into force of this Agreement the Parties shall review the operation of these provisions, with a view to further simplifying the concepts and methods used for the purpose of determining origin in the light of the development needs of the Pacific States. In such review, full consideration shall be given to providing certainty for investors, the development of **technologies** and production processes and all other factors, including on-going reforms of rules of origin and the establishment of appropriate mechanisms for administrative cooperation between the Parties and the Pacific States as the case may be, which may require modifications to the provisions of this Protocol. Not later than one year before the end of this period, the Parties shall open negotiations on the Protocol with a view to modifying or replacing it. Any such modification or replacement shall be effected by a decision of the Trade Committee.

Article 28

Customs procedures

(...) 2. The EC Party and the Pacific States agree that their respective trade and customs legislation, provisions and procedures shall be based upon:

(...) (d) the progressive development of systems, including those based upon Information **Technology**, to facilitate the electronic exchange of data between traders, customs administrations and other related agencies;”

34. Korea - India RTA (in force since 01 Jan. 2010):

“CHAPTER FIVE

TRADE FACILITATION AND CUSTOMS COOPERATION

(...) ARTICLE 5.3: AUTOMATION

Each Party shall endeavour to use information **technology** that expedites procedures for the release of goods and shall endeavour to:

(a) make electronic systems accessible to customs users; and

(b) use international standards, including the development of a set of common data elements and processes in accordance with World Customs Organization (hereinafter referred to as “WCO”) Customs Data Model and related WCO recommendations and guidelines.”

35. ASEAN – Australia – New Zealand RTA (in force since 01 Jan. 2010):

“CHAPTER 4 CUSTOMS PROCEDURES

(...) Article 5 Customs Co-operation

1. To the extent permitted by its domestic law, the customs administration of each Party may, as deemed appropriate, assist the customs administration of each other Party, in relation to:

(...) (e) advancing technical skills and the use of **technology**; and (...)”

36. Peru – China RTA (in force since 01 Mar. 2010):

“CHAPTER 4

CUSTOMS PROCEDURES AND TRADE FACILITATION

(...) Article 61: Use of Automated Systems in the Paperless Trading Environment

1. The customs administrations shall apply information **technology** to support customs operations, where it is cost-effective and efficient, particularly in the paperless trading context, taking into account developments in this area within the WCO.

2. The customs administrations shall endeavor to use information **technology** that expedites procedures for the release of goods, including the submission and processing of information and data before arrival of the shipment, as well as electronic or automated systems for risk management and targeting.”

37. ASEAN Free Trade Area (AFTA) (in force since 17 May 2010):

“CHAPTER 5

TRADE FACILITATION

(...)

Article 47

Principles on Trade Facilitation

Member States shall be guided by the following principles in relation to trade facilitation measures and initiatives at both ASEAN and national levels:

(...)

(g) Modernisation and use of new **technology**: Rules and procedures relating to trade to be reviewed and updated if necessary, taking into account changed circumstances, including new information and new business practices, and based on the adoption, where appropriate, of modern techniques and new **technology**. Where new **technology** is used, relevant authorities shall make best efforts to spread the accompanying benefits to all parties through ensuring the openness of the information on the adopted **technologies** and extending co-operation to authorities of other economies and the private sector in establishing inter-operability and/or inter-connectivity of the **technologies**;

CHAPTER 6
CUSTOMS

(...) Article 58

Application of Information **Technology**

Member States, where applicable, shall apply information **technology** in customs operations based on internationally accepted standards for expeditious customs clearance and release of goods. »

38. Hong Kong – New Zealand RTA (in force since 01 Jan. 2011):

“CHAPTER 5
CUSTOMS PROCEDURES AND COOPERATION
Article 7

Use of Automated Systems

The customs administration of each Party shall apply information **technology** to support customs operations where it is practicable, cost-effective and efficient, particularly in the paperless trading context, including taking into account developments on this issue within the World Customs Organization.”

39. India – Malaysia RTA (in force since 01 Jul. 2011):

“CHAPTER 4 CUSTOMS COOPERATION
Article 4.6

Information and Communications **Technology**

The customs authorities of the Parties shall cooperate to promote the use of information and communications **technology** including sharing best practices, for the purpose of improving their customs procedures.”

40. EU – Korea RTA (in force since 01 Jul. 2011):

“CHAPTER SIX
CUSTOMS AND TRADE FACILITATION
Article 6.1

Objectives and principles

With the objectives of facilitating trade and promoting customs cooperation on a bilateral and multilateral basis, the Parties agree to cooperate and to adopt and apply their import, export and transit requirements and procedures for goods on the basis of the following objectives and principles:

(a) in order to ensure that import, export and transit requirements and procedures for goods are efficient and proportionate;

(...) (iv) each Party shall use information **technology** that expedites procedures for the release of goods;”

41. Costa Rica – China RTA (in force since 01 Aug. 2011):

“Chapter 5
Customs Procedures
Article 50: Use of Automated Systems

1. The customs administrations shall apply information **technology** to support customs operations, particularly by facilitating the transmission of information prior to the arrival of the shipment, to allow the release of goods in the shortest time possible after their arrival.

2. The customs administrations shall endeavour to use information **technology** that expedites procedures for the release of goods and risk management and targeting.

(...) Article 51: Cooperation

4. For purposes to facilitate the flow of trade between the Parties, the Parties shall endeavour to provide the other Party with technical advice and assistance for the

purpose of improving risk assessment techniques, simplifying and expediting customs procedures, advancing the technical skills of personnel, and enhancing the use of **technologies** that can lead to improved compliance with the laws or regulations governing importations.

42. Canada – Colombia RTA (in force since 15 Aug. 2011):

“Chapter Four: Origin Procedures and Trade Facilitation

(...) Article 411: Automation

Each Party shall use information **technologies** that expedite procedures for the release of goods and shall:

- (a) establish a means of providing for the electronic exchange of information between customs administrations and the trading community for the purpose of encouraging rapid release procedures;
- (b) use international standards for such electronic exchange of information;
- (c) develop electronic systems that are compatible as between the Parties’ respective customs authorities to facilitate government-to-government exchange of international trade data;
- (d) develop a set of common data elements and processes in accordance with WCO Customs Data Model and related WCO recommendations and guidelines;
- (e) provide for advance electronic submission and processing of information and data before arrival of the goods to allow for release of goods on arrival;
- (f) employ electronic or automated systems for risk analysis and targeting; and
- (g) work towards developing or maintaining a fully interconnected and compatible system for a single window in order to facilitate trade between the Parties.”

43. Korea – United States RTA (in force since 15 Mar. 2012):

“CHAPTER SEVEN

CUSTOMS ADMINISTRATION AND TRADE FACILITATION

(...) ARTICLE 7.3: AUTOMATION

(...) Each Party shall use information **technology** that expedites procedures for the release of goods and shall:

- (a) make electronic systems accessible to customs users;
- (b) endeavor to use international standards;
- (c) endeavor to develop electronic systems that are compatible with the other Party’s systems, in order to facilitate bilateral exchange of international trade data; and
- (d) endeavor to develop a set of common data elements and processes in accordance with World Customs Organization (WCO) Customs Data Model and related WCO recommendations and guidelines.”

44. Peru – Panama RTA (in force since 01 May 2012):

“Capítulo 4

Facilitación del Comercio y Procedimientos Aduaneros

Artículo 4.3: Automatización

1. Cada Parte se esforzará por usar **tecnología** de información que haga expeditos y eficientes los procedimientos para el despacho de mercancías. Al escoger la **tecnología** de información a ser utilizada para tal efecto, cada Parte: (...)

Capítulo 5

Cooperación y Asistencia Administrativa Mutua en Asuntos Aduaneros

(...) Artículo 5.5: Cooperación y Asistencia Técnica

Cuando no contravenga su legislación, disposiciones y prácticas nacionales, las autoridades competentes deberán cooperar en asuntos aduaneros, incluyendo:

(...) (d) el intercambio de información acerca de nuevas **tecnologías**, métodos y procedimientos en la aplicación de la legislación aduanera; y (...).”

45. United States – Colombia RTA (in force since 15 May 2012):

“Chapter Five: Customs Administration and Trade Facilitation

Article 5.3: Automation

Each Party shall endeavor to use information **technology** that expedites procedures for the release of goods. When deciding on the information **technology** to be used for this purpose, each Party shall: (...)

Article 5.5: Cooperation

(...) 8. For purposes of facilitating trade between the Parties, each Party shall endeavor to provide the other Parties with technical advice and assistance for the purpose of improving risk assessment and risk management techniques, facilitating the implementation of international supply chain standards, simplifying and expediting customs procedures for the timely and efficient clearance of goods, advancing the technical skill of personnel, and enhancing the use of **technologies** that can lead to improved compliance with regard to a Party’s laws or regulations governing importations.”

46. Mexico – Central America RTA (in force since 01 Sep. 2012):

“Capítulo 6 - Facilitación de Comercio

Artículo 6.5: Automatización

1. Las autoridades aduaneras se esforzarán por utilizar **tecnología** de la información que agilice los procedimientos para el despacho de las mercancías. Al elegir la **tecnología** de la información a ser utilizada para ese propósito, cada Parte:

(a) hará esfuerzos por usar normas internacionales;

(b) hará que los sistemas electrónicos sean accesibles para los usuarios de aduanas;

(c) preverá lo necesario para la remisión y procesamiento electrónico de información y datos antes de la llegada del envío, a fin de permitir el despacho de mercancías al momento de su llegada;

(d) empleará sistemas electrónicos o automatizados para el análisis y direccionamiento de riesgos;

(e) trabajará en el desarrollo de sistemas electrónicos compatibles entre las autoridades aduaneras de las Partes, a fin de facilitar el intercambio de datos de comercio internacional entre gobiernos; y

(f) trabajará para desarrollar un conjunto de elementos y procesos de datos comunes de acuerdo con el Modelo de Datos Aduaneros, recomendaciones y lineamientos conexos de la OMA.

Artículo 6.6: Cooperación

(...) 8. Con el fin de facilitar el comercio entre las Partes, cada Parte se esforzará por proporcionar a la otra Parte asesoría y asistencia técnica con el propósito de mejorar las técnicas de evaluación y administración de riesgos, simplificando y haciendo más expeditos los procedimientos aduaneros para el despacho oportuno y eficiente de las mercancías; mejorar las habilidades técnicas del personal, e incrementar el uso de **tecnologías** que puedan conducir al mejor cumplimiento de la legislación o regulaciones en materia de importaciones de una Parte.”

47. United States – Panama RTA (in force since 21 Dec. 2012):

“Chapter Five

Customs Administration and Trade Facilitation

(...) Article 5.3: Automation

Each Party’s customs authority shall endeavor to use information **technology** that expedites procedures for releasing goods from customs. When deciding on the information **technology** to be used for this purpose, each Party shall:

(a) use, to the extent possible, international standards; (...)

Article 5.5: Cooperation

(...) 8. In order to facilitate bilateral trade, each Party shall endeavor to provide the other Party with technical advice and assistance for the purpose of improving its risk assessment techniques, simplifying and expediting its customs procedures, advancing the technical skill of its personnel, and enhancing its use of **technologies** that can lead to improved compliance with regard to its laws or regulations governing importations.”

48. Malaysia – Australia RTA (in force since 01 Jan. 2013):

“CHAPTER 4

CUSTOMS PROCEDURES AND COOPERATION

Article 4.4 – Cooperation

(...) 3. This could include cooperation in relation to the following:

- (a) implementation and operation relating to the importation or exportation of goods;
- (b) the use of information and communications **technology**, including possible electronic data interchange between the Parties; (...)

49. EU – Colombia, Ecuador and Peru RTA (in force since 01 Mar. 2013):

“Article 59

Customs and Trade-Related Procedures

(...) 2. The Parties agree that their respective trade and customs legislation, provisions and procedures shall be based upon:

- (...) (f) the progressive development of systems, including those based upon information **technology**, to facilitate the electronic exchange of data between economic operators, customs administrations and other related agencies. To this end, and to the extent possible, each Party shall progressively work towards the establishment of a single window in order to facilitate external trade operations;”

50. Korea – Türkiye RTA - The Framework Agreement (Goods: in force since 01 May 2013; Services: in force since 01 Aug. 2018):

“TRADE IN GOODS AGREEMENT:

CHAPTER 3

CUSTOMS AND TRADE FACILITATION

ARTICLE 3.1: OBJECTIVES AND PRINCIPLES

With the objectives of facilitating trade and promoting customs cooperation on a bilateral and multilateral basis, the Parties agree to cooperate and to adopt and apply their import, export and transit requirements and procedures for goods on the basis of the following objectives and principles:

(...) (a) in order to ensure that import, export and transit requirements and procedures for goods are efficient and proportionate:

- (...) (iv) each Party shall use information **technology** that expedites procedures for the release of goods;

CHAPTER 3

CUSTOMS AND TRADE FACILITATION

(...) ARTICLE 3.4: AUTOMATION

Each customs administration shall apply information **technology** that expedites procedures for the release of goods to support customs operations, where it is cost-effective and efficient, particularly in the paperless trading context, taking into account developments in this area within the WCO.

Section C: Final Provisions

ARTICLE 31: REVIEW AND AMENDMENTS

1. The Customs Committee may review the provisions of this Protocol, Annex II and Chapter 3 (Customs and Trade Facilitation), and discuss the necessary amendments on request of one of the Parties. While discussing those amendments, the Customs Committee shall take into account the development of **technologies**, production

processes, price fluctuations and all other factors, which might justify the changes to the rules of origin.”

51. Costa Rica – Singapore RTA (01 Jul. 2013):

“Chapter 4 Customs
Section A: Customs Procedures
(...) Article 4.5: Cooperation
To the extent permitted by their domestic law, the customs authorities of the Parties may, as they deem fit, assist each other, in relation to originating goods, by providing information on:
(...) (e) advancing technical skills and use of **technology**.”

52. EU – Central America²⁷⁰ RTA (in force since 01 Aug. 2013):

“CHAPTER 3
Customs and trade facilitation
(...) Article 118
Customs and Trade-Related Procedures
1. The Parties agree that their respective customs legislation, provisions and procedures shall be based upon:
(...) (f) the progressive development of systems, including those based upon information **technology**, to facilitate the electronic exchange of data within customs administrations and with other related public institutions; »

53. New Zealand – Chinese Taipei RTA (in force since 01 Dec. 2013):

“CHAPTER 4
CUSTOMS PROCEDURES AND COOPERATION
Article 7
Use of Automated Systems
1. The customs administrations shall use information **technology** that expedites procedures for the release of goods, as well as electronic or automated systems for risk management and targeting. (...)

Article 12 Customs Cooperation
1. The customs administrations of the Parties may assist each other by providing information on the following:
(...) (f) advancing technical skills and the use of **technology**.”

54. Chile – Viet Nam RTA (in force since 01 Jan. 2014):

“CAPÍTULO 5 ADMINISTRACIÓN ADUANERA
(...) Artículo 5.10: **Tecnologías** de la Información y de las Comunicaciones
Las Autoridades Aduaneras de las Partes se esforzarán por promover el uso de las **tecnologías** de la información y de las comunicaciones en sus procedimientos aduaneros, incluyendo el intercambio de mejores prácticas, con el propósito de mejorar sus procedimientos aduaneros.
(...) Artículo 5.12: Comercio Sin Papeles
(...) 3. La introducción y mejora de la **tecnología** de información deberá, en la mayor medida de lo posible, ser llevada a cabo en consulta con todas las partes pertinentes, incluidas las empresas directamente afectadas.”

²⁷⁰ According to the WTO RTAs Database, “Central America” in this specific case refers to: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

55. Singapore – Chinese Taipei RTA (in force since 19 Apr. 2014):

“CHAPTER 5 CUSTOMS PROCEDURES
(...) ARTICLE 5.12 COOPERATION
(...) 2. Subject to available resources, the customs administrations of the Parties may, as deemed appropriate, explore cooperation projects to:
(a) further simplify and expedite customs procedures; and
(b) share advance technical skills and experiences in usage of technology. (...)”

56. Iceland – China RTA (in force since 01 Jul. 2014):

“CHAPTER 4 CUSTOMS PROCEDURES AND TRADE FACILITATION
Article 46
General Principles
(...) 2. The Parties agree that the following principles, inter alia, are the basis for the development and administration by competent authorities, of trade facilitation measures:
(...) (d) the best possible use of information technology;

Article 54
Application of Information Technology
The Parties shall apply information technology to support customs operations, where it is cost effective and efficient, particularly in the paper less trading context, taking into account developments in this area within the WCO.”

57. Switzerland – China RTA (in force since 01 Jul. 2014):

“ARTICLE 4.3
General Principles
The Parties, aiming to serve the interests of their respective business communities and to create a trading environment allowing them to benefit from the opportunities offered by this Agreement, agree that in particular the following principles are the basis for the development and administration by competent authorities of trade facilitation measures:
(...) (d) the best possible use of information technology;

58. Korea – Australia RTA (in force since 12 Dec. 2014):

“Chapter 4 - Customs administration and Trade facilitation
ARTICLE 4.4: USE OF AUTOMATED SYSTEMS IN THE PAPERLESS TRADING ENVIRONMENT
1. Each customs administration shall apply information technology to support customs operations where it is cost-effective and efficient, particularly in the paperless trading context, taking into account developments in this area within the WCO.
2. Each customs administration shall endeavour to use information technology that expedites procedures for the release of goods, including the submission and processing of information and data before the arrival of the shipment of those goods, as well as electronic or automated systems for risk management and targeting.”

59. Canada – Korea RTA (in force since 01 Jan. 2015):

“Chapter Four: Origin Procedures and Trade Facilitation
(...) Article 4.17: Automation
Each Party shall use information technology that expedites procedures for the release of goods and shall:
(a) establish a means of providing for the electronic exchange of information between that Party's customs administration and the trading community for the purpose of encouraging rapid release procedures;

- (b) endeavour to use international standards for such electronic exchange of information;
- (c) endeavour to develop compatible electronic systems between the Parties' customs administrations, to facilitate government-to-government exchange of international trade data; and
- (d) endeavour to develop a set of common data elements and processes in accordance with WCO Customs Data Model, and related WCO recommendations and guidelines.”

60. Eurasian Economic Union (EAEU)²⁷¹ (in force since 01 Jan. 2015):

“SECOND PART
CUSTOMS UNION

Section V

INFORMATION INTERACTION AND STATISTICS

Article 23 – Information Interaction within the EAEU

1. Arrangements aimed at ensuring information cooperation using the information and communication **technologies** and cross-border space of trust within the EEU shall be developed and implemented in order to ensure informational support of the integration processes in all areas affecting the functioning of the EAEU,
- (...) 3. To ensure effective integration of state information resources and information systems the member States shall carry a coordinated policy in the field of information and information **technology**.
4. While using the software and hardware and information **technologies** the member States shall ensure the protection of intellectual property used or produced during the process of interaction. (...)

SECTION VI

FUNCTIONING OF THE CUSTOMS UNION

(...) Article 27 – Establishment and Functioning of Free (Special) Economic Zones and Free Warehouses

In order to facilitate social and economic development of the member States, attraction of investments, establishment and development of industries, based on new **technologies**, development of transport infrastructure, tourism and health resort areas and other aims within the territories of member States free (special) economic zones (SEZs) and free warehouses shall be established and function.

Conditions of establishment and functioning of free (special) economic zones and free warehouses are stipulated by international agreements within the framework of the EAEU.”

61. Australia – Japan RTA (in force since 15 Jan. 2015):

“Article 4.4

Customs Clearance

1. The Parties shall apply their respective customs procedures in a predictable, consistent, transparent, impartial and reasonable manner.
2. For prompt customs clearance of goods traded between the Parties, each Party shall:
 - (a) make use of information and communications **technology**; (...)

62. Mexico – Panama RTA (in force since 01 Jul. 2015):

“CAPÍTULO 5

FACILITACIÓN DE COMERCIO Y COOPERACIÓN ADUANERA

(...) Sección A: Facilitación del Comercio

(...) Artículo 5.4: Automatización

²⁷¹ According to the WTO RTA Database, the EAEU is comprised of: Armenia; Belarus; Kazakhstan; Kyrgyz Republic; Russian Federation.

Cada Parte se esforzará para usar **tecnología** de información que haga expeditos los procedimientos para el despacho de mercancías. Al escoger la **tecnología** de información a ser utilizada para tal efecto, cada Parte:”

63. Türkiye – Malaysia RTA (in force since 01 Aug. 2015):

“Article 5.8

Customs Cooperation

1. To the extent permitted by their domestic law, the customs administrations of the Parties may, as deemed appropriate, assist each other, in relation to:

(...) (e) advancing technical skills and the use of **technology**; and”

64. Chile – Thailand RTA (in force since 05 Nov. 2015):

“Chapter 5

Customs Procedures

Section A

General Provision

Article 5.2: Objectives

The objectives of this Chapter are to:

(...) (d) facilitate trade in goods between the Parties by the use of information and communications **technology**, taking into account international standards; and (...)

Article 5.12: Use of Automated System and Paperless Trading

1. The customs authorities of the Parties shall make cooperative efforts to promote the use of information and communications **technology** in their customs procedures including sharing best practices, for the purpose of improving their customs procedures.

2. The customs authorities of each Party, in implementing initiatives which provide for the use of paperless trading, shall take into account the methods agreed by the WCO, including adoption of the WCO data model for the simplification and harmonisation of data.

3. The customs authorities of each Party shall work towards having electronic means for all its customs reporting requirements, as soon as practicable.

4. The introduction and enhancement of information **technology** shall, to the greatest extent possible, be carried out in consultation with all relevant parties including business directly affected.”

65. Korea – China RTA (in force since 20 Dec. 2015):

“CHAPTER 4

CUSTOMS PROCEDURES AND TRADE FACILITATION

Article 4.12: Use of Automated Systems

The customs authorities shall apply information **technology** to support customs operations, where it is cost-effective and efficient, particularly in the paperless trading context taking into account developments in this area within the WCO.”

66. Australia – China RTA (in force since 20 Dec. 2015):

“CHAPTER 4

CUSTOMS PROCEDURES AND TRADE FACILITATION

ARTICLE 4.6: APPLICATION OF INFORMATION **TECHNOLOGY**

1. Each Party shall apply information **technology** to support customs operations, where it is cost-effective and efficient, particularly in the paperless trading context, taking into account developments in this area within relevant international organisations, including the World Customs Organization.

2. The customs administration of each Party shall endeavour to establish as soon as practicable an electronic means for communication of relevant information required

by it and other relevant, trade-related agencies to facilitate the international movement of goods and means of transport.

3. The introduction and enhancement of information **technology** shall, to the greatest extent possible, be carried out in consultation with relevant parties, including businesses directly affected.”

67. Pacific Alliance RTA (in force since 01 May 2016):

“CAPÍTULO 5

FACILITACIÓN DEL COMERCIO Y COOPERACIÓN ADUANERA

(...) ARTÍCULO 5.5: Automatización

Cada Parte se esforzará en usar **tecnología** de información que haga expeditos los procedimientos para el despacho de mercancías. Al escoger la **tecnología** de información a ser utilizada para tal efecto, cada Parte:

- (a) se esforzará por usar normas internacionales;
- (b) hará que los sistemas electrónicos sean accesibles para los usuarios de aduanas;
- (c) preverá la remisión y procesamiento electrónico de información y datos antes de la llegada del envío, a fin de permitir el despacho de mercancías al momento de su llegada;
- (d) empleará sistemas electrónicos o automatizados para el análisis y gestión de riesgos;
- (e) trabajará en la interoperabilidad de los sistemas electrónicos de las administraciones aduaneras de las Partes, a fin de facilitar el intercambio de datos de comercio internacional, y
- (f) trabajará para desarrollar un conjunto de elementos y procesos de datos comunes de acuerdo con el Modelo de Datos Aduaneros de la Organización Mundial de Aduanas (en lo sucesivo, denominado “OMA”) y las recomendaciones y lineamientos conexos de la OMA.

ARTÍCULO 5.14: Cooperación Aduanera

2. Una administración aduanera brindará a las demás administraciones aduaneras asesoría y asistencia técnica con el objeto de mejorar la aplicación de las normas de valoración aduanera y administración de riesgos, facilitar la implementación de normas de cadenas de suministro internacionales, simplificar y hacer más expeditos los procedimientos aduaneros para el despacho oportuno y eficiente de las mercancías, incrementar las habilidades técnicas del personal y mejorar el uso de **tecnologías** que puedan conducir al mejor cumplimiento de la legislación o regulaciones de una Parte que rijan el ingreso de mercancías a su territorio.

(...) 4. Las administraciones aduaneras cooperarán en:

- (b) el intercambio de información técnica, relacionada con la legislación aduanera, procedimientos y nuevas **tecnologías** aplicadas por las Partes;

ANEXO 5.9

VENTANILLA ÚNICA DE COMERCIO EXTERIOR

Marco para la Implementación de la Interoperabilidad de las VUCE

3. La interoperabilidad de las VUCE abarca los aspectos **tecnológicos**, lineamientos estratégicos y normativos, la adopción de estándares y buenas prácticas internacionales para la cooperación entre las Partes y la facilitación del comercio, mediante el intercambio de información entre sus VUCE. »

68. Japan – Mongolia RTA – Implementation Agreement (in force since 07 Jun. 2016):

“Article 4.4 Customs Clearance

1. The Parties shall apply their respective customs procedures in a predictable, consistent and transparent manner.

2. For prompt customs clearance of goods traded between the Parties, each Party shall:

- (a) make use of information and communications **technology**; (...)”

69. Colombia – Costa Rica RTA (in force since 01 Aug. 2016):

“CAPÍTULO 4

FACILITACIÓN DEL COMERCIO Y PROCEDIMIENTOS ADUANEROS

(...) ARTÍCULO 4.3: AUTOMATIZACIÓN

1. Cada Parte se esforzará por usar **tecnología** de información que haga expeditos y eficientes los procedimientos para el despacho de mercancías. Al escoger la **tecnología** de información a ser utilizada para tal efecto, cada Parte:

(a) hará esfuerzos por usar normas, estándares y prácticas reconocidas internacionalmente;

(b) hará que los sistemas electrónicos sean accesibles para los usuarios de sus aduanas;

(...)

CAPÍTULO 5

COOPERACIÓN TÉCNICA Y ASISTENCIA MUTUA EN ASUNTOS ADUANEROS

(...) ARTÍCULO 5.2: COOPERACIÓN TÉCNICA

(...) 2. La cooperación técnica versará, entre otras cosas en:

(a) la capacitación para el desarrollo de habilidades especializadas de sus funcionarios aduaneros;

(b) el intercambio de información profesional, científica y técnica, en nuevas **tecnologías** y métodos, relacionados con la legislación aduanera y procedimientos aplicables; (...)

70. Eurasian Economic Union (EAEU) - Viet Nam RTA (in force since 05 Oct. 2016):

“ CHAPTER 5

CUSTOMS ADMINISTRATION AND TRADE FACILITATION

(...) ARTICLE 5.18

Automation

1. The customs authorities of the Parties shall ensure that customs operations may be performed with the use of information systems and information **technologies**, including those based on electronic means of communication.

SPS Measures

ARTICLE 7.8

Documents Confirming Safety

4. The Parties shall promote the use of electronic **technologies** in the documents for confirming safety of the products (goods) in order to facilitate trade. »

71. Peru – Honduras RTA (in force since 01 Jan. 2017):

“Capítulo 4

Facilitación del Comercio y Procedimientos Aduaneros

(...) Artículo 4.3: Automatización

1. Cada Parte se esforzará por usar **tecnología** de información que haga expeditos y eficientes los procedimientos para el despacho de mercancías. Al escoger la **tecnología** de información a ser utilizada para tal efecto, cada Parte:

(a) hará esfuerzos por usar normas, estándares y prácticas reconocidas internacionalmente;

(b) hará que los sistemas electrónicos sean accesibles para los usuarios de sus aduanas;

(c) permitirá la remisión y procesamiento electrónico de información y datos antes del arribo de la mercancía, a fin de permitir su despacho de conformidad con lo señalado en el Artículo 4.2;

(d) empleará sistemas electrónicos y/o automatizados para el análisis y gestión de riesgos;

- (e) trabajará en el desarrollo de sistemas electrónicos compatibles entre las autoridades aduaneras de las Partes, a fin de facilitar el intercambio de datos de comercio internacional entre ellas; y
- (f) trabajará para desarrollar el conjunto de elementos y procesos de datos comunes de acuerdo con el Modelo de Datos Aduaneros de la Organización Mundial de Aduanas, y las recomendaciones y lineamientos conexos de la Organización Mundial de Aduanas (en adelante OMA).”

72. Canada – Ukraine RTA (in force since 01 Aug. 2017):

“Chapter 4: Trade facilitation

(...) Article 4.7: Automation

1. Each Party shall use information **technologies** that expedite its domestic procedures for the release of goods in order to facilitate trade, including trade between the Parties.

2. Each Party shall:

(a) endeavour to make available electronically customs forms that are required for the import or export of goods;

(b) allow, subject to its law, those customs forms to be submitted in electronic format; and

(c) if possible, provide for the electronic exchange of information with its trading community through its customs authority.

3. Each Party shall endeavour to:

(a) develop or maintain fully interconnected single window systems to facilitate a single electronic submission of information required by customs and non-customs legislation for cross-border movements of goods; and

(b) develop a set of data elements and processes in accordance with the WCO Data Model and related WCO recommendations and guidelines.

4. The Parties shall endeavour to cooperate on the development of interoperable electronic systems, taking account of the work at the WCO, in order to facilitate trade between the Parties.”

73. EU – Canada RTA (in force since 21 Sep. 2017):

“CHAPTER SIX

Customs and trade facilitation

(...) Article 6.8

Automation

1. Each Party shall use information **technologies** that expedite its procedures for the release of goods in order to facilitate trade, including trade between the Parties. (...)”

74. El Salvador – Ecuador RTA (in force since 16 Nov. 2017):

“Capítulo V

Procedimientos Aduaneros y Facilitación del Comercio

(...) Artículo V.3: Automatización

1. Cada Parte procurará adoptar el uso de **tecnologías** de la información que permitan procedimientos expeditos en el despacho de mercancías. Al instalar las aplicaciones informáticas, cada Parte deberá, en la medida de lo posible, tomar en cuenta las normas o estándares internacionales.

2. Cada Parte adoptará o mantendrá sistemas informáticos accesibles, con el objeto de que los usuarios autorizados por la autoridad aduanera puedan transmitir sus declaraciones.”

75. Ukraine – Israel RTA (in force since 01 Jan. 2021):

“ ARTICLE 3.2: TRADE FACILITATION

1. The Parties shall apply their respective customs laws and procedures in a transparent, consistent, fair and predictable manner in order to facilitate the free flow of trade in accordance with this Agreement.

2. Pursuant to paragraph 1, the Parties shall:
 - (a) simplify their customs procedures to the greatest extent possible;
 - (b) make use of information and communications **technology** in their customs procedures; and
 - (c) to the extent possible, provide for advance electronic submission and processing of information before the physical arrival of goods to enable the quick release of goods upon their arrival.
3. The Parties shall endeavour to improve trade facilitation by mutual consultations and exchange of information between their respective customs authorities. »

76. United Kingdom – Türkiye RTA (in force since 01 Jan. 2021):

“ CHAPTER 3
 CUSTOMS AND TRADE FACILITATION
 (...) ARTICLE 3.3
 Objectives and principles
 (...) 2. The Parties recognise the importance of customs and trade facilitation in the evolving global trading environment and will put in place customs arrangements that, where practicable, make use of all available facilitative arrangements and **technologies**.

ARTICLE 3.5
 Data, documentation and automation
 (...) 2. Each Party shall promote the development and use of advanced systems, including those based on information and communications **technology**, to facilitate the exchange of electronic data between traders or operators and its customs authority and other trade-related agencies. This includes by: (...)”

77. India - Mauritius RTA (in force since 01 Apr. 2021):

“ ARTICLE 4.6: AUDIT, CERTIFICATION, AND IMPORT CHECKS
 3. When conducting Certification, the Parties agree that:
 (a) Where certification is required for trade in a product, the importing Party shall ensure such certification is applied, in meeting its SPS objectives, only to extent necessary to protect human, animal and plant life or health.
 (b) In applying certification requirements, each Party shall take into account relevant decisions from the WTO SPS Committee and international standards, guidelines and recommendations.
 (c) The Parties shall promote the implementation of electronic certification and other **technologies** to facilitate trade. (...) »

5.2.2.11 In provisions on rules of origin

The selected excerpts of the 14 RTAs that mention “technology” or its variations in provisions on rules of origin are transcribed below for ease of reference, in chronological order by date of entry into force.

1. Andean Community (CAN) RTA (in force since 25 May 1988):

“Chapter X: Origin
 Article 113. It shall be the General Secretariat’s responsibility to establish the specific requirements of origin for the products requiring so. When an Industrial Integration Program calls for setting specific requirements, the General Secretariat shall decide on them as the corresponding program is being approved.

Within the year following the establishment of a specific requirement, the Member Countries may request its review by the General Secretariat, which must give its opinion summarily

If a Member Country so requests it, the Commission shall examine those requirements and make a final decision within six to twelve months after having been set by the General Secretariat.

The General Secretariat may, at any time, either on its own initiative or at the request of a party, set or modify said requirements in order to adjust them to the economic and **technological** progress of the Subregion.”

2. Singapore – Australia RTA (in force since 28 Jul. 2003):

“03 RULES OF ORIGIN AND ORIGIN PROCEDURES

(...) ARTICLE 31

Consultation on Rules of Origin and Origin Procedures

(...) 2. The Parties shall consult to discuss possible amendments or modifications to this Chapter and its Annexes, taking into account developments in **technology**, production processes or other related matters.”

3. United States – Singapore RTA (in force since 01 Jan. 2004):

“CHAPTER 3: RULES OF ORIGIN

SECTION C: CONSULTATION AND MODIFICATIONS ARTICLE 3.18:
CONSULTATION AND MODIFICATIONS

1. The Parties shall consult and cooperate to ensure that this Chapter is applied in an effective and uniform manner.

2. The Parties shall consult regularly to discuss necessary amendments to this Chapter and its Annexes, taking into account developments in **technology**, production processes, and other related matters, pursuant to Article 20.3 (Consultations).”

4. Jordan – Singapore RTA (in force since 22 Aug. 2005):

“CHAPTER 3: RULES OF ORIGIN

SECTION D: CONSULTATIONS, MODIFICATIONS AND APPLICATION

Article 3.21

Consultations, Modifications and Application

(...) 2. The Parties shall consult as provided in Article 8.1 to discuss necessary amendments to this Chapter and Annex 3A, taking into account developments in **technology**, production processes, and other related matters.”

5. United States – Morocco RTA (in force since 01 Jan. 2006):

“CHAPTER FIVE RULES OF ORIGIN

(...) ARTICLE 5.12: CONSULTATIONS AND MODIFICATIONS

(...) 2. The Parties may establish ad hoc working groups, or a subcommittee of the Joint Committee established pursuant to Article 19.2 (Joint Committee), to consider any matter related to this Chapter (including Annex 5-A). On request of a Party, the Parties may direct a working group or subcommittee to review operation of this Chapter (including Annex 5-A) and develop recommendations for amending them in the light of pertinent developments, including changes in **technology** and production processes, and other relevant factors.”

6. Korea - Singapore RTA (in force since 02 Mar. 2006):

“CHAPTER 4 RULES OF ORIGIN

(...) ARTICLE 4.18 : CONSULTATIONS AND MODIFICATIONS

(...) 2. The Parties shall consult to review the rules of origin and discuss necessary amendments to this Chapter and its Annexes, as provided in Article 22.1 or upon the request of a Party, taking into account developments in **technology**, production

processes, and other related matters including the recommended amendments to the Harmonized System.”

7. United States – Bahrain RTA (in force since 01 Aug. 2006):

“CHAPTER FOUR RULES OF ORIGIN

(...) ARTICLE 4.12: CONSULTATIONS AND MODIFICATIONS

(...) 2. The Parties may establish ad hoc working groups, or a subcommittee of the Joint Committee established pursuant to Article 18.2 (Joint Committee), to consider any matter related to this Chapter (including Annex 4-A). On request of a Party, the Parties may direct a working group or subcommittee to review operation of this Chapter (including Annex 4-A) and develop recommendations for amendments in the light of any pertinent developments, including changes in **technology** and production processes, and other relevant factors.”

8. EU – Pacific States RTA (in force since 20 Dec. 2009):

“ PART II

TRADE IN GOODS

(...) CHAPTER 1 – Customs duties

Article 8 – Rules of origin

For the purposes of this Chapter, ‘originating’ means qualifying under the rules of origin set out in Protocol II to this Agreement. In the period of the five years following the entry into force of this Agreement the Parties shall review the operation of these provisions, with a view to further simplifying the concepts and methods used for the purpose of determining origin in the light of the development needs of the Pacific States. In such review, full consideration shall be given to providing certainty for investors, the development of **technologies** and production processes and all other factors, including on-going reforms of rules of origin and the establishment of appropriate mechanisms for administrative cooperation between the Parties and the Pacific States as the case may be, which may require modifications to the provisions of this Protocol. Not later than one year before the end of this period, the Parties shall open negotiations on the Protocol with a view to modifying or replacing it. Any such modification or replacement shall be effected by a decision of the Trade Committee.

9. Korea - India RTA (in force since 01 Jan. 2010):

“CHAPTER THREE RULES OF ORIGIN

(...) ARTICLE 3.17: CONSULTATIONS AND MODIFICATIONS

(...) 2. Pursuant to Article 15.2.2(c) (Review), the Parties shall consult to review, no later than three years after the date of entry into force of this Agreement, the rules of origin and discuss necessary amendments or modifications to this Chapter and its Annexes, including Article 3.4.1 and Product Specific Rules provided in Annex 3-A, taking into account developments in **technology**, production processes, and other related matters including the recommended amendments to the HS.”

10. EU - Eastern and Southern Africa States²⁷² RTA (in force since 14 May 2012):

“Article 13

Rules of origin

For the purposes of this Chapter, ‘originating’ means qualifying under the rules of origin set out in Protocol 1 to this Agreement. For the purposes of the comprehensive EPA, and during the period between the entry into force of this agreement and the entry into force of the comprehensive EPA, the Parties shall review the provisions of this Protocol with a view to their further simplification. In such review the Parties shall take into account the development needs of the ESA States and development of

²⁷² According to the WTO RTAs Database, the Eastern and Southern Africa States abovementioned are: Mauritius; Seychelles; Zimbabwe.

technologies, production processes and all other factors, including on-going reforms of rules of origin, which may require modifications to the provisions of this Protocol. Any such modifications shall be effected by a decision of the EPA Committee.”

11. EU – Cameroon (in force since 04 Aug. 2014):

“ Article 13

Rules of origin

(...) 3. Not later than three years after the date of this Agreement's entry into force, the Parties shall review the provisions in force governing the rules of origin, with a view to simplifying the concepts and methods used for the purpose of determining origin in the light of Central Africa's development goals. As part of this review, the Parties shall take into account **technological** development, production processes and all other factors including reforms under way in relation to rules of origin which could require amendments to the negotiated reciprocal regime. Any amendment or replacement shall be effected by decision of the EPA Committee. »

12. EU – Côte d'Ivoire RTA (in force since 03 Sept. 2016):

“Article 14

Rules of origin

(...) 3. At the latest three years after the date of entry into force of this Agreement, the Parties shall revise the provisions in force governing the rules of origin with the common aim of simplifying the concepts and methods used to determine origin in the light of the development objectives of Côte d'Ivoire and in line with those of West Africa. In the context of this revision, the Parties shall take account of **technological** development, production procedures and all other factors, including current reforms of the rules of origin which could require consequent amendments to the negotiated reciprocal regime. All amendments or replacements shall be made pursuant to a decision by the EPA Committee.”

13. United Kingdom – Pacific States (in force since 01 Jan. 2021):

“Article 8

Rules of origin

For the purposes of this Chapter, ‘originating’ means qualifying under the rules of origin set out in Protocol II to this Agreement.

In the period of the five years following the entry into force of this Agreement the Parties shall review the operation of these provisions, with a view to further simplifying the concepts and methods used for the purpose of determining origin in the light of the development needs of the Pacific States. In such review, full consideration shall be given to providing certainty for investors, the development of **technologies** and production processes and all other factors, including on-going reforms of rules of origin and the establishment of appropriate mechanisms for administrative cooperation between the Parties and the Pacific States as the case may be, which may require modifications to the provisions of this Protocol. Not later than one year before the end of this period, the Parties shall open negotiations on the Protocol with a view to modifying or replacing it. Any such modification or replacement shall be effected by a decision of the Trade Committee. »

14. United Kingdom - Ghana (in force since 05 Mar. 2021):

“ FINAL PROVISIONS

Article 41

Revision and application of rules of origin

1. In accordance with the provisions of Article 73 of this Agreement, the TPA Committee may, whenever requested by Ghana or the UK, examine the application of the provisions of this Protocol, in particular those related to the implementation of the registered exporters system and their economic effects with a view to adapting or

amending them, as necessary. The TPA Committee shall take account, among other factors, of the impact of **technological** developments on the rules of origin.»

5.2.2.12 *In provisions on Telecommunications*

The selected excerpts of the 28 RTAs that mention “technology” or its variations in provisions on telecommunications are transcribed below for ease of reference, in chronological order by date of entry into force.

1. EU – Palestine RTA (in force since 01 Jul. 1997):

“TITLE II
ECONOMIC COOPERATION AND SOCIAL DEVELOPMENT
Article 47 – Information infrastructure and telecommunications
Cooperation shall aim at stimulating economic and social development as well as developing an information society .
The priority areas of cooperation will be:
(...) — to allow for information exchange on standardization, conformance testing, and certification in information and communications **technologies.**”

2. EU – Tunisia RTA (in force since 01 Mar. 1998):

“TITLE V
ECONOMIC COOPERATION
Article 56
Telecommunications and information **technology**
Cooperation shall focus on:
(a) telecommunications in general;
(b) standardisation, conformity testing and certification for information **technology** and telecommunications;
(c) dissemination of new information **technologies**, particularly in relation to networks and the interconnection of networks (ISDN — integrated services digital networks — and EDI — electronic data interchange);
(d) stimulating research on and development of new communication and information **technology** facilities to develop the market in equipment, services and applications related to information **technology** and to communications, services and installations.”

3. EU – South Africa RTA (in force since 01 Jan. 2000):

“TITLE IV
ECONOMIC COOPERATION
Article 55 – Information society telecommunications and information **technology**
1. The Parties agree to cooperate in the area of information and communication **technology** (ICT) which they consider as key sectors of modern society and which are vital to economic and social development and to the development of an information society. Communication in this context encompasses post, broadcasting, telecommunications, information **technologies**. The aim of cooperation shall be to:
(a) improve the access of South African public and private entities to means of communications, electronics and information **technologies** through support to the development of infrastructural networks, human resources and appropriate information society policies in South Africa;
(b) support cooperation between the countries of the southern African region in this area, in particular in the context of satellite **technology**;

(c) address the challenges of globalisation, new **technologies**, institutional and sector restructuring, and the developing gap in basic information services and in advanced services.”

4. EU – Morocco RTA (in force since 01 Mar. 2000):

“TITLE V – ECONOMIC COOPERATION

Article 56

Telecommunications and information **technology**

Cooperation shall focus on:

- (a) telecommunications in general;
- (b) standardisation, conformity testing and certification for information **technology** and telecommunications;
- (c) dissemination of new information **technologies**, particularly in relation to networks and the interconnection of networks (ISDN integrated services digital networks and EDI electronic data interchange);
- (d) stimulating research on and development of new communication and information **technology** facilities to develop the market in equipment, services and applications related to information **technology** and to communications, services and installations.”

5. EU – Israel RTA (in force since 01 Jun. 2000):

“Article 52

Information infrastructures and telecommunications

The Parties shall promote cooperation in the development of information infrastructures and telecommunications to their mutual benefit. Cooperation shall focus primarily on pursuing actions related to research and **technological** development, harmonisation of standards and modernisation of **technology**.”

6. EU – Jordan RTA (in force since 01 May 2002):

“Article 73

Information infrastructures and telecommunications

Cooperation shall focus on:

- (a) telecommunications in general;
- (b) standardisation, conformity testing and certification for information **technology** and telecommunications;
- (c) dissemination of new information **technologies**, particularly in relation to networks and the interconnection of networks (ISDN (integrated services digital networks) and EDI (electronic data interchange));
- (d) stimulating research on and development of new communication and information **technology** facilities to develop the market in equipment, services and applications related to information **technology** and to communications, services and installations.”

7. EU – Lebanon RTA (in force since 01 Mar. 2003):

“Article 53

Information society and telecommunications

1. The Parties recognise that information and communication **technologies** constitute a key element of modern society, vital to economic and social development, and a cornerstone of the emerging information society.

2. Cooperation in this field shall aim at:

- (a) a dialogue on the various aspects of the information society, including telecommunications policies;
- (b) exchanges of information and technical assistance on regulatory matters, standardisation, conformity tests and certification as regards information **technology** and telecommunications **technology**;
- (c) dissemination of new information and telecommunications **technology**, and of updated facilities for advanced communications, information services and **technology**;

- (d) promotion and implementation of joint projects for research, technical development and industrial applications in information **technologies**, communications, telematics and the information society;
- (e) the participation of Lebanese organisations in pilot projects and European programmes within the established frameworks;
- (f) interconnection and interoperability between Community telematic networks and services and those of Lebanon;
- (g) a dialogue on regulatory cooperation on international services, including aspects relating to protection of data and privacy.”

8. Singapore – Australia RTA (in force since 28 Jul. 2003):

“10 TELECOMMUNICATIONS SERVICES

(...) ARTICLE 11

International Mobile Roaming

1. The Parties shall endeavour to cooperate on promoting transparent and reasonable rates for international mobile roaming services that can help promote the growth of trade between the Parties and enhance consumer welfare.
2. A Party may choose to take steps to enhance transparency and competition with respect to international mobile roaming rates and **technological** alternatives to roaming services, such as:
 - (a) ensuring that information regarding retail rates is easily accessible to consumers; and
 - (b) minimising impediments to the use of **technological** alternatives to roaming, whereby consumers when visiting the territory of a Party from the territory of the other Party can access telecommunications services using the device of their choice.

ARTICLE 15

Flexibility in the Choice of **Technology**

1. Neither Party shall prevent suppliers of public telecommunications services from choosing the **technologies** they wish to use to supply their services, subject to requirements necessary to satisfy legitimate public policy interests, provided that any measure restricting that choice is not prepared, adopted or applied in a manner that creates unnecessary obstacles to trade. For greater certainty, a Party adopting those measures shall do so consistent with Article 4 (Transparency).
2. When a Party finances the development of advanced networks,¹⁵ it may make its financing conditional on the use of **technologies** that meet its specific public policy interests.”

9. EU – Chile RTA (Goods: in force since 01 Feb. 2003; Services: in force since 01 Mar. 2005):

“Article 37

Information society, information **technology** and telecommunications

1. Information **technology** and communications are key sectors in a modern society and are of vital importance for economic and social development and the smooth transition to the information society.
2. Cooperation in this area shall aim in particular to promote:
 - (...) (d) dissemination of new information and communication **technologies**;
 - (e) joint research projects on information and communication **technologies** and pilot projects in the field of information society applications;
 - (...) (g) exchange and dissemination of experiences from government initiatives which apply information **technologies** in their relationship with society.”

10. United States – Chile RTA (in force since 01 Jan. 2004):

“Chapter Thirteen Telecommunications

(...) Article 13.14: Flexibility in the Choice of **Technologies**

Each Party shall endeavor to not prevent suppliers of public telecommunications services from having the flexibility to choose the **technologies** that they use to supply their services, including commercial mobile wireless services.”

11. EU – Egypt RTA (in force since 01 Jun. 2004):

“Article 52

Information society and telecommunications

The Parties recognise that information and communication **technologies** constitute a key element of modern society, vital to economic and social development and a cornerstone of the emerging information society.

The cooperation activities between the Parties in this field shall aim at :

— a dialogue on issues related to the different aspects of the information society, including telecommunications policies,

— the exchanges of information and eventual technical assistance with regulatory matters, standardisation, conformity testing and certification in relation to information **technologies** and telecommunications, (...)”

12. United States - Australia RTA (in force since 01 Jan. 2005):

“CHAPTER TWELVE TELECOMMUNICATIONS

Section D : Other Measures

ARTICLE 12.15 : FLEXIBILITY IN THE CHOICE OF **TECHNOLOGY**

Neither Party may prevent suppliers of public telecommunications services or suppliers of value-added services from choosing the **technologies** they wish to use to supply their services, including packet-based services and commercial mobile wireless services, subject to requirements necessary to satisfy legitimate public policy interests.”

13. United States – Morocco RTA (in force since 01 Jan. 2006):

“CHAPTER THIRTEEN TELECOMMUNICATIONS

(...) ARTICLE 13.14: FLEXIBILITY IN THE CHOICE OF **TECHNOLOGIES**

Neither Party may prevent suppliers of public telecommunications services from choosing the **technologies** that they use to supply their services, including commercial mobile wireless services, except that a Party shall be free to establish and apply spectrum and frequency management policies and other measures necessary to satisfy legitimate public policy interests, such as a requirement to comply with technical specifications and national frequency tables.”

14. Dominican Republic - Central America - United States Free Trade Agreement (CAFTA-DR) RTA (in force since 01 Mar. 2006):

“Chapter Thirteen Telecommunications

(...) Article 13.14: Flexibility in the Choice of **Technologies**

No Party may prevent suppliers of public telecommunications services from having the flexibility to choose the **technologies** that they use to supply their services, including commercial mobile wireless services, subject to requirements necessary to satisfy legitimate public policy interests.

III. Selective and Gradual Market Opening Commitments

2. Gradual and Selective Opening of Certain Telecommunications Services

(a) As provided in Annex I, Costa Rica shall allow telecommunications services providers of another Party, on a non-discriminatory basis, to effectively compete to supply directly to the customer, through the **technology** of their choice, the following telecommunications services in its territory: (...)

IV. Regulatory Principles

(...) 10. Flexibility in the Choice of **Technologies**

Costa Rica may not prevent suppliers of public telecommunications services from having the flexibility to choose the **technologies** that they use to supply their services, subject to requirements necessary to satisfy legitimate public policy interests.”

15. United States – Bahrain RTA (in force since 01 Aug. 2006):

“CHAPTER TWELVE TELECOMMUNICATIONS
(...) ARTICLE 12.14: FLEXIBILITY IN THE CHOICE OF **TECHNOLOGIES**
Neither Party may prevent suppliers of public telecommunications services from having the flexibility to choose the **technologies** that they use to supply their services, including commercial mobile wireless services, subject to requirements necessary to satisfy legitimate public policy interests.”

16. United States – Oman RTA (in force since 01 Jan. 2009):

“CHAPTER THIRTEEN TELECOMMUNICATIONS
(...) ARTICLE 13.14: FLEXIBILITY IN THE CHOICE OF **TECHNOLOGIES**
Neither Party may prevent suppliers of public telecommunications services from having the flexibility to choose the **technologies** that they use to supply their services, including commercial mobile wireless services, subject to requirements necessary to satisfy legitimate public policy interests.”

17. United States – Peru RTA (in force since 01 Feb. 2009):

“Chapter Fourteen Telecommunications
(...) Article 14.14: Flexibility in the Choice of **Technologies**
No Party may prevent suppliers of public telecommunications services from having the flexibility to choose the **technologies** that they use to supply their services, including commercial mobile wireless services, subject to requirements necessary to satisfy legitimate public policy interests.”

18. Chile – Australia RTA (in force since 09 Mar. 2009):

“Chapter 11 - Telecommunications
(...) Article
11.18: Flexibility in the Choice of **Technology**
Neither Party may prevent suppliers of public telecommunications networks or services from choosing the **technologies** they wish to use to supply their services, including packet-based services and commercial mobile wireless services, subject to requirements necessary to satisfy legitimate public policy interests, including protection of the technical integrity of public telecommunications networks and services.”

19. Canada – Colombia RTA (in force since 15 Aug. 2011):

“Chapter Ten - Telecommunications
(...) Article 1011: Flexibility in the Choice of **Technologies**
Neither Party may prevent suppliers of public telecommunications transport services from choosing the **technologies** that they use to supply their services subject to requirements necessary to satisfy legitimate public policy interests, including the use of protocols and interoperability.”

20. Korea – United States RTA (in force since 15 Mar. 2012):

“CHAPTER FOURTEEN TELECOMMUNICATIONS (...)
ARTICLE 14.21: MEASURES CONCERNING **TECHNOLOGIES** AND STANDARDS
1. The Parties recognize that measures concerning **technologies** and standards may contribute to legitimate public policy objectives, and that a regulatory approach that

affords suppliers of public telecommunications and value-added services the flexibility to choose the **technologies** that they use to supply their services may contribute to **innovation** in and development of information and communications **technologies**.

2. A Party may apply a measure that limits the **technologies** or standards that a supplier of public telecommunications or value-added services may use to supply its services, provided that the measure is designed to achieve a legitimate public policy objective and is not prepared, adopted, or applied in a manner that creates unnecessary obstacles to trade. Except with respect to technical requirements referred to in paragraph 3, each Party retains the right to define its own legitimate public policy objectives, recognizing that affording protection to domestic suppliers of telecommunications or value-added services or equipment is not a legitimate public policy objective.

3. A Party may apply a technical requirement¹⁶ that limits the **technologies** or standards that a supplier of public telecommunications or value-added services may use to supply its services in a particular spectrum frequency band, provided that the requirement is designed to ensure effective or efficient use of the spectrum (including with respect to preventing harmful interference), safeguard consumers' continued access to domestic or international networks or services,¹⁷ facilitate law enforcement, or protect human health or safety.

(...) 5. If a Party adopts a measure that mandates the use of a specific **technology** or standard, or otherwise limits a supplier's ability to choose the **technology** it uses, to supply a telecommunications or value-added service, it shall: (...)"

21. United States – Colombia RTA (in force since 15 May 2012):

“Chapter 14: Telecommunications

Article 14.14: Flexibility in the Choice of **Technologies**

No Party may prevent suppliers of public telecommunications services from having the flexibility to choose the **technologies** that they use to supply their services, including commercial mobile wireless services, subject to requirements necessary to satisfy legitimate public policy interests.”

22. United States – Panama RTA (in force since 21 Dec. 2012):

“Chapter Thirteen Telecommunications

(...) Article 13.14: Flexibility in the Choice of **Technologies**

Neither Party may prevent suppliers of public telecommunications services from having the flexibility to choose the **technologies** that they use to supply their services, including commercial mobile wireless services, subject to requirements necessary to satisfy legitimate public policy interests.”

23. Malaysia – Australia RTA (in force since 01 Jan. 2013):

“CHAPTER 9

TELECOMMUNICATIONS SERVICES

(...) SECTION C

Additional Obligations Relating to Major Suppliers of Public Telecommunications Networks or Services

(...) Article 9.26

Flexibility in the Choice of **Technologies**

1. Neither Party may prevent suppliers of public telecommunications networks or services from having the flexibility to choose the **technologies** that they use to supply their services, including commercial mobile wireless services and packet based services, subject to requirements necessary to satisfy legitimate public policy interests.

2. Notwithstanding paragraph 1, a Party may apply measures that limit the **technologies** or standards that a supplier of public telecommunications networks or services may use to supply its services, provided that its measures are designed to

achieve a legitimate public policy objective and are not prepared, adopted or applied in a manner that creates unnecessary obstacles to trade.

Article 9.29

Consultation

At the request of either Party, the Parties shall enter into consultations to discuss any issues arising under this Chapter, including issues of interpretation and issues arising due to **technological** or industry developments.”

24. EU – Colombia, Ecuador and Peru RTA (in force since 01 Mar. 2013):

“Section 4

Telecommunications services

(...) Article 142

Additional Obligations of Major Suppliers

(...) 2. Pursuant to subparagraph 1(d), major suppliers may be required to, inter alia: (...) (d) grant access to technical interfaces, protocols or other key **technologies**, which are indispensable for the interoperability of networks, and that allow, upon request, interconnection at additional points other than the network termination points offered to the majority of users, subject to charges that reflect the cost of construction of necessary additional facilities;”

25. Korea – Australia RTA (in force since 12 Dec. 2014):

“Chapter 9: Telecommunications

Section D: Other Measures

ARTICLE 9.22: MEASURES CONCERNING **TECHNOLOGIES** AND STANDARDS

1. Neither Party shall prevent suppliers of public telecommunications networks or services or value-added services from having the flexibility to choose the **technologies** that they use to supply their services.

2. Notwithstanding paragraph 1, a Party may apply a measure that limits the **technologies** or standards that a supplier of public telecommunications networks or services or value-added services may use to supply its services, provided that the measure is designed to satisfy a legitimate public policy objective and is not prepared, adopted or applied in a manner that creates unnecessary obstacles to trade.”

26. Korea – China RTA (in force since 20 Dec. 2015):

“CHAPTER 10

TELECOMMUNICATIONS

Article 10.14: Measures Concerning **Technologies** and Standards²⁶

1. Neither Party shall prevent suppliers of public telecommunications networks or services or value-added services from having the flexibility to choose the **technologies** that they use to supply their services.

2. Notwithstanding paragraph 1, a Party may apply a measure that limits the **technologies** or standards that a supplier of public telecommunications networks or services or value-added services may use to supply its services, provided that the measure is designed to satisfy a legitimate public policy objective and is not prepared, adopted or applied in a manner that creates unnecessary obstacles to trade.”

27. Peru – Australia RTA (in force since 11 Feb. 2020):

“ CHAPTER 12

TELECOMMUNICATIONS

Article 12.22: Flexibility in the Choice of **Technology**

1. Neither Party shall prevent suppliers of public telecommunications services from choosing the **technologies** they wish to use to supply their services, subject to requirements necessary to satisfy legitimate public policy interests, provided that any

measure restricting that choice is not prepared, adopted or applied in a manner that creates unnecessary obstacles to trade. For greater certainty, a Party adopting those measures shall do so consistent with Article 12.21.

2. When a Party finances the development of advanced networks, including broadband networks, it may make its financing conditional on the use of **technologies** that meet its specific public policy interests.”

28. Indonesia – Australia RTA (in force since 05 Jul. 2020):

“ CHAPTER 11
TELECOMMUNICATIONS
(...)

Article 11.23: Flexibility in the Choice of **Technology**

1. Neither Party shall prevent suppliers of public telecommunications services from choosing the **technologies** they wish to use to supply their services, subject to requirements necessary to satisfy legitimate public policy interests, provided that any measure restricting that choice is not prepared, adopted or applied in a manner that creates unnecessary obstacles to trade. For greater certainty, a Party adopting those measures shall do so in accordance with Article 11.22.

2. When a Party finances the development of advanced networks, including broadband networks, it may make its financing conditional on the use of **technologies** that meet its specific public policy interests. »

5.2.2.13 In provisions on market access

The selected excerpts of the 5 RTAs that mention “technology” or its variations in provisions on market access are transcribed below for ease of reference, in chronological order by date of entry into force.

1. Canada – Chile RTA (in force since 05 Jul. 1997):

“Part Two - Trade in Goods

Chapter C - National Treatment and Market Access for Goods

(...) Section 3: Bilateral Emergency Actions (Tariff Actions)

Subject to paragraphs 2 through 5 and during the transition period only, if, as a result of the reduction or elimination of a duty provided for in this Agreement, a textile or apparel good originating in the territory of a Party, or a good that has been integrated into the WTO and entered under a tariff preference level set out in Appendix 5.1, is being imported into the territory of the other Party in such increased quantities, in absolute terms or relative to the domestic market for that good, and under such conditions as to cause serious damage, or actual threat thereof, to a domestic industry producing a like or directly competitive good, the suspend the further reduction of any rate of duty provided for under this Agreement on the good; or increase the rate of duty on the good to a level not to exceed the lesser of:

- a. the most favoured nation (MFN) applied rate of duty in effect at the time the action is taken, an
- b. the MFN applied rate of duty in effect on the day immediately preceding the date of entry into force of this Agreement.

In determining serious damage, or actual threat thereof, the Party:

- a. shall examine the effect of increased imports on the particular industry, as reflected in changes in such relevant economic variables as output, productivity, utilization of capacity, inventories, market share, exports, wages, employment, domestic prices, profits and investment, none of which is necessarily decisive; and
- b. shall not consider changes in **technology** or consumer preference as factors supporting a determination of serious damage or actual threat thereof. (...)

2. Canada – Costa Rica RTA (in force since 01 Nov. 2002):

“Chapter III: National Treatment and Market Access of Goods

Annex III.1 – Textile and Apparel Goods

(...) Section 4: Bilateral Emergency Actions (Tariff Actions)

(...) 2. In determining serious damage, or actual threat thereof, the Party:

a. shall examine the effect of increased quantities of those imports on the state of the particular industry, as reflected in changes in such relevant economic variables as output, productivity, utilization of capacity, inventories, market share, exports, wages, employment, domestic prices, profits and investment, none of which, either alone or combined with other factors is necessarily decisive; and

b. shall not consider changes in **technology** or consumer preference as factors supporting a determination of serious damage or actual threat thereof.”

3. Dominican Republic - Central America - United States Free Trade Agreement (CAFTA-DR) RTA (in force since 01 Mar. 2006):

“Chapter Three

National Treatment and Market Access for Goods

(...) Article 3.23: Textile Safeguard Measures

(...) 2. In determining serious damage, or actual threat thereof, the importing Party:

(...) (b) shall not consider changes in **technology** or consumer preference as factors supporting a determination of serious damage or actual threat thereof.”

4. United States – Panama RTA (in force since 21 Dec. 2012):

“Chapter Three

National Treatment and Market Access for Goods

Article 3.24: Textile Safeguard Measures

(...) 2. In determining serious damage, or actual threat thereof, the importing Party:

(...) (b) shall not consider changes in **technology** or consumer preference as factors supporting a determination of serious damage or actual threat thereof.”

5. Peru – Australia RTA (in force since 11 Feb. 2020):

“ CHAPTER 2

NATIONAL TREATMENT AND MARKET ACCESS FOR GOODS

(...) Section C: Agriculture

(...) Article 2.18: Trade of Products of Modern Bio**technology**

1. The Parties confirm the importance of transparency, cooperation and exchanging information related to the trade of products of modern bio**technology**.

2. Nothing in this Article shall prevent a Party from adopting measures in accordance with its rights and obligations under the WTO Agreement or other provisions of this Agreement.

3. Nothing in this Article shall require a Party to adopt or modify its laws, regulations and policies for the control of products of modern bio**technology** within its territory.

4. Each Party shall, when available and subject to its laws, regulations and policies, make available publicly:

(a) any documentation requirements for completing an application for the authorisation of a product of modern bio**technology**;

(b) a summary of any risk or safety assessment that has led to the authorisation of a product of modern bio**technology**; and

(c) a list or lists of the products of modern bio**technology** that have been authorised in its territory.

5. Each Party shall designate and notify a contact point or contact points for the sharing of information on issues related to low level presence (LLP)² occurrences, in accordance with Article 26.5 (Contact Points) »

5.2.2.14 In provisions on government procurement

The selected excerpts of the 33 RTAs that mention “technology” or its variations in provisions on government procurement are transcribed below for ease of reference, in chronological order by date of entry into force.

1. New Zealand – Singapore RTA (in force since 01 Jan. 2001):

“PART 8: GOVERNMENT PROCUREMENT

Article 53 – Prohibition of Offsets

1 Government bodies shall not, in the qualification and selection of suppliers, goods and services, or in the evaluation of tenders and award of contracts, impose, seek or consider offsets in relation to government procurement from New Zealand or Singapore suppliers.

2 "Offsets in relation to government procurement" means measures used to encourage local development or improve the balance of payments accounts by requiring domestic content, licensing of **technology**, investment, counter-trade or similar requirements.”

2. Chile – Costa Rica (Chile - Central America) RTA (in force since 01 Feb. 2002):

“SEXTA PARTE CONTRATACIÓN PÚBLICA

CAPÍTULO 16 CONTRATACIÓN PÚBLICA

(...) Artículo 16.11 **Tecnología** de la información

1. Las Partes procurarán, en la medida de lo posible, utilizar medios electrónicos de comunicación que permitan la divulgación eficiente de la información en materia de contratación pública, en especial, aquella referida a las oportunidades de negocios ofrecidas por las entidades.

2. Con el objeto de alcanzar un mercado ampliado de contrataciones públicas, las Partes procurarán implementar un sistema electrónico de información e intermediación obligatorio para sus respectivas entidades. El objetivo principal de dicho sistema consistirá en la difusión de las oportunidades de negocios ofrecidas por las entidades.”

3. Chile - El Salvador (Chile - Central America) RTA (in force since 01 Jun. 2002):

“SEXTA PARTE CONTRATACIÓN PÚBLICA

CAPÍTULO 16 CONTRATACIÓN PÚBLICA

Artículo 16.11 **Tecnología** de la información

1. Las Partes procurarán, en la medida de lo posible, utilizar medios electrónicos de comunicación que permitan la divulgación eficiente de la información en materia de contratación pública, en especial, aquella referida a las oportunidades de negocios ofrecidas por las entidades.

2. Con el objeto de alcanzar un mercado ampliado de contrataciones públicas, las Partes procurarán implementar un sistema electrónico de información e intermediación obligatorio para sus respectivas entidades. El objetivo principal de dicho sistema consistirá en la difusión de las oportunidades de negocios ofrecidas por las entidades.”

4. EU – Chile RTA (Goods: in force since 01 Feb. 2003; Services: in force since 01 Mar. 2005):

“Article 156

Information **technology**

1. The Parties shall, to the extent possible, endeavour to use electronic means of communication to permit efficient dissemination of information on government procurement, particularly as regards tender opportunities offered by entities, while respecting the principles of transparency and non-discrimination.
2. With a view to improving access to government procurement markets, each Party shall endeavour to implement an electronic information system, which is compulsory for their respective entities.
3. The Parties shall encourage the use of electronic means for the transmission of offers.”

5. Japan – Mexico RTA (in force since 01 Apr. 2005):

“Chapter 11
Government Procurement
(...) Article 123 – Offsets
Each Party shall ensure that its entities do not, in the qualification and selection of suppliers, goods or services, in the evaluation of bids or the award of contracts, consider, seek or impose offsets, except as set out in the General Notes of Annex 16. For the purpose of this Article, offsets means conditions considered, sought or imposed by an entity prior to or in the course of its procurement process that encourage local development or improve its Party’s balance of payments accounts, by means of requirements of local content, licensing of **technology**, investment, counter-trade or similar requirements.”

6. Korea - Singapore RTA (in force since 02 Mar. 2006):

“CHAPTER 16 GOVERNMENT PROCUREMENT
(...) ARTICLE 16.5: INFORMATION **TECHNOLOGY** AND CO-OPERATION
1. The Parties shall, to the extent possible, endeavour to use electronic means of communication to permit efficient dissemination of information on government procurement, particularly as regards tender opportunities offered by entities, while respecting the principles of transparency and non-discrimination.”

7. Chile – Japan RTA (in force since 03 Sept. 2007):

“Chapter 12
Government Procurement
Article 139
Prohibition of Offsets
Each Party shall ensure that its entities do not, in the qualification and selection of suppliers, goods or services, or in the evaluation of tenders and award of contracts, impose, seek or consider offsets. For the purposes of this Article, offsets means conditions considered, sought or imposed by an entity prior to or in the course of its procurement process that encourage local development or improve its Party’s balance of payments accounts, by means of requirements of local content, licensing of **technology**, investment, counter-trade or similar requirements.”

8. Chile – Honduras (Chile – Central America) RTA (in force since 19 Jul. 2008):

“SEXTA PARTE CONTRATACIÓN PÚBLICA
CAPÍTULO 16 CONTRATACIÓN PÚBLICA
(...) Artículo 16.11 **Tecnología** de la información
1. Las Partes procurarán, en la medida de lo posible, utilizar medios electrónicos de comunicación que permitan la divulgación eficiente de la información en materia de contratación pública, en especial, aquella referida a las oportunidades de negocios ofrecidas por las entidades.
2. Con el objeto de alcanzar un mercado ampliado de contrataciones públicas, las Partes procurarán implementar un sistema electrónico de información e intermediación obligatorio para sus respectivas entidades. El objetivo principal de

dicho sistema consistirá en la difusión de las oportunidades de negocios ofrecidas por las entidades.”

9. Panama – Costa Rica (Panama – Central America) RTA (in force since 23 Nov. 2008):

“SEXTA PARTE
CONTRATACIÓN PÚBLICA
CAPÍTULO 16
CONTRATACIÓN PÚBLICA

Artículo 16.10 **Tecnología** de la información

1. Las Partes procurarán, en la medida de lo posible, utilizar medios electrónicos de comunicación que permitan la divulgación eficiente de la información en materia de contratación pública, en especial, aquélla referida a las oportunidades de negocios ofrecidas por las entidades.”

10. Panama – Honduras (Panama – Central America) RTA (in force since 09 Jan. 2009):

“SEXTA PARTE
CONTRATACIÓN PÚBLICA
CAPÍTULO 16
CONTRATACIÓN PÚBLICA

(...) Artículo 16.10 **Tecnología** de la información

1. Las Partes procurarán, en la medida de lo posible, utilizar medios electrónicos de comunicación que permitan la divulgación eficiente de la información en materia de contratación pública, en especial, aquélla referida a las oportunidades de negocios ofrecidas por las entidades.

2. Con el objeto de alcanzar un mercado ampliado de contrataciones públicas, las Partes procurarán implementar un sistema electrónico de información e intermediación para sus respectivas entidades. El objetivo principal de dicho sistema consistirá en la difusión de las oportunidades de negocios ofrecidas por las entidades.

3. No obstante lo dispuesto en los párrafos 1 y 2, las Partes realizarán los procedimientos de difusión establecidos en sus respectivas legislaciones vigentes de las oportunidades de negocios ofrecidas por las entidades en materia de contratación pública.”

11. Canada – Peru RTA (in force since 01 Aug. 2009):

“Chapter Fourteen - Government Procurement

(...)

Article 1416: Information **Technology**

The Parties shall, to the extent possible, endeavour to use electronic means of communication to permit efficient dissemination of information on government procurement, particularly as regards tender opportunities offered by procuring entities, while respecting the principles of transparency and non-discrimination.”

12. Panama – Nicaragua RTA (in force since 21 Nov. 2009):

“SEXTA PARTE
CONTRATACIÓN PÚBLICA
CAPÍTULO 16
CONTRATACIÓN PÚBLICA

(...) Artículo 16.10 **Tecnología** de la información

1. Las Partes procurarán, en la medida de lo posible, utilizar medios electrónicos de comunicación que permitan la divulgación eficiente de la información en materia de contratación pública, en especial, aquélla referida a las oportunidades de negocios ofrecidas por las entidades.

2. Con el objeto de alcanzar un mercado ampliado de contrataciones públicas, las Partes procurarán implementar un sistema electrónico de información e intermediación para sus respectivas entidades. El objetivo principal de dicho sistema consistirá en la difusión de las oportunidades de negocios ofrecidas por las entidades.
3. No obstante lo dispuesto en los párrafos 1 y 2, las Partes realizarán los procedimientos de difusión establecidos en sus respectivas legislaciones vigentes de las oportunidades de negocios ofrecidas por las entidades en materia de contratación pública.”

13. Chile – Guatemala (Chile – Central America) RTA (in force since 23 Mar. 2010):

“SEXTA PARTE CONTRATACIÓN PÚBLICA
CAPÍTULO 16 CONTRATACIÓN PÚBLICA
(...) Artículo 16.11 **Tecnología** de la información

1. Las Partes procurarán, en la medida de lo posible, utilizar medios electrónicos de comunicación que permitan la divulgación eficiente de la información en materia de contratación pública, en especial, aquélla referida a las oportunidades de negocios ofrecidas por las entidades.
2. Con el objeto de alcanzar un mercado ampliado de contrataciones públicas, las Partes procurarán implementar un sistema electrónico de información e intermediación obligatorio para sus respectivas entidades. El objetivo principal de dicho sistema consistirá en la difusión de las oportunidades de negocios ofrecidas por las entidades.”

14. Colombia – EFTA²⁷³ RTA (in force since 01 Jul. 2011):

“CHAPTER 7 GOVERNMENT PROCUREMENT
(...) Use of Electronic Means

3. When conducting covered procurement by electronic means, a procuring entity shall:
 - (a) ensure that the procurement is conducted using information **technology** systems and software, including those related to authentication and encryption of information, that are generally available and interoperable with other generally available information **technology** systems and software; and”

15. Peru – EFTA²⁷⁴ RTA (in force since 01 Jul. 2011):

“CHAPTER 7
GOVERNMENT PROCUREMENT
ARTICLE 7.5
Information **Technology**

1. The Parties shall, to the extent possible, endeavour to use electronic means of communication to permit efficient dissemination of information on government procurement, particularly as regards tender opportunities offered by entities, while respecting the principles of transparency and non-discrimination.
2. When conducting covered procurement by electronic means, a procuring entity shall:
 - (a) ensure that the procurement is conducted using information **technology** systems and software, including those related to authentication and encryption of information, that are generally available and inter-operable with other generally available information **technology** systems and software; and

²⁷³ According to the WTO RTAs Database, EFTA in this case comprises: Iceland; Liechtenstein; Norway; Switzerland.

²⁷⁴ According to the WTO RTAs Database, EFTA in this case comprises: Iceland; Liechtenstein; Norway; Switzerland.

(b) maintain mechanisms that ensure the integrity of requests for participation and tenders, including establishment of the time of receipt and the prevention of inappropriate access. (...)

ARTICLE 7.8

Offsets

(...) 2. For the purposes of this Chapter, “offsets” means any condition or undertaking that encourages local development or improves a Party's balance-of-payments accounts, such as the use of domestic content, the licensing of **technology**, investment, counter- trade and similar actions or requirements.”

16. Canada – Colombia RTA (in force since 15 Aug. 2011):

“Chapter Fourteen - Government Procurement

(...) Article 1416: Information **technology**

The Parties shall, to the extent possible, endeavour to use electronic means of communication to permit efficient dissemination of information on government procurement, particularly as regards tender opportunities offered by procuring entities, while respecting the principles of transparency and non-discrimination.”

17. Japan – Peru RTA (in force since 01 Mar. 2012):

“Chapter 10 Government Procurement

Article 148

Prohibition of Offsets

(...) 2. For the purposes of this Article, offsets means conditions considered, sought or imposed by a procuring entity prior to or in the course of its procurement process that encourage local development or improve its Party's balance of payments accounts, by means of requirements of local content, licensing of **technology**, investment, counter-trade or similar requirements.”

18. Korea – United States RTA (in force since 15 Mar. 2012):

“CHAPTER SEVENTEEN GOVERNMENT PROCUREMENT

(...) ARTICLE 17.4: GENERAL PRINCIPLES

Use of Electronic Means

1. When conducting covered procurement by electronic means, a procuring entity shall:

(a) ensure that the procurement is conducted using information **technology** systems and software, including those related to authentication and encryption of information, that are generally available and interoperable with other generally available information **technology** systems and software; and (...)

ARTICLE 17.10: GOVERNMENT PROCUREMENT WORKING GROUP

1. The Parties shall establish a Working Group on Government Procurement comprising representatives of each Party.

2. The Working Group shall meet, as mutually agreed or upon request of a Party, to:

(a) consider issues regarding government procurement that a Party refers to it, including issues related to information **technology**; and

(b) exchange information relating to the government procurement opportunities in each Party.”

19. Peru – Panama RTA (in force since 01 May 2012):

“Capítulo 10 Contratación Pública

(...) Uso de Medios Electrónicos

3. Cuando la contratación pública cubierta sea realizada a través de medios electrónicos, una entidad contratante deberá:

(a) asegurar que la contratación pública sea llevada a cabo utilizando sistemas de **tecnología** de la información y programas informáticos, incluyendo los relacionados

con la autenticación y codificación criptográfica de información, que sean accesibles en general y compatibles con otros sistemas de **tecnología** de la información y programas informáticos accesibles en general; y (...)"

20. EFTA – Ukraine RTA (in force since 01 Jun. 2012):

“CHAPTER 6
GOVERNMENT PROCUREMENT
(...) ARTICLE 6.9
Information **Technology**

1. The Parties shall, to the extent possible, endeavour to use electronic means of communication to permit efficient dissemination of information on government procurement, particularly as regards tender opportunities offered by entities, while respecting the principles of transparency and non-discrimination.

2. When conducting covered procurement by electronic means, a procuring entity shall:

(a) ensure that the procurement is conducted using information **technology** systems and software, including those related to authentication and encryption of information, that are generally available and interoperable with other generally available information **technology** systems and software; and

(b) maintain mechanisms that ensure the integrity of requests for participation and tenders, including establishment of the time of receipt and the prevention of inappropriate access.”

21. Chile – Nicaragua (Chile – Central America) RTA (in force since 19 Oct. 2012):

“CAPÍTULO 16
CONTRATACIÓN PÚBLICA
Artículo 16.11 **Tecnología** de la información

1. Las Partes procurarán, en la medida de lo posible, utilizar medios electrónicos de comunicación que permitan la divulgación eficiente de la información en materia de contratación pública, en especial, aquélla referida a las oportunidades de negocios ofrecidas por las entidades.

2. Con el objeto de alcanzar un mercado ampliado de contrataciones públicas, las Partes procurarán implementar un sistema electrónico de información e intermediación obligatorio para sus respectivas entidades. El objetivo principal de dicho sistema consistirá en la difusión de las oportunidades de negocios ofrecidas por las entidades.”

22. EU – Colombia, Ecuador and Peru RTA (in force since 01 Mar. 2013):

“TITLE VI
GOVERNMENT PROCUREMENT
Article 172
Definitions

For the purposes of this Title:

(...) ‘offset’ means any condition or undertaking that encourages local development or improves balance-of-payments accounts of a Party, such as the use of domestic content, the licensing of **technology**, investment, counter-trade and similar action or requirement;

Article 175 General Principles
(...) Use of electronic means

5. When conducting covered procurement by electronic means, a procuring entity shall:

(a) ensure that the procurement is conducted using information **technology** systems and software, including those related to authentication and encryption of information, that are generally available and interoperable with other generally available information **technology** systems and software; and”

23. Canada – Panama RTA (in force since 01 Apr. 2013):

“Chapter sixteen: Government procurement

Article 16.17: Information **Technology**

The Parties, to the extent possible, shall endeavour to use electronic means of communication to efficiently disseminate information on government procurement, particularly regarding tender opportunities offered by procuring entities, while respecting the principles of transparency and non-discrimination.”

24. Costa Rica – Peru RTA (in force since 01 Jun. 2013):

“Capítulo 4

Facilitación del Comercio y Procedimientos Aduaneros

(...) Artículo 4.3: Automatización

1. Cada Parte se esforzará por usar **tecnología** de información que haga expeditos y eficientes los procedimientos para el despacho de mercancías. Al escoger la **tecnología** de información a ser utilizada para tal efecto, cada Parte: (...)

Capítulo 5

Cooperación y Asistencia Mutua en Asuntos Aduaneros

(...) Artículo 5.5: Cooperación y Asistencia Técnica

Cuando no contravenga su legislación, disposiciones y prácticas nacionales, las autoridades competentes deberán cooperar en asuntos aduaneros, incluyendo:

(...) (d) el intercambio de información acerca de nuevas **tecnologías**, métodos y procedimientos en la aplicación de la legislación aduanera; o

Capítulo 10 Contratación Pública

(...) Uso de Medios Electrónicos

3. Cuando la contratación pública cubierta sea realizada a través de medios electrónicos, una entidad contratante deberá:

(a) asegurar que la contratación pública sea llevada a cabo utilizando sistemas de **tecnología** de la información y programas informáticos, incluyendo los relacionados con la autenticación y codificación criptográfica de información, que sean accesibles en general y compatibles con otros sistemas de **tecnología** de la información y programas informáticos accesibles en general; y (...)”

25. EU – Central America²⁷⁵ RTA (in force since 01 Aug. 2013):

“Article 58

Cooperation and Technical Assistance on Government Procurement

The Parties recognise the importance of cooperation and technical assistance in the field of government procurement and agree to cooperate as follows:

(...) (b) upon request of a Party, provide capacity building and training, including training for the private sector on **innovative** means of competitive government procurement;

(...) (e) improvement of **technological** capabilities for public entities either in the Central, Sub-central or other procuring entities;

TITLE V

GOVERNMENT PROCUREMENT

Article 209

Introduction

(...) 2. For the purposes of this Title:

(...) (j) "offset" means any condition or undertaking that encourages local development or improves a Party's balance of payments accounts, such as the use of domestic content, the licensing of **technology**, investment, counter-trade and similar action or requirement;

²⁷⁵ According to the WTO RTAs Database, the signatories parties from Central America are: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

Article 211

General Principles

(...) Use of Electronic Means

4. If a procuring entity conducts a covered procurement by electronic means, it shall:

(a) ensure that the procurement is conducted using information **technology** systems and software, including those related to authentication and encryption of information, that are generally available and interoperable with other generally available information **technology** systems and software; and”

26. EU – Cameroon (in force since 04 Aug. 2014):

“ Public procurement

Article 59

Continuation of negotiations on public procurement

2. To achieve this objective, the Parties shall conclude negotiations by 1 January 2009 on a set of potential commitments on procurement, which shall include in particular the following:

(...) (d) measures to support capacities to implement these commitments, including making use of opportunities created by information **technologies**.”

27. EFTA – Central America (Costa Rica and Panama) RTA (in force since 19 Aug. 2014):

“ARTICLE 7.5

Use of Electronic Means

1. The Parties shall, to the extent possible, endeavour to use electronic means of communication to permit efficient dissemination of information on government procurement, particularly as regards tender opportunities offered by procuring entities, while respecting the principles of transparency and non-discrimination.

2. When conducting covered procurement by electronic means, a procuring entity shall:

(a) ensure that the procurement is conducted using information **technology** systems and software, including those related to authentication and encryption of information, that are generally available and interoperable with other generally available information **technology** systems and software; and (...)”

28. Hong Kong – Chile RTA (in force since 09 Oct. 2014):

“Article 5.7

Use of Automated Systems

The customs authority of each Party shall apply information **technology** to support customs operations where it is practicable, cost-effective and efficient, particularly in the paperless trading context, taking into account developments on this issue within the World Customs Organization.

Article 9.5

National Treatment and Non-Discrimination

(...) 3. A Party, including its entities, shall not consider, seek, or impose, at any stage of a procurement, conditions or measures used to encourage its development or improve the balance-of-payments accounts, such as the licensing of **technology**, investment requirements, counter-trade or other similar requirements.”

29. Eurasian Economic Union (EAEU) - Viet Nam RTA (in force since 05 Oct. 2016):

“ GOVERNMENT PROCUREMENT

ARTICLE 10.1 – Cooperation

(...) 2. The Parties shall cooperate for the purposes of improving transparency, promoting fair competition and the use of electronic **technologies** in the field of government procurement. »

30. Canada – Ukraine RTA (in force since 01 Aug. 2017):

“Chapter 10: Government procurement

(...) Article 10.5: General Principles

(...) Use of Electronic Means

3. If conducting covered procurement by electronic means, a procuring entity shall:

- (a) ensure that the procurement is conducted using information **technology** systems and software, including those related to authentication and encryption of information, that are generally available and interoperable with other generally available information **technology** systems and software; and
- (b) maintain mechanisms that ensure the integrity of requests for participation and tenders, including establishment of the time of receipt and the prevention of inappropriate access.”

31. EFTA – Georgia RTA (in force since 01 Sept. 2017):

“CHAPTER 8

GOVERNMENT PROCUREMENT

ARTICLE 8.5

Use of Electronic Means

1. The Parties shall, to the extent possible, endeavour to use electronic means of communication to permit efficient dissemination of information on government procurement, particularly as regards tender opportunities offered by entities, while respecting the principles of transparency and non-discrimination.

2. When conducting covered procurement by electronic means, a procuring entity shall:

- (a) ensure that the procurement is conducted using information **technology** systems and software, including those related to authentication and encryption of information, that are generally available and interoperable with other generally available information **technology** systems and software; and
- (b) maintain mechanisms that ensure the integrity of requests for participation and tenders, including establishment of the time of receipt and the prevention of inappropriate access.”

32. EU – Canada RTA (in force since 21 Sep. 2017):

“CHAPTER NINETEEN

Government procurement

(...) Article 19.4

General principles

(...) Use of Electronic Means

3. When conducting covered procurement by electronic means, a procuring entity shall:

- (a) ensure that the procurement is conducted using information **technology** systems and software, including those related to authentication and encryption of information, that are generally available and interoperable with other generally available information **technology** systems and software; and
- (b) maintain mechanisms that ensure the integrity of requests for participation and tenders, including establishment of the time of receipt and the prevention of inappropriate access.”

33. Peru – Australia RTA (in force since 11 Feb. 2020):

“ CHAPTER 14

GOVERNMENT PROCUREMENT

(...) Article 17.3: Principles

1. A Party may, in formulating or amending its laws and regulations, adopt measures necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and **technological** development, provided that such measures are consistent with the provisions of this Chapter.

2. Appropriate measures, provided that they are consistent with the provisions of this Chapter, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of **technology**

Article 20.2 Areas of Cooperation and Capacity Building

4. Cooperation and capacity building activities may include, but should not be limited to: dialogues, workshops, seminars, conferences, collaborative programmes and projects;

technical assistance to promote and facilitate capacity building and training; the sharing of best practices on policies and procedures; the exchange of experts, information and

technology; and the encouragement of private sector cooperation.»

5.2.2.15 *In provisions on Investment*

The selected excerpts of the 58 RTAs that mention “technology” or its variations in provisions on investment are transcribed below for ease of reference, in chronological order by date of entry into force.

1. EU – Palestine RTA (in force since 01 Jul. 1997):

“TITLE II

ECONOMIC COOPERATION AND SOCIAL DEVELOPMENT

Article 39

Investment promotion and investment

(...) Cooperation may also extend to the conception and implementation of projects demonstrating the effective acquisition and use of basic **technologies**, the use of standards, the development of human resources (e.g. in **technologies** and management) and the creation of jobs.”

2. Canada – Chile RTA (in force since 05 Jul. 1997):

“Appendix I: Chapter G – Investment

Section I – Investment

(...) Article G-06: Performance Requirements Endnote 4

1. Neither Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with the establishment, acquisition, expansion, management, conduct or operation of an investment of an investor of a Party or of a non-Party in its territory:

(...) (f) to transfer **technology**, a production process or other proprietary knowledge to a person in its territory, except when the requirement is imposed or the commitment or undertaking is enforced by a court, administrative tribunal or competition authority to remedy an alleged violation of competition laws or to act in a manner not inconsistent with other provisions of this Agreement; or (...)

2. A measure that requires an investment to use a **technology** to meet generally applicable health, safety or environmental requirements shall not be construed to be inconsistent with paragraph 1(f). For greater certainty, Articles G-02 and G-03 apply to the measure.”

3. Chile – Mexico RTA (in force since 01 Aug. 1999):

“CUARTA PARTE

INVERSIÓN, SERVICIOS Y ASUNTOS RELACIONADOS

Capítulo 9 – Inversión

(...) Artículo 9-07: Requisitos de desempeño

1. Ninguna Parte podrá imponer ni hacer cumplir cualquiera de los siguientes requisitos o hacer cumplir ningún compromiso u obligación, en relación con el establecimiento, adquisición, expansión, administración, conducción u operación de una inversión de un inversionista de una Parte o de un país no Parte en su territorio para:

(...) f) transferir a una persona en su territorio **tecnología**, un proceso productivo u otro conocimiento de su propiedad, salvo cuando el requisito se imponga o el compromiso u obligación se hagan cumplir por un tribunal judicial o administrativo o una autoridad de competencia para reparar una supuesta violación a las leyes en materia de competencia o para actuar de una manera que no sea incompatible con otras disposiciones de este Tratado; o (...)

2. La medida que exija que una inversión emplee una **tecnología** para cumplir con requisitos de salud, seguridad o ambiente de aplicación general, no se considerará incompatible con el párrafo 1(f). Para brindar mayor certeza, los artículos 9-03 y 9-04 se aplican a la citada medida.”

4. Japan – Singapore RTA (in force since 30 Nov. 2002):

“CHAPTER 8 – INVESTMENT

(...) Article 75 – Prohibition of Performance Requirements

1. Neither Party shall impose or enforce any of the following requirements as a condition for the establishment, acquisition, expansion, management, operation, maintenance, use or possession of investments in its territory of an investor of the other Party:

(...) (f) to transfer **technology**, a production process or other proprietary knowledge to a natural or legal person of the former Party, except when the requirement: (...)”

5. EU – Lebanon RTA (in force since 01 Mar. 2003):

“Article 47

Promotion and protection of investment

1. Cooperation shall aim at increasing the flow of capital, expertise and **technology** to Lebanon through, inter alia:

(...) 2. Cooperation may extend to the planning and implementation of projects demonstrating the effective acquisition and use of basic **technologies**, the use of standards, the development of human resources and the creation of jobs locally.”

6. Panama - El Salvador (Panama - Central America) RTA (in force since 11 Apr. 2003):

“CUARTA PARTE

INVERSIÓN, SERVICIOS Y ASUNTOS RELACIONADOS

CAPÍTULO 10

Sección A – Inversión

(...) Artículo 10.07 Requisitos de desempeño

(...) 6. En caso de que, a juicio de una Parte, la imposición por la otra Parte de alguno de los requisitos señalados a continuación afecte negativamente el flujo comercial o constituya una barrera significativa a la inversión de un inversionista de la Parte, el asunto será considerado por la Comisión:

(...) b) transferir a una persona en su territorio, **tecnología**, proceso productivo u otro conocimiento reservado, salvo cuando el requisito se imponga por un tribunal judicial o administrativo o autoridad competente para reparar una supuesta violación a la

legislación en materia de competencia o para actuar de una manera que no sea incompatible con otras disposiciones de este Tratado; o

c) actuar como el proveedor exclusivo de las mercancías que produzca para un mercado específico, regional o mundial.

7. La medida que exija que una inversión emplee una **tecnología** para cumplir con requisitos de salud, seguridad o medio ambiente de aplicación general, no se considerará incompatible con el párrafo 6(b). Para brindar mayor certeza, los Artículos 10.02 y 10.03 se aplican a la citada medida.”

7. Singapore – Australia RTA (in force since 28 Jul. 2003):

“08 INVESTMENT

ARTICLE 7

Prohibition of Performance Requirements

1. Neither Party shall, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non-Party in its territory, impose or enforce any requirement, or enforce any commitment or undertaking, to:

(...) (f) transfer a particular **technology**, a production process or other proprietary knowledge to a person in its territory; or”

8. Panama – Chinese Taipei RTA (in force since 01 Jan. 2004):

“CHAPTER 10 INVESTMENT

(...) Article 10.07 Performance Requirements

(...) 6. In the case where, in opinion of a Party, the imposition by the other Party of any of the following requirements shall adversely affect trade flows or constitutes a significant barrier to investment by an investor of a Party, the matter shall be considered by the Commission:

(...) (b) to transfer **technology**, production process or other proprietary knowledge to a person in its territory, except when the requirement is imposed by a court, administrative tribunal or competition authority to remedy an alleged violation of competition laws or to act in a manner not inconsistent with other provisions of this Agreement; or

(c) to act as the exclusive supplier of the goods it produces or services it provides to a specific region or world market.

7. A measure that requires an investment to use a **technology** to meet generally applicable health, safety or environmental requirements shall not be construed to be inconsistent with paragraph 6(b). For greater certainty, Articles 10.02 and 10.03 apply to the measure.”

9. United States – Singapore RTA (in force since 01 Jan. 2004):

“CHAPTER 15: INVESTMENT

ARTICLE 15.8: PERFORMANCE REQUIREMENTS

1. Neither Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non-Party in its territory:

(f) to transfer a particular **technology**, production process, or other proprietary knowledge to a person in its territory; or (...)”

10. United States – Chile RTA (in force since 01 Jan. 2004):

“Chapter Ten Investment

(...) Article 10.5: Performance Requirements

Mandatory Performance Requirements

1. Neither Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with the establishment, acquisition,

expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non-Party in its territory:
(...) (f) to transfer a particular **technology**, a production process, or other proprietary knowledge to a person in its territory; or (...)"

11. Korea – Chile RTA (in force since 01 Apr. 2004):

“CHAPTER 10 INVESTMENT

(...) Section B - Investment

(...) Article 10.7: Performance Requirements

1. Neither Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with the establishment, acquisition, expansion, management, conduct or operation of an investment of an investor of a Party or of a non-Party in its territory:

(...) (f) to transfer **technology**, a production process or other proprietary knowledge to a person in its territory, except when the requirement is imposed or the commitment or undertaking is enforced by a court, administrative tribunal or competition authority to remedy an alleged violation of competition law or to act in a manner not inconsistent with other provisions of this Agreement; or

(g) to act as the exclusive supplier of the goods it produces or services it provides to a specific region or world market.

2. A measure that requires an investment to use a **technology** to meet generally applicable health, safety or environmental requirements shall not be construed to be inconsistent with subparagraph 1(f). For greater certainty, Articles 10.3 and 10.4 apply to the measure.”

12. EU – Egypt RTA (in force since 01 Jun. 2004):

“Article 46

Investments and promotion of investments

Cooperation shall aim at increasing the flow of capital, expertise and **technology** to Egypt through, inter alia:

— appropriate means of identifying investment opportunities and information channels on investment regulations,

— providing information on European investment regimes (such as technical assistance, direct financial support, fiscal incentives and investment insurance) related to outward investments and enhancing the possibility for Egypt to benefit from them,

— a legal environment conducive to investment between the two Parties, where appropriate through the conclusion by the Member States and Egypt of investment protection agreements, and agreements to prevent double taxation,

— examining the creation of joint ventures, especially for SMEs and, when appropriate, the conclusion of agreements between the Member States and Egypt,

— establishing mechanisms for encouraging and promoting investments.

Cooperation may extend to the planning and implementation of projects demonstrating the effective acquisition and use of basic **technologies**, the use of standards, the development of human resources and the creation of jobs locally.”

13. United States - Australia RTA (in force since 01 Jan. 2005):

“CHAPTER ELEVEN INVESTMENT

(...) ARTICLE 11.9 : PERFORMANCE REQUIREMENTS

1. Neither Party may, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non-Party in its territory, impose or enforce any requirement, or enforce any commitment or undertaking, to:

(...) (f) transfer a particular **technology**, a production process, or other proprietary knowledge to a person in its territory; or (...)"

14. Japan – Mexico RTA (in force since 01 Apr. 2005):

“Chapter 7 - Investment
Article 65
Performance Requirements

1. Neither Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with the establishment, acquisition, expansion, management, conduct or operation of an investment of an investor of a Party or of a non-Party in its Area:

(...) (f) to transfer **technology**, a production process or other proprietary knowledge to a person in its Area, except when the requirement is imposed or the commitment or undertaking is enforced by a court, administrative tribunal or competition authority to remedy an alleged violation of competition laws or to act in a manner not inconsistent with multilateral agreements in respect of protection of intellectual property rights. A measure that requires an investment to use a **technology** to meet generally applicable health, safety or environmental requirements shall not be construed to be inconsistent with this paragraph. For greater certainty, Articles 58 and 59 shall apply to the measure; or”

15. EFTA – Tunisia RTA (in force since 01 Jun. 2005):

“ARTICLE 25
Investment Promotion

The Parties recognise the importance of promoting investment and **technology** flows between them as a means for achieving economic growth and development. Co-operation in this respect shall include:

- (a) appropriate means of identifying investment opportunities and information channels on investment regulations;
- (b) the provision of information on the Parties’ measures promoting investment abroad (technical assistance, financial support, investment insurance etc.);
- (c) the creation of a legal environment conducive to increased investment flows, including through the conclusion of international agreements; and
- (d) the planning and implementation of development projects, including for the participation of foreign investors.”

16. Türkiye - Tunisia RTA (in force since 01 Jul. 2005):

“Article 39
Investment Promotion

The Parties recognize the importance of promoting investment and **technology** flows between them as a means for achieving economic growth and development. Co-operation in this respect shall include:

- (a) appropriate means of identifying investment opportunities and information channels on investment regulations;
- (b) the provision of information on the Parties’ measures promoting investment abroad (technical assistance, financial support, investment insurance, etc.);
- (c) the planning and implementation of development projects, including for the participation of foreign investors.”

17. United States – Morocco RTA (in force since 01 Jan. 2006):

“CHAPTER TEN INVESTMENT

(...) ARTICLE 10.8: PERFORMANCE REQUIREMENTS

1. Neither Party may, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non-Party in its territory, impose or enforce any requirement or enforce any commitment or undertaking:

(...) (f) to transfer a particular **technology**, a production process, or other proprietary knowledge to a person in its territory; or”

18. Dominican Republic - Central America - United States Free Trade Agreement (CAFTA-DR) RTA (in force since 01 Mar. 2006):

“Chapter Ten Investment

Article 10.9: Performance Requirements

1. No Party may, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non-Party in its territory, impose or enforce any of the following requirements, or enforce any commitment or undertaking:

(...) (f) to transfer a particular **technology**, a production process, or other proprietary knowledge to a person in its territory; or (...)”

19. Korea - Singapore RTA (in force since 02 Mar. 2006):

“CHAPTER 10 INVESTMENT

(...) ARTICLE 10.7: PERFORMANCE REQUIREMENTS

1. Neither Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non-Party in its territory:

(...) (g) to transfer **technology**, a production process or other proprietary knowledge to a person in its territory, except when the requirement is imposed or the commitment or undertaking is enforced by a court, administrative tribunal or competition authority to remedy an alleged violation of competition law or to act in a manner not inconsistent with other provisions of this Agreement; or”

20. Guatemala – Chinese Taipei RTA (in force since 01 Jul. 2006):

“CHAPTER 10

INVESTMENT

(...) Article 10.07 Performance Requirements

(...) 6. In the case where, in the opinion of a Party, the imposition by the other Party of any of the following requirements shall adversely affect trade flows or constitutes a significant barrier to investment by an investor of a Party, the matter shall be considered by the Commission:

(...) b) to transfer **technology**, production process or other proprietary knowledge to a person in its territory, except when the requirement is imposed by a competent judicial court or administrative authority, to remedy an alleged violation of competition laws or to act in a manner not inconsistent with other provisions of this Agreement; or

c) to act as the exclusive supplier of the goods it produces or services it provides to a specific region or world market.

7. A measure that requires an investment to use a **technology** to meet generally applicable health, safety or environmental requirements shall not be construed to be inconsistent with paragraph 6(b). For greater certainty, Articles 10.03 and 10.04 apply to the measure.”

21. Panama – Singapore RTA (in force since 24 Jul. 2006):

“CHAPTER 9 INVESTMENT

Article 9.6: Performance Requirements

1. Neither Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non- Party in its territory to:

(...) (f) transfer a particular **technology**, production processor other proprietary knowledge to a person in its territory; (...)”

22. Egypt – Türkiye RTA (in force since 01 Mar. 2007):

“CHAPTER IV
STATE MONOPOLIES, COMPETITION RULES, PAYMENTS AND OTHER
ECONOMIC PROVISIONS

(...) ARTICLE 28

Investment Promotion

The Parties recognize the importance of promoting investment and **technology** flows between them as a means of achieving economic growth and development. Co-operation in this respect shall include:

- a) appropriate means of identifying investment opportunities and information channels on investment regulations;
- b) the provision of information on the Parties’ measures promoting investment abroad (technical assistance, financial support, investment insurance, etc.);
- c) the planning and implementation of development projects, including for the participation of foreign investors;
- d) encouraging the creation of joint ventures, especially for SMEs and, when appropriate, the conclusion of agreements between Turkey and Egypt.”

23. EFTA – Egypt RTA (in force since 01 Aug. 2007):

“CHAPTER IV INVESTMENT AND SERVICES

(...) ARTICLE 25

Investment promotion

1. The Parties recognize the importance of promoting cross-border investment and **technology** flows as a means for achieving economic growth and development. Co-operation in this respect may include:

- (a) appropriate means of identifying investment opportunities and information channels on investment regulations;
- (b) the provision of information on the Parties’ measures to promote investment abroad (technical assistance, financial support, investment insurance, etc.);
- (c) the furthering of a legal environment conducive to increased investment flows, including through the conclusion of bilateral agreements; and
- (d) the development of mechanisms for joint investments, in particular with small and medium enterprises.

2. The Parties recognize that it is inappropriate to encourage investment by relaxing health, safety or environmental standards.”

24. Chile – Japan RTA (in force since 03 Sept. 2007):

“Chapter 8

Investment

Article 77 – Performance Requirements

1. Neither Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with investment activities of an investor of a Party or of a non-Party in its Area:

- (f) to transfer **technology**, a production process or other proprietary knowledge to a person in its Area except when:
 - (i) the requirement is imposed or the commitment or undertaking is enforced by a court of justice, administrative tribunal or competition authority to remedy a practice determined after judicial or administrative process to be anti-competitive under its competition laws and regulations; or
 - (ii) the requirement concerns the transfer of intellectual property rights which is undertaken in a manner not inconsistent with the TRIPS Agreement; or”

25. EFTA – SACU RTA (in force since 01 May 2008):

“CHAPTER IV SERVICES, INVESTMENT, PUBLIC PROCUREMENT

ARTICLE 28

Investment

(...) 2. The Parties recognise the importance of promoting cross-border investment and **technology** flows as a means for achieving economic growth and development. Co-operation in this respect may include:

- (a) appropriate means of identifying investment opportunities and information channels on investment regulations;
- (b) the provision of information on the Parties' measures to promote investment abroad (technical assistance, financial support, investment insurance, etc.);
- (c) the furthering of a legal environment conducive to increased investment flows; and
- (d) the development of mechanisms for joint investments, in particular with small and medium enterprises."

26. Japan – Philippines RTA (in force since 11 Dec. 2008):

"Chapter 8 – Investment

Article 93 – Prohibition of Performance Requirements

1. Neither Party shall impose or enforce, as a condition for investment activities in its Area of an investor of the other Party, any of the following requirements:

(...) (e) natural persons of the other Party who engage in supplying services, which require **technology** or knowledge at an advanced level or which require specialized skills belonging to particular fields of industry, on the basis of a contract with public or private organizations in the former Party; and (...)"

27. Panama – Honduras (Panama – Central America) RTA (in force since 09 Jan. 2009):

"Capítulo X - Inversión

Artículo 10.07 Requisitos de desempeño

(...) 6. En caso de que, a juicio de una Parte, la imposición por la otra Parte de alguno de los requisitos señalados a continuación afecte negativamente el flujo comercial o constituya una barrera significativa a la inversión de un inversionista de la Parte, el asunto será considerado por la Comisión:

(...) b) transferir a una persona en su territorio, **tecnología**, proceso productivo u otro conocimiento reservado, salvo cuando el requisito se imponga por un tribunal judicial o administrativo o autoridad competente para reparar una supuesta violación a la legislación en materia de competencia o para actuar de una manera que no sea incompatible con otras disposiciones de este Tratado; o (...)

7. La medida que exija que una inversión emplee una **tecnología** para cumplir con requisitos de salud, seguridad o medio ambiente de aplicación general, no se considerará incompatible con el párrafo 6(b). Para brindar mayor certeza, los Artículos 10.02 y 10.03 se aplican a la citada medida."

28. United States – Oman RTA (in force since 01 Jan. 2009):

"CHAPTER TEN INVESTMENT

Section A: Investment

(...) ARTICLE 10.8: PERFORMANCE REQUIREMENTS

1. Neither Party may, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non-Party in its territory, impose or enforce any requirement or enforce any commitment or undertaking:

(...) (f) to transfer a particular **technology**, a production process, or other proprietary knowledge to a person in its territory; or"

29. United States – Peru RTA (in force since 01 Feb. 2009):

"Chapter 10: Investment

Article 10.9: Performance Requirements

1. No Party may, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non-Party in its territory, impose or enforce any requirement or enforce any commitment or undertaking:

(...) (f) to transfer a particular **technology**, a production process, or other proprietary knowledge to a person in its territory;⁷ or (...)"

30. Peru – Chile RTA (in force since 01 Mar. 2009):

“Capítulo 11 – Inversión

Artículo 11.6: Requisitos de Desempeño

(...(Requisitos de Desempeño Obligatorios

1. Ninguna Parte podrá imponer ni hacer cumplir cualquiera de los siguientes requisitos o hacer cumplir ninguna obligación o compromiso, en relación con el establecimiento, adquisición, expansión, administración, conducción, operación o venta o cualquier otra forma de disposición de una inversión en su territorio por parte de un inversionista de una Parte o de un país no Parte, para:

(...) (f) transferir a una persona en su territorio **tecnología**, un proceso productivo u otro conocimiento de su propiedad; o”

31. Chile – Australia RTA (in force since 09 Mar. 2009):

“Chapter 10 - Investment

(...) Article 10.7:

Performance Requirements

Mandatory Performance Requirements

1. Neither Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non-Party in its territory:

(...) (f) to transfer a particular **technology**, a production process, or other proprietary knowledge to a person in its territory; or (...)"

32. Chile – Colombia RTA (in force since 08 May 2009):

“Capítulo 9 Inversión Sección A – Inversión

(...) Artículo 9.6 Requisitos de Desempeño

Requisitos de Desempeño Obligatorios

(...) 1. Ninguna Parte podrá imponer ni hacer cumplir cualquiera de los siguientes requisitos, obligaciones o compromisos en relación con el establecimiento, adquisición, expansión, administración, conducción, operación o venta o cualquier otra forma de disposición de una inversión de un inversionista de una Parte o de un país no Parte en su territorio para⁵ :

(...) (f) transferir a una persona en su territorio **tecnología** particular, un proceso productivo u otro conocimiento de su propiedad; o”

33. Canada – Peru RTA (in force since 01 Aug. 2009):

“Chapter Eight - Investment

(...) Article 807: Performance Requirements

Neither Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with the establishment, acquisition, expansion, management, conduct or operation of an investment of an investor of a Party or of a non-Party in its territory:

(...) f) to transfer **technology**, a production process or other proprietary knowledge to a person in its territory, except when the requirement is imposed or the commitment or undertaking is enforced by a court, administrative tribunal or competition authority, to remedy an alleged violation of competition laws or to act in a manner not inconsistent with other provisions of this Agreement; or (...)

A measure that requires an investment to use a **technology** to meet generally applicable health, safety or environmental requirements shall not be construed to be inconsistent with subparagraph l(f). For greater certainty, Articles 803 and 804 apply to the measure.”

34. Peru – Singapore RTA (in force since 01 Aug. 2009):

“CHAPTER 10: INVESTMENT

(...) ARTICLE 10.7: PERFORMANCE REQUIREMENTS

1. Neither Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non-Party in its territory:

(...) (f) to transfer a particular **technology**, production process or other proprietary knowledge to a person in its territory¹⁰⁻⁷; or (...)”

35. Panama – Nicaragua RTA (in force since 21 Nov. 2009):

“CAPÍTULO 9

Capítulo X - Inversión

Artículo 10.07 Requisitos de desempeño

(...) 6. En caso de que, a juicio de una Parte, la imposición por la otra Parte de alguno de los requisitos señalados a continuación afecte negativamente el flujo comercial o constituya una barrera significativa a la inversión de un inversionista de la Parte, el asunto será considerado por la Comisión:

(...) b) transferir a una persona en su territorio, **tecnología**, proceso productivo u otro conocimiento reservado, salvo cuando el requisito se imponga por un tribunal judicial o administrativo o autoridad competente para reparar una supuesta violación a la legislación en materia de competencia o para actuar de una manera que no sea incompatible con otras disposiciones de este Tratado; o

7. La medida que exija que una inversión emplee una **tecnología** para cumplir con requisitos de salud, seguridad o medio ambiente de aplicación general, no se considerará incompatible con el párrafo 6(b). Para brindar mayor certeza, los Artículos 10.02 y 10.03 se aplican a la citada medida.”

36. EFTA²⁷⁶ – Serbia RTA (in force since 01 Oct. 2010):

“CHAPTER 4 INVESTMENT, SERVICES AND GOVERNMENT PROCUREMENT

ARTICLE 25 – Investment

(...) 3. The Parties recognise the importance of promoting investment and **technology** flows as a means for achieving economic growth and development. Co-operation in this respect may include:

(a) appropriate means of identifying investment opportunities and information channels on investment regulations;

(b) exchange of information on measures to promote investment abroad; and

(c) the furthering of a legal environment conducive to increased investment flows.”

37. EFTA – Albania RTA (in force since 01 Nov. 2010):

“CHAPTER 4 INVESTMENT, SERVICES AND GOVERNMENT PROCUREMENT

ARTICLE 24 – Investment

(...) 3. The Parties recognise the importance of promoting investment and **technology** flows as a means for achieving economic growth and development. Co-operation in this respect may include:

²⁷⁶ According to the WTO RTAs Database, EFTA is comprised of: Iceland; Liechtenstein; Norway; Switzerland.

- (a) appropriate means of identifying investment opportunities and information channels on investment regulations;
- (b) exchange of information on measures to promote investment abroad; and
- (c) the furthering of a legal environment conducive to increased investment flows.”

38. Canada – Colombia RTA (in force since 15 Aug. 2011):

“Chapter Eight - Investment

(...) Article 807: Performance Requirements

1. Neither Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with the establishment, acquisition, expansion, management, conduct or operation of an investment of an investor of the other Party or of a non-Party in its territory to:

(...) (f) transfer **technology**, a production process or other proprietary knowledge to a person in its territory; (...)

2. A measure that requires an investment to use a **technology** to meet generally applicable health, safety or environmental requirements shall not be construed to be inconsistent with subparagraph 1(f). For greater certainty, Articles 803 and 804 apply to the measure.”

39. Korea – United States RTA (in force since 15 Mar. 2012):

“CHAPTER ELEVEN INVESTMENT

(...) ARTICLE 11.8: PERFORMANCE REQUIREMENTS

1. Neither Party may, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment in its territory of an investor of a Party or of a non-Party, impose or enforce any requirement or enforce any commitment or undertaking:

(...) (f) to transfer a particular **technology**, a production process, or other proprietary knowledge to a person in its territory; or (...)”

40. Peru – Panama RTA (in force since 01 May 2012):

“Capítulo 12 Inversión

(...) Artículo 12.6: Requisitos de Desempeño

1. Ninguna Parte podrá, en relación con el establecimiento, adquisición, expansión, administración, conducción, operación, venta u otra disposición de una inversión de un inversionista de una Parte o de un país que no sea Parte en su territorio, imponer ni hacer cumplir cualquier requisito o hacer cumplir cualquier obligación o compromiso de:

(...) (f) transferir una **tecnología** particular, un proceso productivo u otro conocimiento de su propiedad a una persona en su territorio, salvo cuando el requisito se imponga o la obligación o el compromiso se hagan cumplir por un tribunal judicial o administrativo o una autoridad de competencia, para remediar una práctica que ha sido determinada después de un procedimiento judicial o administrativo como anticompetitiva conforme a las leyes de competencia de la Parte; o (...)

2. Una medida que requiera que una inversión utilice una **tecnología** para cumplir con regulaciones generales aplicables a la salud, seguridad o medio ambiente, no se considerará incompatible con el subpárrafo 1 (f).”

41. United States – Colombia RTA (in force since 15 May 2012):

“Chapter 10: Investment

Article 10.9: Performance Requirements

1. No Party may, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non-Party in its territory, impose or enforce any requirement or enforce any commitment or undertaking:

(...) (f) to transfer a particular **technology**, a production process, or other proprietary knowledge to a person in its territory; or (...)"

42. EFTA – Montenegro RTA (in force since 01 Sept. 2012):

“CHAPTER 4

INVESTMENT, SERVICES AND GOVERNMENT PROCUREMENT

ARTICLE 24

Investment

(...) 3. The Parties recognise the importance of promoting investment and **technology** flows as a means for achieving economic growth and development. Cooperation in this respect may include:

- (a) appropriate means of identifying investment opportunities and information channels on investment regulations;
- (b) exchange of information on measures to promote investment abroad; and
- (c) the furthering of a legal environment conducive to increased investment flows.

ARTICLE 37

Promotion of Trade and Investment Favouring Sustainable Development

1. The Parties shall strive to facilitate and promote foreign investment, trade in and dissemination of goods and services beneficial to the environment, including environmental **technologies**, sustainable renewable energy, energy-efficient and eco-labelled goods and services, including through addressing related non-tariff barriers.

(...) 4. The Parties shall encourage cooperation between enterprises in relation to goods, services and **technologies** that contribute to sustainable development and are beneficial to the environment.”

43. Mexico – Central America RTA (in force since 01 Sep. 2012):

“CAPÍTULO XI - INVERSIÓN

Artículo 11.7: Requisitos de Desempeño

1. Ninguna Parte podrá imponer u obligar al cumplimiento de los siguientes requisitos o compromisos, en relación con el establecimiento, adquisición, expansión, administración, conducción, operación, venta o cualquier otra forma de disposición de una inversión de un inversionista de la otra Parte o de un Estado no Parte en su territorio para:

(...) (f) transferir a una persona en su territorio, **tecnología**, proceso productivo u otro conocimiento reservado, salvo:

(i) cuando el requisito se imponga por un tribunal judicial o administrativo o autoridad competente, para reparar una supuesta violación a la legislación nacional en materia de competencia o para actuar de una manera que no sea incompatible con otras disposiciones de este Tratado4; o

(ii) cuando una Parte autoriza el uso de un derecho de propiedad intelectual de conformidad con el Artículo 31 del Acuerdo sobre los ADPIC o a las medidas que exijan la divulgación de información de dominio privado que se encuentre dentro del ámbito de aplicación, y sean compatibles con el Artículo 39 del Acuerdo sobre los ADPIC5; (...)

2. La medida que exija que una inversión emplee una **tecnología** para cumplir con requisitos de salud, medio ambiente o seguridad de aplicación general, no se considerará incompatible con el párrafo 1(f). Para brindar mayor certeza, los artículos 11.4 y 11.5 se aplican a la citada medida.”

44. Canada – Panama RTA (in force since 01 Apr. 2013):

“Chapter nine: Investment

Section B – Investment

Article 9.07: Performance requirements

A Party may not impose or enforce the following requirements, or enforce a commitment or undertaking, in connection with the establishment, acquisition,

expansion, management, conduct or operation of an investment of an investor of a Party or a non-Party in its territory:

(...) to transfer **technology**, a production process or other proprietary knowledge to a person in its territory; or

to supply exclusively from the territory of the Party a good that such investment produces or a service it provides to a specific regional market or to the world market. A measure that requires an investment to use a **technology** to meet generally applicable health, safety or environmental requirements is not inconsistent with paragraph 1(f). For greater certainty, Articles 9.04 and 9.05 apply to that measure.”

45. Costa Rica – Peru RTA (in force since 01 Jun. 2013):

“Capítulo 12 Inversión

(...) Artículo 12.6: Requisitos de Desempeño

1. Ninguna Parte podrá, en relación con el establecimiento, adquisición, expansión, administración, conducción, operación, venta u otra disposición de una inversión de un inversionista de una Parte o de un país que no sea Parte en su territorio, imponer ni hacer cumplir cualquier requisito o hacer cumplir cualquier obligación o compromiso de:

(...) (f) transferir una **tecnología** particular, un proceso productivo u otro conocimiento de su propiedad a una persona en su territorio, salvo cuando el requisito se imponga o la obligación o el compromiso se hagan cumplir por un tribunal judicial o administrativo o una autoridad de competencia, para remediar una práctica que ha sido determinada después de un procedimiento judicial o administrativo como anticompetitiva conforme a las leyes de competencia de la Parte4; o (...)

2. Una medida que requiera que una inversión utilice una **tecnología** para cumplir con regulaciones generales aplicables a la salud, seguridad o medio ambiente, no se considerará incompatible con el subpárrafo 1 (f).”

46. Costa Rica – Singapore RTA (01 Jul. 2013):

“Chapter 11 - Investment

Article 11.8: Performance Requirements

1. Neither Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non- Party in its territory:

(...) (f) to transfer a particular **technology**, production process or other proprietary knowledge to a person in its territory; or”

47. New Zealand – Chinese Taipei RTA (in force since 01 Dec. 2013):

“CHAPTER 12 – INVESTMENT

Article 7 Performance Requirements

1. Neither Party may, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non-Party, impose or enforce any requirement, or enforce any commitment or undertaking:

(...) (f) to transfer a particular **technology**, a production process, or other proprietary knowledge to a person in its jurisdiction; or”

48. Singapore – Chinese Taipei RTA (in force since 19 Apr. 2014):

“CHAPTER 9 INVESTMENT

(...) ARTICLE 9.9 PERFORMANCE REQUIREMENTS

1. Neither Party may, in connection with the establishment, acquisition, expansion, management, conduct, operation, or sale or other disposition of an investment of an investor of a Party or of a non-Party in its territory, impose or enforce any requirement or enforce any commitment or undertaking:

(...) (f) to transfer a particular **technology**, a production process, or other proprietary knowledge to a person in its territory; or (...)"

49. Switzerland – China RTA (in force since 01 Jul. 2014):

“CHAPTER 9

INVESTMENT PROMOTION

ARTICLE 9.1

Investment Promotion

The Parties recognise the importance of promoting cross-border investment and **technology** flows as a means for achieving economic growth and development.

Cooperation in this respect may include:

- (a) identifying investment opportunities;
- (b) exchange of information on measures to promote investment abroad;
- (c) exchange of information on investment regulations;
- (d) assistance of investors to understand the investment regulations and the investment environment in both Parties; and
- (e) the furthering of a legal environment conducive to increased investment flows.”

50. Canada – Honduras RTA (in force since 01 Oct. 2014):

“Chapter Ten: Investment

Article 10.7: Performance Requirements

1. A Party may not impose or enforce the following requirements, or enforce a commitment or undertaking, in connection with the establishment, acquisition, expansion, management, conduct or operation of an investment of an investor of a Party or of a non-Party in its territory:

- (a) to export a given level or percentage of a good or service;
- (b) to achieve a given level or percentage of domestic content;
- (c) to purchase, use, or accord a preference to a good produced or service provided in its territory, or to purchase a good or service from a person in its territory;
- (d) to relate the volume or value of imports to the volume or value of exports or to the amount of foreign exchange inflows associated with that investment;
- (e) to restrict sales of a good or service in its territory that the investment produces or provides by relating those sales to the volume or value of its exports or foreign exchange earnings;
- (f) to transfer **technology**, a production process, or other proprietary knowledge to a person in its territory; or
- (g) to supply exclusively from the territory of the Party a good that the investment produces or a service that the investment provides to a specific regional market or to the world market.

2. A measure that requires an investment to use a **technology** to meet generally applicable health, safety, or environmental requirements is not inconsistent with paragraph 1(f). For greater certainty, Articles 10.4 and 10.5 apply to the measure.”

51. Korea – Australia RTA (in force since 12 Dec. 2014):

“Chapter 11 - Investment

ARTICLE 11.9: PERFORMANCE REQUIREMENTS

1. Neither Party shall, in connection with the establishment, acquisition, expansion, management, conduct, operation or sale or other disposition of an investment in its territory of an investor of a Party or of a non-Party, impose or enforce any requirement or enforce any commitment or undertaking:

(...) (f) to transfer a particular **technology**, a production process, or other proprietary knowledge to a person in its territory; or (...)"

52. Canada – Korea RTA (in force since 01 Jan. 2015):

“Chapter Eight: Investment

Section A – Investment

(...) Article 8.8: Performance Requirements

1. A Party shall not, in connection with the establishment, acquisition, expansion, management, conduct, or operation of an investment in its territory of an investor of a Party or of a non-party, impose or enforce a requirement or enforce a commitment or undertaking:

(...) (f) to transfer **technology**, a production process, or other proprietary knowledge to a person in its territory; or

(g) to supply exclusively from the territory of the Party the goods that the investment produces or the services that it supplies to a specific regional market or to the world market.

2. A measure that requires an investment to use a **technology** to meet generally applicable health, safety, or environmental requirements is not to be construed to be inconsistent with paragraph 1(f). For greater certainty, Articles 8.3 and 8.4 apply to the measure.”

53. EFTA – Bosnia and Herzegovina RTA (in force since 01 Jan. 2015):

“CHAPTER 4

INVESTMENT, SERVICES AND GOVERNMENT PROCUREMENT

ARTICLE 26

Investment

(...) 3. The Parties recognise the importance of promoting investment and **technology** flows as a means for achieving economic growth and development. Cooperation in this respect may include:

(a) appropriate means of identifying investment opportunities and information channels on investment regulations;

(b) exchange of information on measures to promote investment abroad; and

(c) the furthering of a legal environment conducive to increased investment flows.”

54. Australia – Japan RTA (in force since 15 Jan. 2015):

“Chapter 14 - Investment

Article 14.9

Prohibition of Performance Requirements

(...) 2. Without prejudice to paragraph 1, neither Party shall impose or enforce any of the following requirements, in connection with investment activities of an investor of a Party or of a non-Party in its Area:

(...) (f) to transfer **technology**, a production process or other proprietary knowledge to a person in its Area, except when the requirement:

(i) is imposed or enforced by a court of justice, administrative tribunal or competition authority to remedy a practice determined after judicial or administrative process to be anticompetitive under its competition laws and regulations; or

(ii) concerns the disclosure of proprietary information or the use of intellectual property rights which is undertaken in a manner not inconsistent with the TRIPS Agreement; or (...)”

55. Mexico – Panama RTA (in force since 01 Jul. 2015):

“CAPÍTULO 10

INVERSIÓN

Sección A: Disposiciones Generales

(...) Artículo 10.7: Requisitos de Desempeño

1. Ninguna Parte podrá, imponer ni hacer cumplir cualquier requisito o hacer cumplir cualquier obligación o compromiso, en relación con el establecimiento, adquisición, expansión, administración, conducción, operación, venta u otra disposición de una inversión de un inversionista de la otra Parte o de un país no Parte en su territorio para:

(...) (f) transferir una **tecnología** particular, un proceso productivo u otro conocimiento de su propiedad a una persona en su territorio, salvo que:”

56. Colombia – Costa Rica RTA (in force since 01 Aug. 2016):

“CAPÍTULO 12 – INVERSIÓN

SECCIÓN A: OBLIGACIONES SUSTANTIVAS

(...) ARTÍCULO 12.6: REQUISITOS DE DESEMPEÑO

1. Ninguna Parte podrá, en relación con el establecimiento, adquisición, expansión, administración, conducción, operación, venta u otra disposición de una inversión de un inversionista de una Parte o de un país que no sea Parte en su territorio, imponer ni hacer cumplir cualquier requisito o hacer cumplir cualquier obligación o compromiso de:

(...) (f) transferir una **tecnología** particular, un proceso productivo u otro conocimiento de su propiedad a persona en su territorio, salvo cuando el requisito se imponga o la obligación o el compromiso se hagan cumplir por un tribunal judicial o administrativo o una autoridad de competencia, para remediar una práctica que ha sido determinada después de un procedimiento judicial o administrativo como anticompetitiva conforme a las leyes de competencia de la Parte4; o

(g) proveer exclusivamente del territorio de una Parte las mercancías que produce la inversión o los servicios que presta para un mercado específico regional o al mercado mundial.

2. Una medida que requiera que una inversión utilice una **tecnología** para cumplir con regulaciones generales aplicables a la salud, seguridad o medio ambiente, no se considerará incompatible con el párrafo 1(f).”

57. Eurasian Economic Union (EAEU) - Viet Nam RTA (in force since 05 Oct. 2016):

“ TRADE IN SERVICES, INVESTMENT

ARTICLE 8.24

Performance Requirements

1. Subject to the reservations set out in its individual national List provided for in Annex 3 to Protocol No. 1 neither Party to this Chapter shall in connection with establishment and/or activities impose or enforce in respect of commercial presences of persons of the other Party to this Chapter set up within the territory of the former Party, respectively, any requirement:

(...) e) to transfer a particular **technology**, a production process, or other proprietary information to persons in the territory of the former Party; or »

58. EU – Canada RTA (in force since 21 Sep. 2017):

“CHAPTER EIGHT

Investment

(...) Article 8.5

Performance requirements

1. A Party shall not impose, or enforce the following requirements, or enforce a commitment or undertaking, in connection with the establishment, acquisition, expansion, conduct, operation, and management of any investments in its territory to:

(...) (f) transfer **technology**, a production process or other proprietary knowledge to a natural person or enterprise in its territory; or (...)”

5.2.2.16 *In provisions on measures on standards, metrology and authorization procedures*

The selected excerpts of the 14 RTAs that mention “technology” or its variations in provisions on measures on standards, metrology and authorization procedures are transcribed below for ease of reference:

1. New Zealand – Singapore RTA (in force since 01 Jan. 2001):

“ANNEX 4
TECHNICAL, SANITARY AND PHYTOSANITARY REGULATIONS AND
STANDARDS
ANNEX 4.1
Product Chapter on Electrical and Electronic Equipment
Section 6
Designation Procedures and Stipulated Requirements
(...) 6.6 Demonstration of technical competence shall be based on:
a) **technological** knowledge of the relevant products, processes or services;
b) understanding of the technical standards and the general risk protection
requirements for which designation is sought;
c) the experience relevant to the applicable mandatory requirements;
d) the physical capability to perform the relevant conformity assessment activities;
e) an adequate management of the conformity assessment activities concerned; and
f) any other circumstance necessary to give assurance that the conformity assessment
activities shall be adequately performed on a consistent basis.”

2. Chile – Costa Rica (Chile - Central America) RTA (in force since 01 Feb. 2002):

“CAPÍTULO 9
MEDIDAS DE NORMALIZACIÓN, METROLOGÍA Y PROCEDIMIENTOS DE
AUTORIZACIÓN
(...) Artículo 9.04 Obligaciones y derechos básicos
(...) Uso de normas internacionales
4. Para la elaboración o aplicación de sus medidas de normalización, procedimientos
de autorización o metrología, cada Parte utilizará las normas internacionales vigentes
o de adopción inminente, o sus elementos pertinentes, excepto cuando esas normas
internacionales no constituyan un medio efectivo o adecuado para lograr sus objetivos
legítimos, debido a factores fundamentales de naturaleza climática, geográfica,
tecnológica, de infraestructura, o bien por razones científicamente comprobadas.
Artículo 9.05 Evaluación del riesgo
1. En la búsqueda de sus objetivos legítimos, cada Parte llevará a cabo evaluaciones
del riesgo, y al hacerlo, tomará en consideración:
a) las evaluaciones del riesgo efectuadas por organismos internacionales de
normalización;
b) la evidencia científica o la información técnica disponibles;
c) la **tecnología** de elaboración conexas; o
d) usos finales a los que se destinen las mercancías o servicios.”

3. Chile - El Salvador (Chile - Central America) RTA (in force since 01 Jun. 2002):

“CAPÍTULO 9
MEDIDAS DE NORMALIZACIÓN, METROLOGÍA Y PROCEDIMIENTOS DE
AUTORIZACIÓN
(...) Artículo 9.05 Evaluación del riesgo
1. En la búsqueda de sus objetivos legítimos, cada Parte llevará a cabo evaluaciones
del riesgo, y al hacerlo, tomará en consideración:
a) las evaluaciones del riesgo efectuadas por organismos internacionales de
normalización;
b) la evidencia científica o la información técnica disponibles;
c) la **tecnología** de elaboración conexas; o
d) usos finales a los que se destinen las mercancías o servicios.”

4. Panama - El Salvador (Panama - Central America) RTA (in force since 11 Apr. 2003):

“CAPÍTULO 9
MEDIDAS DE NORMALIZACIÓN, METROLOGÍA Y PROCEDIMIENTOS DE
AUTORIZACIÓN

(...) Artículo 9.04 Derechos y obligaciones básicos

Uso de normas internacionales

4. Para la elaboración o aplicación de sus medidas de normalización, procedimientos de autorización o metrología, cada Parte utilizará las normas internacionales vigentes o de adopción inminente, o sus elementos pertinentes, excepto cuando esas normas internacionales no constituyan un medio efectivo o adecuado para lograr sus objetivos legítimos, debido a factores fundamentales de naturaleza climática, geográfica, **tecnológica**, de infraestructura, o bien por razones científicamente comprobadas.

Artículo 9.05 Evaluación del riesgo

1. En la búsqueda de sus objetivos legítimos, cada Parte llevará a cabo evaluaciones del riesgo, y al hacerlo, tomará en consideración:

(...) b) la evidencia científica o la información técnica disponible;

c) la **tecnología** de elaboración conexas; o”

5. Panama – Chinese Taipei RTA (in force since 01 Jan. 2004):

“CHAPTER 9
MEASURES ON STANDARDS, METROLOGY AND AUTHORIZATION
PROCEDURES

(...) Article 9.04 Basic Rights and Obligations

(...) Use of International Standards

4. In the development or implementation of its measures on standardization, authorization procedures or metrology, each Party shall use international standards where they exist or their completion is imminent, or use the relevant parts of them, except where such international standards would not be an effective or appropriate means for fulfilling the legitimate objectives because of fundamental climatic, geographical, **technological** or infrastructural factors, or scientifically verified reasons.

Article 9 .05 Assessment of Risk

1. In pursuing its legitimate objectives, each Party conducting risk assessments shall take into account:

(a) risk assessments carried out by international standardizing or metrological bodies;

(b) available scientific evidence or technical information;

(c) related processing **technology**; or

(d) intended end uses of goods.”

6. India – Singapore RTA (in force since 01 Aug. 2005):

“CHAPTER 5
STANDARDS AND TECHNICAL REGULATIONS, SANITARY AND
PHYTOSANITARY MEASURES

(...) ARTICLE 5.5: MUTUAL RECOGNITION OF CONFORMITY ASSESSMENT
Scope

1. This Article shall apply to the conformity assessment bodies and conformity assessment activities for products as may be specified in the Sectoral Annexes.

Obligations

2. In accordance with Article 2.4 of the WTO Agreement on Technical Barriers to Trade, where technical regulations are required and relevant international standards exist or their completion is imminent, Parties shall use them, or the relevant parts of them, as a basis for their mandatory requirements except when such international standards or relevant parts of them would be an ineffective or inappropriate means for the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental **technological** problems.

ARTICLE 5.6: GOOD MANUFACTURING PRACTICES (GMP)

1. The provisions of this Article apply to assessments of manufacturers or manufacturing processes of products, and their mandatory requirements as may be specified in the relevant Sectoral Annexes.

Obligations

2. In accordance with Article 2.4 of the WTO Agreement on Technical Barriers to Trade, where technical regulations are required and relevant international standards exist or their completion is imminent, the Parties shall use them, or the relevant parts of them, as a basis for their mandatory requirements except when such international standards or relevant parts of them would be an ineffective or inappropriate means for the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental **technological** problems.”

7. Guatemala – Chinese Taipei RTA (in force since 01 Jul. 2006):

“CHAPTER 9

MEASURES ON STANDARDS, METROLOGY AND AUTHORIZATION PROCEDURES

(...)

Article 9.04 Basic Rights and Obligations

(...) Use of International Standards

4. In the development or implementation of its measures on standardization, authorization procedures or metrology, each Party shall use international standards where they exist or their completion is imminent, or use the relevant parts of them, except where such international standards would not be an effective or appropriate means for fulfilling the legitimate objectives because of fundamental climatic, geographical, **technological** or infrastructural factors, or scientifically verified reasons.

Article 9 .05 Assessment of Risk

1. In pursuing its legitimate objectives, each Party conducting risk assessments shall take into account:

(...)

(C) related processing **technology**; or”

8. El Salvador - Honduras - Chinese Taipei RTA (in force since 01 mar. 2008):

“CHAPTER 9: MEASURES ON STANDARDS, METROLOGY, AND AUTHORIZATION PROCEDURES

(...) Article 9.04 Basic Rights and Obligations

(...) Use of International Standards

4. In the development or implementation of its measures on standardization, authorization procedures or metrology, each Party shall use international standards where they exist or their completion is imminent, or use the relevant parts of them, except where such international standards would not be an effective or appropriate means for fulfilling the legitimate objectives because of fundamental climatic, geographical, **technological** or infrastructural factors, or scientifically verified reasons.”

9. Panama – Costa Rica (Panama – Central America) RTA (in force since 23 Nov. 2008):

“CAPÍTULO 9

MEDIDAS DE NORMALIZACIÓN, METROLOGÍA Y PROCEDIMIENTOS DE AUTORIZACIÓN

(...) Artículo 9.04 Derechos y obligaciones básicos

(...) Uso de normas internacionales

4. Para la elaboración o aplicación de sus medidas de normalización, procedimientos de autorización o metrología, cada Parte utilizará las normas internacionales vigentes o de adopción inminente, o sus elementos pertinentes, excepto cuando esas normas internacionales no constituyan un medio efectivo o adecuado para lograr sus objetivos

legítimos, debido a factores fundamentales de naturaleza climática, geográfica, **tecnológica**, de infraestructura, o bien por razones científicamente comprobadas.

Artículo 9.05 Evaluación del riesgo

1. En la búsqueda de sus objetivos legítimos, cada Parte llevará a cabo evaluaciones del riesgo, y al hacerlo, tomará en consideración:

(...) c) la **tecnología** de elaboración conexas; o (...)"

10. Panama – Honduras (Panama – Central America) RTA (in force since 09 Jan. 2009):

“Capítulo 09 - Medidas de normalización, metrología y procedimientos de autorización

Artículo 9.04 Derechos y obligaciones básicos

(...) Uso de normas internacionales

4. Para la elaboración o aplicación de sus medidas de normalización, procedimientos de autorización o metrología, cada Parte utilizará las normas internacionales vigentes o de adopción inminente, o sus elementos pertinentes, excepto cuando esas normas internacionales no constituyan un medio efectivo o adecuado para lograr sus objetivos legítimos, debido a factores fundamentales de naturaleza climática, geográfica, **tecnológica**, de infraestructura, o bien por razones científicamente comprobadas.

Artículo 9.05 Evaluación del riesgo

1. En la búsqueda de sus objetivos legítimos, cada Parte llevará a cabo evaluaciones del riesgo, y al hacerlo, tomará en consideración:

(...) c) la **tecnología** de elaboración conexas; o"

11. Panama – Nicaragua RTA (in force since 21 Nov. 2009):

“CAPÍTULO 9

MEDIDAS DE NORMALIZACIÓN, METROLOGÍA Y PROCEDIMIENTOS DE AUTORIZACIÓN

Artículo 9.04 Derechos y obligaciones básicos

(...) Uso de normas internacionales

4. Para la elaboración o aplicación de sus medidas de normalización, procedimientos de autorización o metrología, cada Parte utilizará las normas internacionales vigentes o de adopción inminente, o sus elementos pertinentes, excepto cuando esas normas internacionales no constituyan un medio efectivo o adecuado para lograr sus objetivos legítimos, debido a factores fundamentales de naturaleza climática, geográfica, **tecnológica**, de infraestructura, o bien por razones científicamente comprobadas.

Artículo 9.05 Evaluación del riesgo

(...) 1. En la búsqueda de sus objetivos legítimos, cada Parte llevará a cabo evaluaciones del riesgo, y al hacerlo, tomará en consideración:

(...) c) la **tecnología** de elaboración conexas; o (...)"

12. Chile – Guatemala (Chile – Central America) RTA (in force since 23 Mar. 2010):

“CAPÍTULO 9

MEDIDAS DE NORMALIZACIÓN, METROLOGÍA Y PROCEDIMIENTOS DE AUTORIZACIÓN

Artículo 9.04 Obligaciones y derechos básicos

(...) Uso de normas internacionales

4. Para la elaboración o aplicación de sus medidas de normalización, procedimientos de autorización o metrología, cada Parte utilizará las normas internacionales vigentes o de adopción inminente, o sus elementos pertinentes, excepto cuando esas normas internacionales no constituyan un medio efectivo o adecuado para lograr sus objetivos

legítimos, debido a factores fundamentales de naturaleza climática, geográfica, **tecnológica**, de infraestructura, o bien por razones científicamente comprobadas.

Artículo 9.05 Evaluación del riesgo

1. En la búsqueda de sus objetivos legítimos, cada Parte llevará a cabo evaluaciones del riesgo, y al hacerlo, tomará en consideración:

- a) las evaluaciones del riesgo efectuadas por organismos internacionales de normalización;
- b) la evidencia científica o la información técnica disponibles;
- c) la **tecnología** de elaboración conexas; o
- d) usos finales a los que se destinen las mercancías o servicios.”

13. Chile – Nicaragua (Chile – Central America) RTA (in force since 19 Oct. 2012):

“CAPÍTULO 9

MEDIDAS DE NORMALIZACIÓN, METROLOGÍA Y PROCEDIMIENTOS DE AUTORIZACIÓN

(...) Artículo 9.04 Obligaciones y derechos básicos

(...) Uso de normas internacionales

4. Para la elaboración o aplicación de sus medidas de normalización, procedimientos de autorización o metrología, cada Parte utilizará las normas internacionales vigentes o de adopción inminente, o sus elementos pertinentes, excepto cuando esas normas internacionales no constituyan un medio efectivo o adecuado para lograr sus objetivos legítimos, debido a factores fundamentales de naturaleza climática, geográfica, **tecnológica**, de infraestructura, o bien por razones científicamente comprobadas.

Artículo 9.05 Evaluación del riesgo

1. En la búsqueda de sus objetivos legítimos, cada Parte llevará a cabo evaluaciones del riesgo, y al hacerlo, tomará en consideración:

- a) las evaluaciones del riesgo efectuadas por organismos internacionales de normalización;
- b) la evidencia científica o la información técnica disponibles;
- c) la **tecnología** de elaboración conexas; o
- d) usos finales a los que se destinen las mercancías o servicios.”

14. Eurasian Economic Union (EAEU)²⁷⁷ (in force since 01 Jan. 2015):

“Section X

TECHNICAL REGULATION

Article 51

General Principles of Technical Regulation

1. Technical regulation within the EAEU shall be implemented in accordance with the following principles:

- 1) establishment of mandatory requirements to products and product related requirements to design processes (including research), manufacturing, construction, installation, adjustment, operation, storage, transportation, marketing and utilization;
- 2) establishment of common mandatory requirements in technical regulations of the EAEU or national mandatory requirements in the legislation of the member-states in respect to the products included in the Common List of products for which established mandatory requirements within the EAEU are established (hereinafter - the Common List);
- 3) application and enforcement of technical regulations of the EAEU at the territories of the member-states without exceptions;
- 4) compliance of technical regulations within the EAEU to the level of economic development of member-states and the level of scientific and **technological** development; (...)”

²⁷⁷ According to the WTO RTA Database, the EAEU is comprised of: Armenia; Belarus; Kazakhstan; Kyrgyz Republic; Russian Federation.

5.2.2.17 In Security provisions

The selected excerpts of the 25 RTAs that mention “technology” or its variations in provisions on security issues are transcribed below for ease of reference:

1. EU Treaty (in force since 01 Jan. 1958):

“Consolidated version of the Treaty

SECTION 2

PROVISIONS ON THE COMMON SECURITY AND DEFENCE POLICY

Article 42

(ex Article 17 TEU)

(...) 3. Member States shall make civilian and military capabilities available to the Union for the implementation of the common security and defence policy, to contribute to the objectives defined by the Council. Those Member States which together establish multinational forces may also make them available to the common security and defence policy.

Member States shall undertake progressively to improve their military capabilities. The Agency in the field of defence capabilities development, research, acquisition and armaments (hereinafter referred to as ‘the European Defence Agency’) shall identify operational requirements, shall promote measures to satisfy those requirements, shall contribute to identifying and, where appropriate, implementing any measure needed to strengthen the industrial and **technological** base of the defence sector, shall participate in defining a European capabilities and armaments policy, and shall assist the Council in evaluating the improvement of military capabilities.

TITLE XVII

INDUSTRY

Article 173

(ex Article 157 TEC)

1. The Union and the Member States shall ensure that the conditions necessary for the competitiveness of the Union's industry exist.

For that purpose, in accordance with a system of open and competitive markets, their action shall be aimed at:

- speeding up the adjustment of industry to structural changes,
- encouraging an environment favourable to initiative and to the development of undertakings throughout the Union, particularly small and medium-sized undertakings,
- encouraging an environment favourable to cooperation between undertakings,
- fostering better exploitation of the industrial potential of policies of **innovation**, research and **technological** development.

CONSOLIDATED VERSION OF THE TREATY ON THE FUNCTIONING OF THE EUROPEAN UNION

(...) Article 4

(...) 3. In the areas of research, **technological** development and space, the Union shall have competence to carry out activities, in particular to define and implement programmes; however, the exercise of that competence shall not result in Member States being prevented from exercising theirs.

Article 13

In formulating and implementing the Union's agriculture, fisheries, transport, internal market, research and **technological** development and space policies, the Union and the Member States shall, since animals are sentient beings, pay full regard to the welfare requirements of animals, while respecting the legislative or administrative provisions and customs of the Member States relating in particular to religious rites, cultural traditions and regional heritage.

TITLE XVII
INDUSTRY
Article 173
(ex Article 157 TEC)

(...) 1. The Union and the Member States shall ensure that the conditions necessary for the competitiveness of the Union's industry exist.

For that purpose, in accordance with a system of open and competitive markets, their action shall be aimed at:

(...) — fostering better exploitation of the industrial potential of policies of innovation, research and technological development. »

2. Georgia – Ukraine RTA (in force since 04 June 1996):

“Article 3

(...) 3. Nothing in the present agreement prevents the right of any Side to apply any measures of governmental regulation that are considered to be necessary, if such measures concern the following:

- maintenance of national security, including prevention of the leakage of confidential information related to the governmental secret;

(...) - trade in weapon, military equipment, ammunition, military services, transfer of technologies and services for the production of armament and military equipment;

(...)”

3. Canada – Israel RTA (in force since 01 Jan. 1997):

“CHAPTER TWENTY – EXCEPTIONS

(...) Article 20.2: National Security

This Agreement does not:

(...) (b) prevent a Party from taking any action that it considers necessary to protect its essential security interests:

(i) relating to the traffic in arms, ammunition and implements of war, and to traffic and transactions in other goods, materials, services, and technology undertaken directly or indirectly for the purposes of supplying a military or other security establishment;”

4. Canada – Chile RTA (in force since 05 Jul. 1997):

“Part Five: Other Provisions

Chapter O - Exceptions

(...) Article O-02: National Security

1. Nothing in this Agreement shall be construed:

(a) to require either Party to furnish or allow access to any information the disclosure of which it determines to be contrary to its essential security interests;

(b) to prevent either Party from taking any actions that it considers necessary for the protection of its essential security interests

(i) relating to the traffic in arms, ammunition and implements of war and to such traffic and transactions in other goods, materials, services and technology undertaken directly or indirectly for the purpose of supplying a military or other security establishment, (...)”

5. Chile – Mexico RTA (in force since 01 Aug. 1999):

“Artículo 19-03: Seguridad nacional

Ninguna disposición de este Tratado se interpretará en el sentido de:

(...) b) impedir a una Parte que adopte cualquier medida que considere necesaria para proteger sus intereses esenciales en materia de seguridad:

i) relativa al comercio de armamento, municiones y pertrechos de guerra y al comercio y las operaciones sobre bienes, materiales, servicios y tecnología que se lleven a cabo

con la finalidad directa o indirecta de proporcionar suministros a una institución militar o a otro establecimiento de defensa,
ii) adoptada en tiempo de guerra o de otras emergencias en las relaciones internacionales, o
iii) referente a la aplicación de políticas nacionales o de acuerdos internacionales en materia de no proliferación de armas nucleares o de otros dispositivos explosivos nucleares; ni”

6. Israel – Mexico RTA (in force since 01 Jul. 2000):

“Section 2 Permanent provisions
(...) 8. The national security exception provided for in Article 6-18 of this Chapter covers procurements made in support of safeguarding nuclear materials or **technology**.

Part B - General notes and derogations governing Israel’s offer set out in Annex I to V

(...) 4. Notwithstanding any other provision of this Chapter, Israel may operate provisions which require the limited incorporation of domestic content, offset procurement or transfer of **technology**, in the form of objective and clearly defined conditions for participation in procedures for the award of contracts. This shall be done under the following terms: (...)

Article 11-03: National Security

Nothing in this Agreement shall be construed:

(...) (b) to prevent any Party from taking any actions that it considers necessary for the protection of its essential security interests:

(i) relating to traffic in arms, ammunition and implements of war and to such traffic and transactions in other goods, materials, services and **technology** undertaken directly or indirectly for the purpose of supplying a military or other security establishment;”

7. Armenia - Kazakhstan RTA (in force since 25 Dec. 2001):

“Article 11

(...) 2. Nothing in this Agreement precludes the right of any of the Parties to use any means of state control deemed necessary by the Party, if these measures relate to:

- assuring national security, including the prevention of leaks in confidential information related to state secrets;
- trade in arms, military **technology**, munitions, offering military-type services, **technology** transfer, and providing services in the manufacture of armaments and military hardware, and for other purposes;
- supplying fissionable nuclear materials and sources of radioactive substances, processing of radioactive wastes;
- measures taken at time of war or during other extreme situations in the international relations;
- actions taken in compliance with the UN Charter for maintaining international peace and security.”

8. Chile – Costa Rica (Chile - Central America) RTA (in force since 01 Feb. 2002):

“Artículo 20.03 - Seguridad nacional

(...) Ninguna disposición de este Tratado se interpretará en el sentido de:

(...) b) impedir a una Parte que adopte cualquier medida que considere necesaria para proteger los intereses esenciales de su seguridad:

i) relativa al comercio de armamento, municiones y pertrechos de guerra y al comercio y las operaciones sobre mercancías, materiales, servicios y **tecnología** que se lleven a cabo con la finalidad directa o indirecta de proporcionar suministros a una institución militar o a otro establecimiento de defensa;”

9. Chile - El Salvador (Chile - Central America) RTA (in force since 01 Jun. 2002):

“CAPÍTULO 20 EXCEPCIONES

(...) Artículo 20.03

(...) Seguridad nacional

Ninguna disposición de este Tratado se interpretará en el sentido de:

(...) b) impedir a una Parte que adopte cualquier medida que considere necesaria para proteger los intereses esenciales de su seguridad:

(...) i) relativa al comercio de armamento, municiones y pertrechos de guerra y al comercio y las operaciones sobre mercancías, materiales, servicios y **tecnología** que se lleven a cabo con la finalidad directa o indirecta de proporcionar suministros a una institución militar o a otro establecimiento de defensa;”

10. Canada – Costa Rica RTA (in force since 01 Nov. 2002):

“Part Seven: Other Provisions

Chapter XIV: Exceptions

(...) Article XIV.2 National Security

Nothing in this Agreement shall be construed:

(...) 2. to prevent either Party from taking any actions that it considers necessary for the protection of its essential security interests:

a. relating to the traffic in arms, ammunition and implements of war and to such traffic and transactions in other goods, materials, services and **technology** undertaken directly or indirectly for the purpose of supplying a military or other security establishment;

b. taken in time of war or other emergency in international relations; or

c. relating to the implementation of national policies or international agreements respecting the non-proliferation of nuclear weapons or other nuclear explosive devices; or (...)”

11. Panama - El Salvador (Panama - Central America) RTA (in force since 11 Apr. 2003):

“CAPÍTULO 21 – EXCEPCIONES

(...) Artículo 21.03 Seguridad nacional

Ninguna disposición de este Tratado se interpretará en el sentido de:

(...) b) impedir a una Parte que adopte cualquier medida que considere necesaria para proteger sus intereses esenciales en materia de seguridad:

i) relativa al comercio de armamento, municiones y pertrechos de guerra y al comercio y las operaciones sobre mercancías, materiales, servicios y **tecnología** que se lleven a cabo con la finalidad directa o indirecta de proporcionar suministros a una institución militar o a otro establecimiento de defensa;”

12. EU – Montenegro RTA (Goods: in force since 01 Jan. 2008; Services: in force since 01 May 2010):

“TITLE II

POLITICAL DIALOGUE

Article 10

(...) 3. The Parties consider that the proliferation of weapons of mass destruction (WMD) and their means of delivery, both to state and non-state actors, represents one of the most serious threats to international stability and security. The Parties therefore agree to cooperate and to contribute to countering the proliferation of weapons of mass destruction and their means of delivery through full compliance with and national implementation of their existing obligations under international disarmament and non-proliferation Treaties and Agreements and other relevant international obligations. The Parties agree that this provision constitutes an essential

element of this Agreement and will be part of the political dialogue that will accompany and consolidate these elements.

The Parties furthermore agree to cooperate and to contribute to countering the proliferation of weapons of mass destruction and their means of delivery by:

- (a) taking steps to sign, ratify, or accede to, as appropriate, and fully implement all other relevant international instruments;
- (b) establishing an effective system of national export controls, controlling the export as well as the transit of WMD-related goods, including a WMD end-use control on dual use **technologies** and containing effective sanctions for breaches of export controls;
- (c) Political dialogue on this matter may take place on a regional basis.”

13. El Salvador - Honduras - Chinese Taipei RTA (in force since 01 mar. 2008):

“Article 3

2. Nothing in the present Agreement shall preclude the right of any of the Parties from applying any measures of state regulation it deems necessary, if these measures concern the following:

- assurance of national security, including prevention of the outflow of confidential information referred to state secrets;
- trade in weapons, ammunition and materiel, provision of services of a military nature, transfer of **technologies** and provision of services for the manufacture of armaments and materiel, as well as for other military purposes; (...)”

14. El Salvador - Honduras - Chinese Taipei RTA (in force since 01 mar. 2008):

“CHAPTER 16: EXCEPTIONS

(...) Article 16.03 National Security

Nothing in this Agreement shall be construed:

(...) (b) to prevent a Party from taking any actions that it considers necessary for the protection of its essential security interests:

- (i) relating to the traffic in arms, ammunitions and implements of war and to such traffic and transactions in other goods, materials, services and **technology** undertaking directly or indirectly for the purposes of supplying a military or other security establishment;”

15. EU – Bosnia Herzegovina (Goods: in force since 11 Jul. 2008; Services: 12 Jan. 2016):

“TITLE II POLITICAL DIALOGUE

(...) 3. The Parties consider that the proliferation of WMD and their means of delivery, both to state and non-state actors, represents one of the most serious threats to international stability and security. The Parties therefore agree to cooperate and to contribute to countering the proliferation of weapons of mass destruction and their means of delivery through full compliance with and national implementation of their existing obligations under international disarmament and non-proliferation treaties and agreements and other relevant international obligations. The Parties agree that this provision constitutes an essential element of this Agreement and will be part of the political dialogue that will accompany and consolidate these elements. The Parties furthermore agree to cooperate and to contribute to countering the proliferation of weapons of mass destruction and their means of delivery by:

- (a) taking steps to sign, ratify, or accede to, as appropriate, and fully implement all other relevant international instruments;
- (b) establishing an effective system of national export controls, controlling the export as well as the transit of WMD-related goods, including a WMD end-use control on dual use **technologies** and containing effective sanctions for breaches of export controls. Political dialogue on this matter may take place on a regional basis.”

16. Chile – Honduras (Chile – Central America) RTA (in force since 19 Jul. 2008):

“CAPÍTULO 20 – EXCEPCIONES

Artículo 20.03 - Seguridad nacional

(...) b) impedir a una Parte que adopte cualquier medida que considere necesaria para proteger los intereses esenciales de su seguridad:

(...) i) relativa al comercio de armamento, municiones y pertrechos de guerra y al comercio y las operaciones sobre mercancías, materiales, servicios y **tecnología** que se lleven a cabo con la finalidad directa o indirecta de proporcionar suministros a una institución militar o a otro establecimiento de defensa;”

17. Panama – Costa Rica (Panama – Central America) RTA (in force since 23 Nov. 2008):

“Artículo 21.03 Seguridad nacional

Ninguna disposición de este Tratado se interpretará en el sentido de:

(...) b) impedir a una Parte que adopte cualquier medida que considere necesaria para proteger sus intereses esenciales en materia de seguridad:

i) relativa al comercio de armamento, municiones y pertrechos de guerra y al comercio y las operaciones sobre mercancías, materiales, servicios y **tecnología** que se lleven a cabo con la finalidad directa o indirecta de proporcionar suministros a una institución militar o a otro establecimiento de defensa; (...)”

18. EU – Albania RTA (Goods: in force since 01 Dec. 2006; Services: in force since 01 Apr. 2009):

“TITLE II – POLITICAL DIALOGUE

(...) Article 8

3. The Parties consider that the proliferation of weapons of mass destruction and their means of delivery, both to State and non-State actors, represents one of the most serious threats to international stability and security. The Parties therefore agree to cooperate and to contribute to countering the proliferation of weapons of mass destruction and their means of delivery through full compliance with and national implementation of their existing obligations under international disarmament and non-proliferation treaties and agreements and other relevant international obligations. The Parties agree that this provision constitutes an essential element of this Agreement and shall be part of the political dialogue that shall accompany and consolidate these elements.

The Parties furthermore agree to cooperate and to contribute to countering the proliferation of weapons of mass destruction and their means of delivery by:

— taking steps to sign, ratify, or accede to, as appropriate, and fully implement all other relevant international instruments,

— the establishment of an effective system of national export controls, controlling the export as well as the transit of WMD-related goods, including a WMD end-use control on dual-use **technologies** and containing effective sanctions for breaches of export controls.

Political dialogue on this matter may take place on a regional basis.”

19. Panama – Nicaragua RTA (in force since 21 Nov. 2009):

“CAPÍTULO 21 – EXCEPCIONES

(...) Artículo 21.03 Seguridad nacional

Ninguna disposición de este Tratado se interpretará en el sentido de:

(...) b) impedir a una Parte que adopte cualquier medida que considere necesaria para proteger sus intereses esenciales en materia de seguridad:

i) relativa al comercio de armamento, municiones y pertrechos de guerra y al comercio y las operaciones sobre mercancías, materiales, servicios y **tecnología** que se lleven a

cabo con la finalidad directa o indirecta de proporcionar suministros a una institución militar o a otro establecimiento de defensa;”

20. EU – Serbia RTA (Goods: in force since 31 May 2010; Services: in force since 20 Dec. 2013):

“ TITLE I – GENERAL PRINCIPLES

(...) Article 3

The Parties consider that the proliferation of weapons of mass destruction (hereinafter also referred to as ‘WMD’) and their means of delivery, both to state and non-state actors, represents one of the most serious threats to international stability and security. The Parties therefore agree to cooperate and to contribute to countering the proliferation of weapons of mass destruction and their means of delivery through full compliance with and national implementation of their existing obligations under international disarmament and non-proliferation Treaties and Agreements and other relevant international obligations. The parties agree that this provision constitutes an essential element of this Agreement and will be part of the political dialogue that will accompany and consolidate these elements.

The Parties furthermore agree to cooperate and to contribute to countering the proliferation of weapons of mass destruction and their means of delivery by:

— taking steps to sign, ratify, or accede to, as appropriate, and fully implement all other relevant international instruments;

— the establishment of an effective system of national export controls, controlling the export as well as the transit of WMD-related goods, including a WMD end-use control on dual use **technologies** and containing effective sanctions for breaches of export controls. Political dialogue on this matter may take place on a regional basis. »

21. Canada – Jordan RTA (in force since 01 Oct. 2012):

“Chapter 15: Exceptions

(...) Article 15-2: National Security

Nothing in this Agreement shall be construed:

(...) (b) to prevent either Party from taking any actions that it considers necessary for the protection of its essential security interests:

(i) relating to the traffic in arms, ammunition and implements of war and to such traffic and transactions in other goods, materials, services and **technology** undertaken directly or indirectly for the purpose of supplying a military or other security establishment;”

22. Chile – Nicaragua (Chile – Central America) RTA (in force since 19 Oct. 2012):

“CAPÍTULO 20

EXCEPCIONES

Artículo 20.03 Seguridad nacional

Ninguna disposición de este Tratado se interpretará en el sentido de:

(...) b) impedir a una Parte que adopte cualquier medida que considere necesaria para proteger los intereses esenciales de su seguridad:

(...) Artículo 20.04

i) relativa al comercio de armamento, municiones y pertrechos de guerra y al comercio y las operaciones sobre mercancías, materiales, servicios y **tecnología** que se lleven a cabo con la finalidad directa o indirecta de proporcionar suministros a una institución militar o a otro establecimiento de defensa; (...)”

23. EU – Central America²⁷⁸ (in force since 01 Aug. 2013):

“PART II
POLITICAL DIALOGUE
Article 15 – Weapons of Mass Destruction
(...) 4. The Parties furthermore agree to cooperate and to contribute to the objective of non-proliferation by:
(...) (b) establishing an effective system of national export controls controlling the export as well as transit of weapons of mass destruction related goods, including weapons of mass destruction end-use control on dual-use **technologies** and containing effective sanctions for breaches of export controls.

Article 16 – Fight Against Terrorism
(...) 2. They shall do so in particular:
(...) (f) by technical assistance and training on methods of investigation, information **technology**, design of protocols on prevention, alerts and effective response to terrorist threats or acts; and

24. Canada – Korea RTA (in force since 01 Jan. 2015):

“Chapter twenty-two: Exceptions
(...) Article 22.2: National Security
This Agreement is not to be construed:
(a) to require either Party to furnish or allow access to information if that Party determines that the disclosure of the information would be contrary to its essential security interests;
(b) to prevent either Party from taking actions that it considers necessary for the protection of its essential security interests:
(i) relating to the traffic in arms, ammunition, and implements of war and to traffic and transactions in other goods, materials, services, and **technology** undertaken directly or indirectly for the purpose of supplying a military or other security establishment;”

25. EU – Georgia RTA (in force since 01 Sep. 2014):

“TITLE II
POLITICAL DIALOGUE AND REFORM, COOPERATION IN THE FIELD OF FOREIGN AND SECURITY POLICY
(...) Article 10 – Weapons of mass destruction
(...) 2. The Parties furthermore agree to cooperate and to contribute to countering the proliferation of WMD and their means of delivery by:
(...) (b) establishing an effective system of national export controls, controlling the export as well as transit of WMD-related goods, including a WMD end-use control on dual-use **technologies**, and containing effective sanctions for breaches of export controls. (...)”

5.2.2.18 Measures related to Textiles and Apparel

The selected excerpts of the 8 RTAs that mention “technology” or its variations in provisions related to Textiles and Apparel are transcribed below for ease of reference:

²⁷⁸ According to the WTO RTAs Database, the signatories parties from Central America are: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

1. United States – Chile RTA (in force since 01 Jan. 2004):

“Section G - Textiles and Apparel

Article 3.19: Bilateral Emergency Actions

(...) 2. In determining serious damage, or actual threat thereof, the importing Party:

(a) shall examine the effect of increased imports from the other Party on the particular industry, as reflected in changes in such relevant economic variables as output, productivity, utilization of capacity, inventories, market share, exports, wages, employment, domestic prices, profits and investment, none of which is necessarily decisive; and

(b) shall not consider changes in **technology** or consumer preference as factors supporting a determination of serious damage or actual threat thereof.”

2. United States - Australia RTA (in force since 01 Jan. 2005):

“CHAPTER FOUR TEXTILES AND APPAREL

ARTICLE 4.1: BILATERAL EMERGENCY ACTIONS

(...)

2. In determining serious damage, or actual threat thereof, the importing Party:

(a) shall examine the effect of increased imports from the exporting Party on the particular industry, as reflected in changes in such relevant economic variables as output, productivity, utilization of capacity, inventories, market share, exports, wages, employment, domestic prices, profits, and investment, none of which is necessarily decisive; and

(b) shall not consider changes in **technology** or consumer preference as factors supporting a determination of serious damage or actual threat thereof.”

3. United States – Morocco RTA (in force since 01 Jan. 2006):

“CHAPTER FOUR TEXTILES AND APPAREL

(...) ARTICLE 4.2: SPECIAL TEXTILE AND APPAREL SAFEGUARD ACTIONS

(...) 2. In determining serious damage, or actual threat thereof, the importing Party:

(...) (b) shall not consider changes in **technology** or consumer preference as factors supporting a determination of serious damage or actual threat thereof.”

4. United States – Bahrain RTA (in force since 01 Aug. 2006):

“CHAPTER THREE TEXTILES AND APPAREL

(...) ARTICLE 3.1: BILATERAL EMERGENCY ACTION

(...) 2. In determining serious damage, or actual threat thereof, the importing Party:

(...) (b) shall not consider changes in **technology** or consumer preference as factors supporting a determination of serious damage or actual threat thereof.”

5. United States – Oman RTA (in force since 01 Jan. 2009):

“CHAPTER THREE TEXTILES AND APPAREL

ARTICLE 3.1: BILATERAL EMERGENCY ACTIONS

(...) 2. In determining serious damage, or actual threat thereof, the importing Party:

(a) shall examine the effect of increased imports of the good from the exporting Party on the particular industry, as reflected in changes in such relevant economic variables as output, productivity, utilization of capacity, inventories, market share, exports, wages, employment, domestic prices, profits, and investment, none of which is necessarily decisive; and

(b) shall not consider changes in **technology** or consumer preference as factors supporting a determination of serious damage or actual threat thereof.”

6. United States – Peru RTA (in force since 01 Feb. 2009):

“Chapter Three Textiles and Apparel

Article 3.1: Textile Safeguard Measures

(...) 2. In determining serious damage, or actual threat thereof, the importing Party:

(a) shall examine the effect of increased imports of the good of the exporting Party or Parties on the particular industry, as reflected in changes in such relevant economic variables as output, productivity, utilization of capacity, inventories, market share, exports, wages, employment, domestic prices, profits and losses, and investment, none of which, either alone or combined with other factors, shall necessarily be decisive; and

(b) shall not consider changes in consumer preference or changes in **technology** in the importing Party as factors supporting a determination of serious damage or actual threat thereof.

Article 21.4: Consultations

(...) 4. Consultations may be held in person or by any **technological** means available to the Parties. If in person, consultations shall be held in the capital of the consulted Party, unless otherwise agreed.”

7. Korea – United States RTA (in force since 15 Mar. 2012):

“CHAPTER FOUR TEXTILES AND APPAREL

ARTICLE 4.1: BILATERAL EMERGENCY ACTIONS

(...) 2. In determining serious damage, or actual threat thereof, the importing Party:

(a) shall examine the effect of increased imports of the good from the exporting Party on the particular industry, as reflected in changes in such relevant economic variables as output, productivity, utilization of capacity, inventories, market share, exports, wages, employment, domestic prices, profits, and investment, none of which is necessarily decisive; and

(b) shall not consider changes in **technology** or consumer preference as factors supporting a determination of serious damage or actual threat thereof.

CHAPTER THIRTEEN FINANCIAL SERVICES

(...) SECTION C: PERFORMANCE OF FUNCTIONS

1. The Parties recognize the benefits of allowing a financial institution in a Party's territory to perform certain functions at its head office or affiliates located inside or outside the Party's territory. To the extent practicable, each Party should allow such an office or affiliate to perform these functions.

These functions generally include, but are not limited to:

(a) trade and transaction processing functions, including confirmation and statement production;

(b) **technology**-related functions, such as data processing, programming, and system development; (...)”

8. United States – Colombia RTA (in force since 15 May 2012):

“Chapter Three Textiles and Apparel

Article 3.1: Textile Safeguard Measures

(...) 2. In determining serious damage, or actual threat thereof, the importing Party:

(...) (b) shall not consider changes in consumer preference or changes in **technology** in the importing Party as factors supporting a determination of serious damage or actual threat thereof.”

5.2.2.19 *In provisions on Trade in Services*

The selected excerpts of the 3 RTAs that mention “technology” or its variations in provisions on trade in services are transcribed below for ease of reference:

1. **New Zealand – Singapore RTA (in force since 01 Jan. 2001):**

“PART 5: SERVICES

Article 15 Scope

1 This Part shall apply to measures by Parties affecting trade in services.

2 New services, including new financial services, shall be considered for possible incorporation into this Agreement at future reviews held in accordance with Article 68, or at the request of either Party immediately. The supply of services which are not technically or **technologically** feasible when this Agreement comes into force shall, when they become feasible, also be considered for possible incorporation at future reviews or at the request of either Party immediately.”

2. **ASEAN – China RTA (Goods: in force since 01 Jan. 2005; Services: 01 Jul. 2007):**

“Agreement on trade in services:

Article 17 – Increasing Participation of Cambodia, Lao PDR, Myanmar and Viet Nam
The increasing participation of Cambodia, Lao PDR, Myanmar, and Viet Nam in this Agreement shall be facilitated through negotiated specific commitments, relating to:
(a) the strengthening of their domestic services capacity and its efficiency and competitiveness, inter alia through access to **technology** on a commercial basis;

3. **ASEAN – Australia – New Zealand RTA (in force since 01 Jan. 2010):**

“CHAPTER 8 TRADE IN SERVICES

(...) Article 20

Increasing Participation for Newer ASEAN Member States

In order to increase the benefits of this Chapter for the newer ASEAN Member States, and in accordance with the objectives of and the Preamble to this Agreement and the objectives of Chapter 12 (Economic Co-operation), the Parties recognise the importance of according special and differential treatment to the newer ASEAN Member States and facilitating their participation in this Chapter through negotiated specific commitments relating to:

(a) strengthened domestic services capacity and its efficiency and competitiveness, inter alia, through access to **technology** on a commercial basis; (...)

5.2.2.20 *In Dispute Settlement provisions*

The selected excerpts of the 2 RTAs that mention “technology” or its variations in provisions on dispute settlement are transcribed below for ease of reference:

1. **Costa Rica – China RTA (in force since 01 Aug. 2011):**

“Chapter 14 – Dispute Settlement

(...) Article 143: Consultations

(...) 6. Consultations may be held in person or by any **technological** means available to the Parties. In the event that the Parties decide to hold consultations in person, these shall be held in a place agreed by the Parties, or if there is no agreement, in the capital of the requested Party.

(...) Article 148: Rules of Procedure of the Panel

1. The Commission shall establish Rules of Procedure, no later than during its first session, which shall ensure:

(...) (c) the possibility of using **technological** means to conduct the proceedings.”

2. EU – Colombia, Ecuador and Peru RTA (in force since 01 Mar. 2013):

“Article 104 – Dispute Settlement

(...) 2. Unless otherwise agreed by the Parties to the dispute, when a dispute has been subject to consultations within the SPS Sub-committee according to paragraph 1, such consultations shall replace the consultations foreseen in Article 301 provided that those consultations meet the requirements established in paragraph 9 of that Article. Consultations in the SPS Sub-committee shall be deemed concluded within 30 days following the date of submission of the request, unless the consulting Parties agree to continue with the consultations. These consultations may be held via videophone conference, videoconference, or any other **technological** means mutually agreed by the consulting Parties.”

TITLE XII – DISPUTE SETTLEMENT

(...) CHAPTER 2 – Consultations

Article 301 – Consultations

(...) 5. Unless the consulting Parties agree otherwise, consultations shall be held and deemed concluded within 30 days following the date of the receipt of the request by the requested Party and shall take place, in the territory of the requested Party. Upon agreement of the parties to the dispute, the consultations may take place by any **technological** means available. The consultations and all information disclosed during the consultations shall be confidential”

5.2.2.21 In Computer Services provisions

The selected excerpts of the 4 RTAs that mention “technology” or its variations in computer services provisions are transcribed below for ease of reference:

1. EU – CARIFORUM States²⁷⁹ RTA (in force since 29 Dec. 2008):

“CHAPTER 5 – Regulatory framework

Section 2 – Computer services

Article 88 – Understanding on computer services

(...) 2. CPC 84, the United Nations code used for describing computer and related services, covers the basic functions used to provide all computer and related services: computer programs defined as the sets of instructions required to make computers work and communicate (including their development and implementation), data processing and storage, and related services, such as consultancy and training services for staff of clients. **Technological** developments have led to the increased offering of these services as a bundle or package of related services that can include some or all of these basic functions. For example, services such as web or domain hosting, data mining services and grid computing each consist of a combination of basic computer services functions.

2. EU – Korea RTA (in force since 01 Jul. 2011):

“Sub-section B – Computer services

Article 7.25 – Computer services

²⁷⁹ According to the WTO RTAs Database, the CARIFORUM States at that point of time were: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

1. In liberalising trade in computer services in accordance with Sections B through D, the Parties subscribe to the understanding set out in the following paragraphs.

2. CPC [30] 84, the United Nations code used for describing computer and related services, covers the basic functions used to provide all computer and related services including computer programs defined as the sets of instructions required to make computers work and communicate (including their development and implementation), data processing and storage, and related services, such as consultancy and training services for staff of clients. **Technological** developments have led to the increased offering of these services as a bundle or package of related services that can include some or all of these basic functions. For example, services such as web or domain hosting, data mining services and grid computing consist of a combination of basic computer services functions respectively.

3. EU – Central America²⁸⁰ (in force since 01 Aug. 2013):

“SECTION B – Computer services

Article 180 – Understanding on Computer Services

(...) 2. CPC 84 (1), the United Nations code used for describing computer and related services, covers the basic functions used to provide all computer and related services: computer programs defined as the sets of instructions required to make computers work and communicate (including their development and implementation), data processing and storage, and related services, such as consultancy and training services for staff of clients. **Technological** developments have led to the increased offering of these services as a bundle or package of related services that can include some or all of these basic functions. For example, services such as web or domain hosting, data mining services and grid computing each consist of a combination of basic computer services functions.”

4. EU – Colombia, Ecuador and Peru RTA (in force since 01 Mar. 2013):

“CHAPTER 5 Regulatory framework

(...) Section 2 – Computer Services

Article 132 – Understanding on Computer Services

To the extent that trade in computer services is liberalised in accordance with Chapters 2 (Establishment), 3 (Cross-Border Supply of Services) and 4 (Temporary Presence of Natural Persons for Business Purposes), the Parties subscribe to the understanding set out in the following subparagraphs:

(a) the CPC 84 code, used for describing computer and related services, covers the basic functions used to provide all computer and related services: computer programmes defined as the sets of instructions required to make computers work and communicate (including their development and implementation), data processing and storage, and related services, such as consultancy and training services for staff of clients. **Technological** developments have led to the increased offering of these services as a bundle or package of related services that can include some or all of these basic functions. For example, services such as web or domain hosting, data mining services and grid computing each consist of a combination of basic computer services functions;”

²⁸⁰ According to the WTO RTAs Database, the signatories parties from Central America are: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

5.2.2.22 *Miscellanea*

The selected excerpts of the 17 RTAs that mention “technology” or its variations in provisions on various issues that could not be classified in the other previous categories are transcribed below for ease of reference:

1. EU Overseas Countries and Territories (OCT) (in force since 01 Jan. 1971):

“Article 85 – Implementation

(...) 4. The relevant authorities of the OCTs and the Commission shall be jointly responsible for:

(...) 5. To facilitate the exchanges of views, technical meetings shall be held at least once a year between the Territorial Authorising Officers, the Member States concerned and representatives of the Commission involved in the programming, notably through the use of modern **technologies** or, if possible, as an extension of the OCTs-EU Forum dialogue.

PART FIVE

FINAL PROVISIONS

Article 95 – Delegation of powers to the Commission

The Commission shall be empowered to adopt delegated acts amending the Appendices of Annex VI for the purpose of taking into account **technological** development and changes in customs legislation, in accordance with the procedure laid down in Article 96.”

2. Caribbean Community and Common Market (CARICOM) – Protocol Amending the Treaty Establishing the Caribbean Community (Protocol III: Industrial Policy) (Goods: in force since 01 Aug. 1973; Services: in force since 04 Jul. 2002):

“ARTICLE VIII

Replace Article 49 with the following:

"Article 49 – Marketing of Agricultural Products

1. The Community shall, in collaboration with competent national, regional and international organizations, promote the development of effective agricultural marketing systems in order to respond to, influence and generate market demand for agricultural products of Member States.

2. In effecting the promotion referred to in paragraph 1, the Community shall pay particular attention to:

- (a) improved post-harvest **technology**;
- (b) market information, intelligence and planning;
- (c) risk insurance; and
- (d) efficient distribution services.

PROTOCOL AMENDING THE TREATY ESTABLISHING
THE CARIBBEAN COMMUNITY
(PROTOCOL VI: TRANSPORT POLICY)

(...) Article 3: Implementation of Community Transport Policy

(...) 1. In order to achieve the objectives of the Community Transport Policy, the Council for Trade and Economic Development (COTED) shall, in collaboration with other Organs of the Community as appropriate, promote, inter alia:

(...) d. the establishment of measures:

- i. to ensure that the development of the transport sector does not impact adversely on the environment of Member States and, in particular, the Caribbean Sea;
- ii. for the acquisition and transfer of **technology** in the transport sector; and

iii. for the establishment of joint ventures and programmes for human resources development; and”

3. Australia - Papua New Guinea (PATCRA) RTA (in force since 01 Feb. 1977):

“Article 18 – Promotion of trade

1. For the purpose of promoting trade between the Member States, each Member State shall, within its competence and subject to its laws, encourage and facilitate:

(a) the interchange of commercial and technical representatives, groups and delegations; and

(b) the holding of, and participation in, trade fairs, trade exhibitions and other promotion activities in the fields of trade and **technology** in its territory by enterprises and organisations from the other Member State.”

4. Latin American Integration Association (LAIA) RTA (in force since 18 Mar. 1981):

“CHAPTER II – Mechanisms

(...) Third section – Partial scope agreements

(...) Article 14

Member countries may establish, through the corresponding regulations, specific rules to conclude other modalities of partial scope agreements.

For this purpose, they shall take into consideration, among other matters, scientific and **technological** cooperation, tourism promotion and preservation of the environment.

(...) First section - Regional scope agreements

(...) Second section - Partial scope agreements

(...) Article 21 – In order to facilitate utilization of tariff cuts, member countries may set up cooperation programmes and actions in the fields of pre-investment, financing and **technology**, mainly directed towards supporting the relatively less developed countries, with special regard, among them, to landlocked countries.”

5. United States – Jordan RTA (in force since 17 Dec. 2001):

“ARTICLE 8: VISA COMMITMENTS

1. Subject to its laws relating to the entry, sojourn and employment of aliens, each Party shall permit to enter and to remain in its territory nationals of the other Party solely to carry on substantial trade, including trade in services or trade in **technology**, principally between the Parties.”

6. EFTA – Chile RTA (in force since 01 Dec. 2004):

“ARTICLE 16

Sanitary and phytosanitary measures

(...) 5. In order to permit the efficient use of resources, the Parties shall, to the extent possible, endeavour to use modern **technological** means of communication, such as electronic communication, video or telephone conference, or arrange for meetings referred to in paragraph 3 to take place back-to-back with Joint Committee meetings or with sanitary and phytosanitary meetings in the framework of the WTO. The results of expert consultations convened in accordance with paragraph 3 shall be reported to the Joint Committee.”

7. Japan – Thailand RTA (in force since 01 Nov. 2007):

“Chapter 9

Movement of Natural Persons

(...) Article 117 – Specific Commitments

1. Each Party shall set out in Annex 7 the specific commitments it undertakes for any of the following categories:

(...) (e) natural persons of the other Party who engage in business activities, which require **technology** or knowledge at an advanced level or which require specialised skills belonging to particular fields of industry, on the basis of a personal contract with public or private organisations in the former Party; and (...)"

8. EU – CARIFORUM States²⁸¹ RTA (in force since 29 Dec. 2008):

“CHAPTER 5 – Regulatory framework

Section 7 – Tourism services

(...) Article 112 – Access to **technology**

The EC Party and the Signatory CARIFORUM States shall endeavour to facilitate the transfer of **technology** on a commercial basis to commercial presences in the Signatory CARIFORUM States.”

9. ASEAN - Korea RTA – Trade in Services (Goods: in force since 01 Jan. 2010; Services: in force since 01 May 2009):

“Article 18

Increasing Participation of new ASEAN Member Countries

The increasing participation of new ASEAN Member Countries on trade in services shall be facilitated through negotiated specific commitments, relating to:

(a) the strengthening of their domestic services capacity and its efficiency and competitiveness, inter alia through access to **technology** on a commercial basis;”

10. EU – Korea RTA (in force since 01 Jul. 2011):

“ANNEX 7-D

THE ADDITIONAL COMMITMENT ON FINANCIAL SERVICES

Transfer of information

1. The Parties recognise the importance of the cross-border transfer of information by financial service suppliers. Korea has expressed its intent to undertake modification to its regulatory regime that will result in its adoption of approaches that will permit the transfer of financial information across borders while addressing such areas as the protection of sensitive information of consumers, prohibitions on unauthorised reuse of the sensitive information, the ability of financial regulators to have access to records of financial service suppliers relating to the handling of such information, and requirements for the location of **technology** facilities [1].

Performance of functions

2. The Parties recognise the benefits of allowing a financial service supplier in a Party’s territory to perform certain functions at its head office or affiliates located inside or outside the Party’s territory. To the extent practicable, each Party should allow such an office or affiliate to perform these functions which generally include, but are not limited to:

(a) trade and transaction processing functions, including confirmation and statement production;

(b) **technology**-related functions, such as data processing [2], programming and system development;”

11. Peru – EFTA²⁸² RTA (in force since 01 Jul. 2011):

“CHAPTER 2 – TRADE IN GOODS

²⁸¹ According to the WTO RTAs Database, the CARIFORUM States at that point of time were: Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago.

²⁸² According to the WTO RTAs Database, EFTA in this case comprises: Iceland; Liechtenstein; Norway; Switzerland.

(...) 7. The Parties hereby establish a forum for SPS experts. The forum shall meet when requested by one of the Parties. In order to permit the efficient use of resources, the Parties shall, to the extent possible, endeavour to use **technological** means of communication, such as electronic communication, video or phone conference, or arrange for meetings to take place in conjunction with Joint Committee meetings or with meetings of the WTO Committee on Sanitary and Phytosanitary Measures. The forum shall inter alia: (...)"

12. Costa Rica – China RTA (in force since 01 Aug. 2011):

“Chapter 8 – Trade Remedies

(...) Section B Bilateral Safeguard Measures

(...) Article 82: Provisional Bilateral Safeguard Measures

(...) Article 83: Notification and Consultation

(...) 4. Consultations may be held in person or by any **technological** means available to the Parties.

Chapter 13 – Administration of the Agreement

(...) Article 138: Committees and Working Groups

(...) 4. Regular sessions of the committees and working groups shall be chaired successively by each Party. The sessions may be held by any **technological** means available to the Parties.”

13. EU - Eastern and Southern Africa States²⁸³ RTA (in force since 14 May 2012):

“TITLE III

Inland fisheries and aquaculture development

Article 33 – Scope

The scope of this Title shall cover inland fisheries, coastal and aquaculture development in the ESA region with respect to capacity building, **technology** transfer, Sanitary and Phytosanitary (SPS) standards, investment, and investment finance, environmental protection as well as legal and regulatory frame- works. (...)"

14. EU – Colombia, Ecuador and Peru RTA (in force since 01 Mar. 2013):

“CHAPTER 5 – Sanitary and phytosanitary measures

(...) Article 97 – Notification and Consultation

(...) 4. Consultations referred to in paragraph 3 may be held by e-mail, video or audio conference, or any other **technological** means available to the Parties. The Party requesting the consultations shall ensure the preparation of the minutes of such consultations.

TITLE IV

TRADE IN SERVICES, ESTABLISHMENT AND ELECTRONIC COMMERCE

(...) CHAPTER 4

Temporary presence of natural persons for business purposes

(...) Article 126 Contractual Services Suppliers

(...) 2. Colombia and the EU Party shall allow the supply of services into their territory through presence of natural persons, by contractual services suppliers of the EU Party and Colombia respectively subject to the conditions specified in paragraph 4 and in Appendix 2 of Annex IX (Reservations Regarding Temporary Presence of Natural Persons for Business Purposes) for each of the following sectors:

(...) (r) services in cosmetics **technology**;

(s) specialised services in **technology**, engineering, marketing and sales for the automotive sector;

²⁸³ According to the WTO RTAs Database, the Eastern and Southern Africa States abovementioned are: Mauritius; Seychelles; Zimbabwe.

Article 127 Independent Professionals

(...) 2. Colombia and the EU Party shall allow the supply of services into their territory by independent professionals of the EU Party and Colombia respectively through presence of natural persons, subject to the conditions specified in the paragraph 4 and in Appendix 2 of Annex IX (Reservations Regarding Temporary Presence of Natural Persons for Business Purposes) for each of the following sectors:

(...) (j) specialised services in **technology**, engineering, marketing and sales for the automotive sector.”

15. EU – Central America²⁸⁴ (in force since 01 Aug. 2013):

“TITLE II
INSTITUTIONAL FRAMEWORK

(...) Article 8
Sub-Committees

(...) 3. Sub-Committees shall meet once per year or at the request of either Party or of the Association Committee, at an appropriate level. When in person, meetings shall be held alternately in Brussels or Central America. Meetings may also be held by any **technological** mean available to the Parties.

TITLE XIII
SPECIFIC TASKS IN TRADE MATTERS OF THE BODIES ESTABLISHED
UNDER THIS AGREEMENT

(...) Article 348 – Sub-Committees

(...) 3. The Sub-Committees shall meet once per year or at the request of either Party or of the Association Committee, at an appropriate level. When in person, meetings shall be held alternately in Brussels or Central America. Meetings may also be held by any **technological** mean available to the Parties.”

16. Korea – Australia RTA (in force since 12 Dec. 2014):

“ARTICLE 19: REVIEW

1. The Parties recognise the evolving nature of the audiovisual sector, in particular the role of **technology**.

Section B: Performance of Functions

1. The Parties recognise the benefits of allowing a financial institution in a Party's territory to perform certain functions at its head office or affiliates located inside or outside the Party's territory. To the extent possible, each Party shall allow such an office or affiliate to perform these functions. These functions generally include, but are not limited to:

(a) trade and transaction processing functions, including confirmation and statement production;

(b) **technology**-related functions, such as data processing, programming, and system development; (...)”

17. Eurasian Economic Union (EAEU)²⁸⁵ (in force since 01 Jan. 2015):

“Section XVIII
COMMON PRINCIPLES AND RULES OF COMPETITION

(...) Article 76 – Common Rules of Competition

1. Actions (inaction) of the business entities (market entities) with a dominant position resulted in prevention, restriction, elimination of the competition and (or)

²⁸⁴ According to the WTO RTAs Database, the signatories parties from Central America are: Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama.

²⁸⁵ According to the WTO RTA Database, the EAEU is comprised of: Armenia; Belarus; Kazakhstan; Kyrgyz Republic; Russian Federation.

infringement of interests of other persons, including the following actions (inaction), are forbidden:

(...) 3) imposition on the counter-partner economically or **technologically** unreasonable terms of the agreement which are unprofitable for him or do not relate to subject of the agreement;

(...) 6) economically, **technologically** or otherwise unreasonable establishment of various prices (tariffs) for the same goods, creation of discriminatory conditions with specificities provided for in this Treaty and/or other international agreements of the member States;”

5.3 Annex C: List of RTAs in force available at the WTO RTAs Database until 30 Apr. 2023

Source of the data contained in the Table below:

WTO RTAs Database. RTAs in force (until 13th March 2013). Available at: <<https://rtais.wto.org/UI/PublicAllRTAList.aspx>>. Accessed: 13 March 2023 (the cut-off date for the purposes of the assessments conducted in this thesis).

Table 53: List of RTAs in force available at the WTO RTAs Database until 30 Apr. 2023

N.	RTA Name ²⁸⁶	Coverage	Type	Date of entry into force	Signatories ²⁸⁷
1	Agadir Agreement	Goods	FTA	27/mar/07	Jordan; Morocco; Tunisia; Egypt
2	Andean Community (CAN)	Goods	CU	25-May-1988	Bolivia, Plurinational State of; Colombia; Ecuador; Peru; Venezuela, Bolivarian Republic of
3	Argentina - Mexico	Goods	PSA	01/jan/87	Argentina; Mexico
4	Armenia - Kazakhstan	Goods	FTA	25-Dec-2001	Armenia; Kazakhstan
5	Armenia - Moldova, Republic of	Goods	FTA	21-Dec-1995	Armenia; Moldova, Republic of
6	Armenia - Turkmenistan	Goods	FTA	07/jul/96	Armenia; Turkmenistan
7	Armenia - Ukraine	Goods	FTA	18-Dec-1996	Armenia; Ukraine
8	ASEAN - Australia - New Zealand	Goods & Services	FTA & EIA	01/jan/10	Australia; New Zealand; Brunei Darussalam; Myanmar; Cambodia; Indonesia; Lao People's Democratic Republic; Malaysia; Philippines; Singapore; Viet Nam; Thailand
9	ASEAN - China	Goods & Services	FTA & EIA	01-Jan-2005(G ²⁸⁸) / 01-Jul-2007(S ²⁸⁹)	China; Brunei Darussalam; Myanmar; Cambodia; Indonesia; Lao People's Democratic Republic; Malaysia; Philippines; Singapore; Viet Nam; Thailand
10	ASEAN - Hong Kong, China	Goods & Services	FTA & EIA	11/jun/19	Hong Kong, China; Brunei Darussalam; Myanmar; Cambodia; Indonesia; Lao People's Democratic Republic; Malaysia; Philippines; Singapore; Viet Nam; Thailand
11	ASEAN - India	Goods & Services	FTA & EIA	01-Jan-2010(G) / 01-Jul-2015(S)	India; Brunei Darussalam; Myanmar; Cambodia; Indonesia; Lao People's Democratic Republic; Malaysia; Philippines; Singapore; Viet Nam; Thailand
12	ASEAN - Japan	Goods & Services	FTA & EIA	01-Dec-2008(G) / 01-Aug-2020(S)	Japan; Brunei Darussalam; Myanmar; Cambodia; Indonesia; Lao People's Democratic Republic; Malaysia; Philippines; Singapore; Viet Nam; Thailand
13	ASEAN - Korea, Republic of	Goods & Services	FTA & EIA	01-Jan-2010(G) / 01-May-2009(S)	Korea, Republic of; Brunei Darussalam; Myanmar; Cambodia; Indonesia; Lao People's Democratic Republic; Malaysia; Philippines; Singapore; Viet Nam; Thailand
14	ASEAN Free Trade Area (AFTA)	Goods & Services	FTA & EIA	17-May-2010(G) / 12-Aug-1998(S)	Brunei Darussalam; Myanmar; Cambodia; Indonesia; Lao People's Democratic Republic; Malaysia; Philippines; Singapore; Viet Nam; Thailand
15	Asia Pacific Trade Agreement (APTA)	Goods & Services	PSA & EIA	17-Jun-1976(G) / 17-Sep-2013(S)	Bangladesh; Sri Lanka; China; India; Korea, Republic of; Lao People's Democratic Republic
16	Australia - Chile	Goods & Services	FTA & EIA	06/mar/09	Australia; Chile
17	Australia - China	Goods & Services	FTA & EIA	20-Dec-2015	Australia; China
18	Australia - New Zealand Closer Economic Relations Trade Agreement (ANZCERTA)	Goods & Services	FTA & EIA	01-Jan-1983(G) / 01-Jan-1989(S)	Australia; New Zealand
19	Australia - Papua New Guinea (PATCRA)	Goods	FTA	01-Feb-1977	Australia; Papua New Guinea
20	Brazil - Mexico	Goods	PSA	02-May-2003	Brazil; Mexico
21	Brunei Darussalam - Japan	Goods & Services	FTA & EIA	31/jul/08	Brunei Darussalam; Japan
22	Canada - Chile	Goods & Services	FTA & EIA	05/jul/97	Canada; Chile
23	Canada - Colombia	Goods & Services	FTA & EIA	15-Aug-2011	Canada; Colombia
24	Canada - Costa Rica	Goods	FTA	01/nov/02	Canada; Costa Rica
25	Canada - Honduras	Goods & Services	FTA & EIA	01-Oct-2014	Canada; Honduras
26	Canada - Israel	Goods	FTA	01/jan/97	Canada; Israel
27	Canada - Jordan	Goods	FTA	01-Oct-2012	Canada; Jordan
28	Canada - Korea, Republic of	Goods & Services	FTA & EIA	01/jan/15	Canada; Korea, Republic of

²⁸⁶ The list of RTAs' names was herein organized by alphabetical order.

²⁸⁷ The list of signatories was transcribed directly from the way they were included in the WTO RTAs Database. It encompasses countries and territories.

²⁸⁸ Agreement covering Goods.

²⁸⁹ Agreement covering Services.

29	Canada - Panama	Goods & Services	FTA & EIA	01-Apr-2013	Canada; Panama
30	Canada - Peru	Goods & Services	FTA & EIA	01-Aug-2009	Canada; Peru
31	Canada - Ukraine	Goods	FTA	01-Aug-2017	Canada; Ukraine
32	Caribbean Community and Common Market (CARICOM)	Goods & Services	CU & EIA	01-Aug-1973(G) / 04-Jul-2002(S)	Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Grenada; Guyana; Haiti; Jamaica; Montserrat; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago
33	Central American Common Market (CACM)	Goods	CU	04/jun/61	Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama
34	Central European Free Trade Agreement (CEFTA) 2006	Goods	FTA	01-May-2007	Albania; Bosnia and Herzegovina; Moldova, Republic of; North Macedonia; UNMIK/Kosovo; Serbia; Montenegro
35	Chile - China	Goods & Services	FTA & EIA	01-Oct-2006(G) / 01-Aug-2010(S)	Chile; China
36	Chile - Colombia	Goods & Services	FTA & EIA	08-May-2009	Chile; Colombia
37	Chile - Costa Rica (Chile - Central America)	Goods & Services	FTA & EIA	15-Feb-2002	Chile; Costa Rica
38	Chile - El Salvador (Chile - Central America)	Goods & Services	FTA & EIA	01/jun/02	Chile; El Salvador
39	Chile - Guatemala (Chile - Central America)	Goods & Services	FTA & EIA	23/mar/10	Chile; Guatemala
40	Chile - Honduras (Chile - Central America)	Goods & Services	FTA & EIA	19/jul/08	Chile; Honduras
41	Chile - India	Goods	PSA	17-Aug-2007	Chile; India
42	Chile - Indonesia	Goods	FTA	10-Aug-2019	Chile; Indonesia
43	Chile - Japan	Goods & Services	FTA & EIA	03-Sep-2007	Chile; Japan
44	Chile - Malaysia	Goods	FTA	25-Feb-2012	Chile; Malaysia
45	Chile - Mexico	Goods & Services	FTA & EIA	01-Aug-1999	Chile; Mexico
46	Chile - Nicaragua (Chile - Central America)	Goods & Services	FTA & EIA	19-Oct-2012	Chile; Nicaragua
47	Chile - Thailand	Goods & Services	FTA & EIA	05/nov/15	Chile; Thailand
48	Chile - Viet Nam	Goods	FTA	01/jan/14	Chile; Viet Nam
49	China - Costa Rica	Goods & Services	FTA & EIA	01-Aug-2011	China; Costa Rica
50	China - Georgia	Goods & Services	FTA & EIA	01/jan/18	China; Georgia
51	China - Hong Kong, China	Goods & Services	FTA & EIA	29/jun/03	China; Hong Kong, China
52	China - Korea, Republic of	Goods & Services	FTA & EIA	20-Dec-2015	China; Korea, Republic of
53	China - Macao, China	Goods & Services	FTA & EIA	17-Oct-2003	China; Macao, China
54	China - Mauritius	Goods & Services	FTA & EIA	01/jan/21	China; Mauritius
55	China - New Zealand	Goods & Services	FTA & EIA	01-Oct-2008	China; New Zealand
56	China - Singapore	Goods & Services	FTA & EIA	01/jan/09	China; Singapore
57	Colombia - Mexico	Goods & Services	FTA & EIA	01/jan/95	Colombia; Mexico
58	Colombia - Northern Triangle (El Salvador, Guatemala, Honduras)	Goods & Services	FTA & EIA	12/nov/09	Colombia; El Salvador; Guatemala; Honduras
59	Common Economic Zone (CEZ)	Goods	FTA	20-May-2004	Belarus; Kazakhstan; Russian Federation; Ukraine
60	Common Market for Eastern and Southern Africa (COMESA)	Goods	CU	08-Dec-1994	Angola; Burundi; Comoros; Democratic Republic of the Congo; Ethiopia; Eritrea; Kenya; Lesotho; Malawi; Mauritius; Rwanda; Seychelles; Zimbabwe; Sudan; Eswatini; Uganda; Egypt; Tanzania; Zambia
61	Commonwealth of Independent States (CIS)	Goods	FTA	30-Dec-1994	Azerbaijan; Georgia; Turkmenistan; Uzbekistan
62	Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)	Goods & Services	FTA & EIA	30-Dec-2018	Australia; Brunei Darussalam; Canada; Chile; Japan; Malaysia; Mexico; New Zealand; Peru; Singapore; Viet Nam
63	Costa Rica - Colombia	Goods & Services	FTA & EIA	01-Aug-2016	Colombia; Costa Rica
64	Costa Rica - Peru	Goods & Services	FTA & EIA	01/jun/13	Costa Rica; Peru
65	Costa Rica - Singapore	Goods & Services	FTA & EIA	01/jul/13	Costa Rica; Singapore
66	Dominican Republic - Central America	Goods & Services	FTA & EIA	04-Oct-2001	Costa Rica; Dominican Republic; El Salvador; Guatemala; Honduras; Nicaragua

67	Dominican Republic - Central America - United States Free Trade Agreement (CAFTA-DR)	Goods & Services	FTA & EIA	01/mar/06	Costa Rica; Dominican Republic; El Salvador; Guatemala; Honduras; Nicaragua; United States of America
68	East African Community (EAC)	Goods & Services	CU & EIA	07-Jul-2000(G) / 01-Jul-2010(S)	Burundi; Kenya; Rwanda; Uganda; Tanzania
69	Economic and Monetary Community of Central Africa (CEMAC)	Goods	CU	24/jun/99	Cameroon; Central African Republic; Chad; Congo; Equatorial Guinea; Gabon
70	Economic Community of West African States (ECOWAS)	Goods	CU	23-Aug-1995	Cabo Verde; Benin; The Gambia; Ghana; Guinea; Côte d'Ivoire; Liberia; Mali; Niger; Nigeria; Guinea-Bissau; Senegal; Sierra Leone; Togo; Burkina Faso
71	Economic Cooperation Organization (ECO)	Goods	PSA	17-Feb-1992	Iran; Pakistan; Türkiye
72	Ecuador - Mexico	Goods	PSA	01-May-1983	Ecuador; Mexico
73	EFTA - Albania	Goods	FTA	01/nov/10	Albania; Iceland; Liechtenstein; Norway; Switzerland
74	EFTA - Bosnia and Herzegovina	Goods	FTA	01/jan/15	Bosnia and Herzegovina; Iceland; Liechtenstein; Norway; Switzerland
75	EFTA - Canada	Goods	FTA	01/jul/09	Canada; Iceland; Liechtenstein; Norway; Switzerland
76	EFTA - Central America (Costa Rica and Panama)	Goods & Services	FTA & EIA	19-Aug-2014	Costa Rica; Panama; Iceland; Liechtenstein; Norway; Switzerland
77	EFTA - Chile	Goods & Services	FTA & EIA	01-Dec-2004	Chile; Iceland; Liechtenstein; Norway; Switzerland
78	EFTA - Colombia	Goods & Services	FTA & EIA	01/jul/11	Colombia; Iceland; Liechtenstein; Norway; Switzerland
79	EFTA - Ecuador	Goods & Services	FTA & EIA	01/nov/20	Ecuador; Iceland; Liechtenstein; Norway; Switzerland
80	EFTA - Egypt	Goods	FTA	01-Aug-2007	Egypt; Iceland; Liechtenstein; Norway; Switzerland
81	EFTA - Georgia	Goods & Services	FTA & EIA	01-Sep-2017	Georgia; Iceland; Liechtenstein; Norway; Switzerland
82	EFTA - Gulf Cooperation Council (GCC)	Goods & Services	FTA & EIA	01/jul/14	Iceland; Liechtenstein; Norway; Switzerland; Bahrain, Kingdom of; Kuwait, the State of; Oman; Qatar; Saudi Arabia, Kingdom of; United Arab Emirates
83	EFTA - Hong Kong, China	Goods & Services	FTA & EIA	01-Oct-2012	Hong Kong, China; Iceland; Liechtenstein; Norway; Switzerland
84	EFTA - Indonesia	Goods & Services	FTA & EIA	01/nov/21	Indonesia; Iceland; Liechtenstein; Norway; Switzerland
85	EFTA - Israel	Goods	FTA	01/jan/93	Israel; Iceland; Liechtenstein; Norway; Switzerland
86	EFTA - Jordan	Goods	FTA	01-Sep-2002	Jordan; Iceland; Liechtenstein; Norway; Switzerland
87	EFTA - Korea, Republic of	Goods & Services	FTA & EIA	01-Sep-2006	Korea, Republic of; Iceland; Liechtenstein; Norway; Switzerland
88	EFTA - Lebanon	Goods	FTA	01/jan/07	Lebanese Republic; Iceland; Liechtenstein; Norway; Switzerland
89	EFTA - Mexico	Goods & Services	FTA & EIA	01/jul/01	Mexico; Iceland; Liechtenstein; Norway; Switzerland
90	EFTA - Montenegro	Goods	FTA	01-Sep-2012	Montenegro; Iceland; Liechtenstein; Norway; Switzerland
91	EFTA - Morocco	Goods	FTA	01-Dec-1999	Morocco; Iceland; Liechtenstein; Norway; Switzerland
92	EFTA - North Macedonia	Goods	FTA	01-May-2002	North Macedonia; Iceland; Liechtenstein; Norway; Switzerland
93	EFTA - Palestine	Goods	FTA	01/jul/99	Palestine; Iceland; Liechtenstein; Norway; Switzerland
94	EFTA - Peru	Goods	FTA	01/jul/11	Peru; Iceland; Liechtenstein; Norway; Switzerland
95	EFTA - Philippines	Goods & Services	FTA & EIA	01/jun/18	Philippines; Iceland; Liechtenstein; Norway; Switzerland
96	EFTA - SACU	Goods	FTA	01-May-2008	Iceland; Liechtenstein; Norway; Switzerland; Botswana; Lesotho; Namibia; South Africa; Eswatini
97	EFTA - Serbia	Goods	FTA	01-Oct-2010	Serbia; Iceland; Liechtenstein; Norway; Switzerland
98	EFTA - Singapore	Goods & Services	FTA & EIA	01/jan/03	Singapore; Iceland; Liechtenstein; Norway; Switzerland
99	EFTA - Tunisia	Goods	FTA	01/jun/05	Tunisia; Iceland; Liechtenstein; Norway; Switzerland
100	EFTA - Türkiye	Goods & Services	FTA & EIA	01-Oct-2021	Türkiye; Iceland; Liechtenstein; Norway; Switzerland
101	EFTA - Ukraine	Goods & Services	FTA & EIA	01/jun/12	Ukraine; Iceland; Liechtenstein; Norway; Switzerland
102	Egypt - Türkiye	Goods	FTA	01/mar/07	Türkiye; Egypt
103	El Salvador - Cuba	Goods	PSA	01-Aug-2012	Cuba; El Salvador
104	El Salvador - Ecuador	Goods	PSA	16/nov/17	Ecuador; El Salvador
105	El Salvador - Honduras - Chinese Taipei	Goods & Services	FTA & EIA	01/mar/08	Chinese Taipei; El Salvador; Honduras
106	EU - Albania	Goods & Services	FTA & EIA	01-Dec-2006(G) / 01-Apr-2009(S)	Albania; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
107	EU - Algeria	Goods	FTA	01-Sep-2005	Algeria; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
108	EU - Andorra	Goods	CU	01/jul/91	Andorra; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
109	EU - Armenia	Services	EIA	01/jun/18	Armenia; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania;

					Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
110	EU - Bosnia and Herzegovina	Goods & Services	FTA & EIA	01-Jul-2008(G) / 01-Jun-2015(S)	Bosnia and Herzegovina; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
111	EU - Cameroon	Goods	FTA	04-Aug-2014	Cameroon; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
112	EU - Canada	Goods & Services	FTA & EIA	21-Sep-2017	Canada; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
113	EU - CARIFORUM States	Goods & Services	FTA & EIA	29-Dec-2008	Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
114	EU - Central America	Goods & Services	FTA & EIA	01-Aug-2013	Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden; Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama
115	EU - Chile	Goods & Services	FTA & EIA	01-Feb-2003(G) / 01-Mar-2005(S)	Chile; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
116	EU - Colombia, Ecuador and Peru	Goods & Services	FTA & EIA	01/mar/13	Colombia; Ecuador; Peru; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
117	EU - Côte d'Ivoire	Goods	FTA	03-Sep-2016	Côte d'Ivoire; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
118	EU - Eastern and Southern Africa States	Goods	FTA	14-May-2012	Comoros; Madagascar; Mauritius; Seychelles; Zimbabwe; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
119	EU - Egypt	Goods	FTA	01/jun/04	Egypt; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
120	EU - Faeroe Islands	Goods	FTA	01/jan/97	Faeroe Islands; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
121	EU - Georgia	Goods & Services	FTA & EIA	01-Sep-2014	Georgia; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
122	EU - Ghana	Goods	FTA	15-Dec-2016	Ghana; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
123	EU - Iceland	Goods	FTA	01-Apr-1973	Iceland; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
124	EU - Israel	Goods	FTA	01/jun/00	Israel; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
125	EU - Japan	Goods & Services	FTA & EIA	01-Feb-2019	Japan; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
126	EU - Jordan	Goods	FTA	01-May-2002	Jordan; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
127	EU - Korea, Republic of	Goods & Services	FTA & EIA	01/jul/11	Korea, Republic of; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
128	EU - Lebanon	Goods	FTA	01/mar/03	Lebanese Republic; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
129	EU - Mexico	Goods & Services	FTA & EIA	01-Jul-2000(G) / 01-Oct-2000(S)	Mexico; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden

130	EU - Moldova, Republic of	Goods & Services	FTA & EIA	01-Sep-2014	Moldova, Republic of; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
131	EU - Montenegro	Goods & Services	FTA & EIA	01-Jan-2008(G) / 01-May-2010(S)	Montenegro; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
132	EU - Morocco	Goods	FTA	01/mar/00	Morocco; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
133	EU - North Macedonia	Goods & Services	FTA & EIA	01-Jun-2001(G) / 01-Apr-2004(S)	North Macedonia; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
134	EU - Norway	Goods	FTA	01/jul/73	Norway; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
135	EU – Overseas Countries and Territories (OCT)	Goods	FTA	01/jan/71	Bermuda; British Indian Ocean Territory; Virgin Islands, British; Cayman Islands; Falkland Islands (Islas Malvinas); South Georgia and the South Sandwich Islands; French Polynesia; French Southern Territories; Greenland; Montserrat; Netherlands Antilles; Aruba, the Netherlands with respect to; New Caledonia; Pitcairn; British Overseas Territory of Saint Helena, Ascension and Tristan da Cunha; Anguilla; Saint Pierre and Miquelon; Turks and Caicos Islands; Wallis and Futuna Islands; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
136	EU - Pacific States	Goods	FTA	20-Dec-2009	Solomon Islands; Fiji; Papua New Guinea; Samoa; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
137	EU - Palestine	Goods	FTA	01/jul/97	Palestine; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
138	EU - SADC	Goods	FTA	10-Oct-2016	Botswana; Lesotho; Mozambique; Namibia; South Africa; Eswatini; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
139	EU - San Marino	Goods	CU	01-Apr-2002	San Marino; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
140	EU - Serbia	Goods & Services	FTA & EIA	01-Feb-2010(G) / 01-Sep-2013(S)	Serbia; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
141	EU - Singapore	Goods & Services	FTA & EIA	21/nov/19	Singapore; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
142	EU - South Africa	Goods	FTA	01/jan/00	South Africa; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
143	EU - Switzerland - Liechtenstein	Goods	FTA	01/jan/73	Liechtenstein; Switzerland; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
144	EU - Syria	Goods	FTA	01/jul/77	Syrian Arab Republic; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
145	EU - Tunisia	Goods	FTA	01/mar/98	Tunisia; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
146	EU - Türkiye	Goods	CU	01/jan/96	Türkiye; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
147	EU - Ukraine	Goods & Services	FTA & EIA	23-Apr-2014	Ukraine; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
148	EU - United Kingdom	Goods & Services	FTA & EIA	01/jan/21	United Kingdom; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
149	EU - Viet Nam	Goods & Services	FTA & EIA	01-Aug-2020	Viet Nam; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania;

					Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
150	EU Treaty	Goods & Services	CU & EIA	01/jan/58	Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
151	Eurasian Economic Union (EAEU)	Goods & Services	CU & EIA	01/jan/15	Armenia; Belarus; Kazakhstan; Kyrgyz Republic; Russian Federation
152	Eurasian Economic Union (EAEU) - Iran	Goods	FTA	27-Oct-2019	Iran; Armenia; Belarus; Kazakhstan; Kyrgyz Republic; Russian Federation
153	Eurasian Economic Union (EAEU) - Serbia	Goods	FTA	10/jul/21	Serbia; Armenia; Belarus; Kazakhstan; Kyrgyz Republic; Russian Federation
154	Eurasian Economic Union (EAEU) - Viet Nam	Goods & Services	FTA & EIA	05-Oct-2016	Viet Nam; Armenia; Belarus; Kazakhstan; Kyrgyz Republic; Russian Federation
155	European Economic Area (EEA)	Services	EIA	01/jan/94	Iceland; Liechtenstein; Norway; Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden
156	European Free Trade Association (EFTA)	Goods & Services	FTA & EIA	03-May-1960(G) / 01-Jun-2002(S)	Iceland; Liechtenstein; Norway; Switzerland
157	Faeroe Islands - Norway	Goods	FTA	01/jul/93	Faeroe Islands; Norway
158	Faeroe Islands - Switzerland	Goods	FTA	01/mar/95	Faeroe Islands; Switzerland
159	Georgia - Armenia	Goods	FTA	11/nov/98	Armenia; Georgia
160	Georgia - Azerbaijan	Goods	FTA	10/jul/96	Azerbaijan; Georgia
161	Georgia - Kazakhstan	Goods	FTA	16/jul/99	Georgia; Kazakhstan
162	Georgia - Russian Federation	Goods	FTA	10-May-1994	Georgia; Russian Federation
163	Georgia - Turkmenistan	Goods	FTA	01/jan/00	Georgia; Turkmenistan
164	Georgia - Ukraine	Goods	FTA	04/jun/96	Georgia; Ukraine
165	Global System of Trade Preferences among Developing Countries (GSTP)	Goods	PSA	19-Apr-1989	Algeria; Argentina; Bangladesh; Bolivia, Plurinational State of; Brazil; Myanmar; Cameroon; Sri Lanka; Chile; Colombia; Cuba; Benin; Ecuador; Ghana; Guinea; Guyana; India; Indonesia; Iran; Iraq; Korea, Democratic People's Republic of; Korea, Republic of; Libya; Malaysia; Mexico; Morocco; Mozambique; Nicaragua; Nigeria; Pakistan; Peru; Philippines; Singapore; Viet Nam; Zimbabwe; Sudan; Thailand; Trinidad and Tobago; Tunisia; Egypt; Tanzania; Venezuela, Bolivarian Republic of
166	GUAM	Goods & Services	FTA & EIA	10-Dec-2003	Azerbaijan; Georgia; Moldova, Republic of; Ukraine
167	Guatemala - Chinese Taipei	Goods & Services	FTA & EIA	01/jul/06	Chinese Taipei; Guatemala
168	Gulf Cooperation Council (GCC)	Goods	CU	01/jan/03	Bahrain, Kingdom of; Kuwait, the State of; Oman; Qatar; Saudi Arabia, Kingdom of; United Arab Emirates
169	Gulf Cooperation Council (GCC) - Singapore	Goods & Services	FTA & EIA	01-Sep-2013	Singapore; Bahrain, Kingdom of; Kuwait, the State of; Oman; Qatar; Saudi Arabia, Kingdom of; United Arab Emirates
170	Hong Kong, China - Australia	Goods & Services	FTA & EIA	17/jan/20	Australia; Hong Kong, China
171	Hong Kong, China - Chile	Goods & Services	FTA & EIA	09-Oct-2014	Chile; Hong Kong, China
172	Hong Kong, China - Georgia	Goods & Services	FTA & EIA	13-Feb-2019	Georgia; Hong Kong, China
173	Hong Kong, China - Macao, China	Goods & Services	FTA & EIA	27-Oct-2017	Hong Kong, China; Macao, China
174	Hong Kong, China - New Zealand	Goods & Services	FTA & EIA	01/jan/11	Hong Kong, China; New Zealand
175	Iceland - China	Goods & Services	FTA & EIA	01/jul/14	China; Iceland
176	Iceland - Faeroe Islands	Goods & Services	FTA & EIA	01/nov/06	Faeroe Islands; Iceland
177	India - Afghanistan	Goods	PSA	13-May-2003	Afghanistan; India
178	India - Bhutan	Goods	PSA	29/jul/06	Bhutan; India
179	India - Japan	Goods & Services	FTA & EIA	01-Aug-2011	India; Japan
180	India - Malaysia	Goods & Services	FTA & EIA	01/jul/11	India; Malaysia
181	India - Mauritius	Goods & Services	FTA & EIA	01-Apr-2021	India; Mauritius
182	India - Nepal	Goods	PSA	27-Oct-2009	India; Nepal
183	India - Singapore	Goods & Services	FTA & EIA	01-Aug-2005	India; Singapore
184	India - Sri Lanka	Goods	FTA	01/mar/00	Sri Lanka; India
185	India - Thailand	Goods	PSA	01-Sep-2004	India; Thailand
186	India - United Arab Emirates	Goods & Services	FTA & EIA	01-May-2022	India; United Arab Emirates
187	Indonesia - Australia	Goods & Services	FTA & EIA	05/jul/20	Australia; Indonesia
188	Indonesia - Pakistan	Goods	PSA	01-Sep-2013	Indonesia; Pakistan
189	Israel - Mexico	Goods	FTA	01/jul/00	Israel; Mexico
190	Japan - Australia	Goods & Services	FTA & EIA	15/jan/15	Australia; Japan
191	Japan - Indonesia	Goods & Services	FTA & EIA	01/jul/08	Indonesia; Japan

192	Japan - Malaysia	Goods & Services	FTA & EIA	13/jul/06	Japan; Malaysia
193	Japan - Mexico	Goods & Services	FTA & EIA	01-Apr-2005	Japan; Mexico
194	Japan - Mongolia	Goods & Services	FTA & EIA	07/jun/16	Japan; Mongolia
195	Japan - Peru	Goods & Services	FTA & EIA	01/mar/12	Japan; Peru
196	Japan - Philippines	Goods & Services	FTA & EIA	11-Dec-2008	Japan; Philippines
197	Japan - Singapore	Goods & Services	FTA & EIA	30/nov/02	Japan; Singapore
198	Japan - Switzerland	Goods & Services	FTA & EIA	01-Sep-2009	Japan; Switzerland
199	Japan - Thailand	Goods & Services	FTA & EIA	01/nov/07	Japan; Thailand
200	Japan - Viet Nam	Goods & Services	FTA & EIA	01-Oct-2009	Japan; Viet Nam
201	Jordan - Singapore	Goods & Services	FTA & EIA	22-Aug-2005	Jordan; Singapore
202	Korea, Republic of - Australia	Goods & Services	FTA & EIA	12-Dec-2014	Australia; Korea, Republic of
203	Korea, Republic of - Central America	Goods & Services	FTA & EIA	01-Oct-2019	Costa Rica; El Salvador; Honduras; Korea, Republic of; Nicaragua; Panama
204	Korea, Republic of - Chile	Goods & Services	FTA & EIA	01-Apr-2004	Chile; Korea, Republic of
205	Korea, Republic of - Colombia	Goods & Services	FTA & EIA	15/jul/16	Colombia; Korea, Republic of
206	Korea, Republic of - India	Goods & Services	FTA & EIA	01/jan/10	India; Korea, Republic of
207	Korea, Republic of - New Zealand	Goods & Services	FTA & EIA	20-Dec-2015	Korea, Republic of; New Zealand
208	Korea, Republic of - Singapore	Goods & Services	FTA & EIA	02/mar/06	Korea, Republic of; Singapore
209	Korea, Republic of - Türkiye	Goods & Services	FTA & EIA	01-May-2013(G) / 01-Aug-2018(S)	Korea, Republic of; Türkiye
210	Korea, Republic of - United States	Goods & Services	FTA & EIA	15/mar/12	Korea, Republic of; United States of America
211	Korea, Republic of - Viet Nam	Goods & Services	FTA & EIA	20-Dec-2015	Korea, Republic of; Viet Nam
212	Kyrgyz Republic - Armenia	Goods	FTA	27-Oct-1995	Armenia; Kyrgyz Republic
213	Kyrgyz Republic - Kazakhstan	Goods	FTA	11/nov/95	Kazakhstan; Kyrgyz Republic
214	Kyrgyz Republic - Moldova, Republic of	Goods	FTA	21/nov/96	Kyrgyz Republic; Moldova, Republic of
215	Kyrgyz Republic - Ukraine	Goods	FTA	19/jan/98	Kyrgyz Republic; Ukraine
216	Kyrgyz Republic - Uzbekistan	Goods	FTA	20/mar/98	Kyrgyz Republic; Uzbekistan
217	Lao People's Democratic Republic - Thailand	Goods	PSA	20/jun/91	Lao People's Democratic Republic; Thailand
218	Latin American Integration Association (LAI)	Goods	PSA	18/mar/81	Argentina; Bolivia, Plurinational State of; Brazil; Chile; Colombia; Cuba; Ecuador; Mexico; Paraguay; Peru; Uruguay; Venezuela, Bolivarian Republic of
219	Malaysia - Australia	Goods & Services	FTA & EIA	01/jan/13	Australia; Malaysia
220	Mauritius - Pakistan	Goods	PSA	30/nov/07	Mauritius; Pakistan
221	Melanesian Spearhead Group (MSG)	Goods	PSA	01/jan/94	Solomon Islands; Fiji; Vanuatu; Papua New Guinea
222	Mexico - Bolivia, Plurinational State of	Goods	PSA	07/jun/10	Bolivia, Plurinational State of; Mexico
223	Mexico - Central America	Goods & Services	FTA & EIA	01-Sep-2012	Costa Rica; El Salvador; Guatemala; Honduras; Mexico; Nicaragua
224	Mexico - Cuba	Goods	PSA	28-Feb-2001	Cuba; Mexico
225	Mexico - Panama	Goods & Services	FTA & EIA	01/jul/15	Mexico; Panama
226	Mexico - Paraguay	Goods	PSA	01/jan/84	Mexico; Paraguay
227	Mexico - Uruguay	Goods & Services	FTA & EIA	15/jul/04	Mexico; Uruguay
228	Morocco - United Arab Emirates	Goods	FTA	09/jul/03	Morocco; United Arab Emirates
229	Namibia - Zimbabwe	Goods	FTA	30-Apr-1993	Namibia; Zimbabwe
230	New Zealand - Chinese Taipei	Goods & Services	FTA & EIA	01-Dec-2013	Chinese Taipei; New Zealand
231	New Zealand - Malaysia	Goods & Services	FTA & EIA	01-Aug-2010	Malaysia; New Zealand
232	New Zealand - Singapore	Goods & Services	FTA & EIA	01/jan/01	New Zealand; Singapore
233	Pacific Agreement on Closer Economic	Goods & Services	FTA & EIA	13-Dec-2020	Australia; Solomon Islands; Cook Islands; Kiribati; Nauru; Vanuatu; New Zealand; Niue; Tonga; Tuvalu; Samoa

	Relations Plus (PACER Plus)				
234	Pacific Alliance	Goods & Services	FTA & EIA	01-May-2016	Chile; Colombia; Mexico; Peru
235	Pacific Island Countries Trade Agreement (PICTA)	Goods	FTA	13-Apr-2003	Solomon Islands; Cook Islands; Fiji; Kiribati; Nauru; Vanuatu; Niue; Micronesia, Federated States of; Papua New Guinea; Tonga; Tuvalu; Samoa
236	Pakistan - China	Goods & Services	FTA & EIA	01-Jul-2007(G) / 10-Oct-2009(S)	China; Pakistan
237	Pakistan - Malaysia	Goods & Services	FTA & EIA	01/jan/08	Malaysia; Pakistan
238	Pakistan - Sri Lanka	Goods	FTA	12/jun/05	Sri Lanka; Pakistan
239	Panama - Chile	Goods & Services	FTA & EIA	07/mar/08	Chile; Panama
240	Panama - Chinese Taipei	Goods & Services	FTA & EIA	01/jan/04	Chinese Taipei; Panama
241	Panama - Costa Rica (Panama - Central America)	Goods & Services	FTA & EIA	23/nov/08	Costa Rica; Panama
242	Panama - Dominican Republic	Goods	PSA	08/jun/87	Dominican Republic; Panama
243	Panama - El Salvador (Panama - Central America)	Goods & Services	FTA & EIA	11-Apr-2003	El Salvador; Panama
244	Panama - Guatemala (Panama - Central America)	Goods & Services	FTA & EIA	20/jun/09	Guatemala; Panama
245	Panama - Honduras (Panama - Central America)	Goods & Services	FTA & EIA	09/jan/09	Honduras; Panama
246	Panama - Nicaragua (Panama - Central America)	Goods & Services	FTA & EIA	21/nov/09	Nicaragua; Panama
247	Panama - Peru	Goods & Services	FTA & EIA	01-May-2012	Panama; Peru
248	Panama - Singapore	Goods & Services	FTA & EIA	24/jul/06	Panama; Singapore
249	Pan-Arab Free Trade Area (PAFTA)	Goods	FTA	01/jan/98	Bahrain, Kingdom of; Iraq; Jordan; Kuwait, the State of; Lebanese Republic; Libya; Morocco; Oman; Qatar; Saudi Arabia, Kingdom of; Sudan; Syrian Arab Republic; United Arab Emirates; Tunisia; Egypt; Yemen
250	Peru - Australia	Goods & Services	FTA & EIA	11-Feb-2020	Australia; Peru
251	Peru - Chile	Goods & Services	FTA & EIA	01/mar/09	Chile; Peru
252	Peru - China	Goods & Services	FTA & EIA	01/mar/10	China; Peru
253	Peru - Honduras	Goods & Services	FTA & EIA	01/jan/17	Honduras; Peru
254	Peru - Korea, Republic of	Goods & Services	FTA & EIA	01-Aug-2011	Korea, Republic of; Peru
255	Peru - Mexico	Goods & Services	FTA & EIA	01-Feb-2012	Mexico; Peru
256	Peru - Singapore	Goods & Services	FTA & EIA	01-Aug-2009	Peru; Singapore
257	Protocol on Trade Negotiations (PTN)	Goods	PSA	11-Feb-1973	Bangladesh; Brazil; Chile; Israel; Korea, Republic of; Mexico; Pakistan; Paraguay; Peru; Philippines; Tunisia; Türkiye; Egypt; Uruguay; Serbia
258	Russian Federation - Azerbaijan	Goods	FTA	17-Feb-1993	Azerbaijan; Russian Federation
259	Russian Federation - Belarus - Kazakhstan	Goods	CU	03-Dec-1997	Belarus; Kazakhstan; Russian Federation
260	Russian Federation - Serbia	Goods	FTA	03/jun/06	Russian Federation; Serbia
261	Russian Federation - Turkmenistan	Goods	FTA	06-Apr-1993	Russian Federation; Turkmenistan
262	Russian Federation - Uzbekistan	Goods	FTA	25/mar/93	Russian Federation; Uzbekistan
263	Singapore - Australia	Goods & Services	FTA & EIA	28/jul/03	Australia; Singapore
264	Singapore - Chinese Taipei	Goods & Services	FTA & EIA	19-Apr-2014	Chinese Taipei; Singapore
265	South Asian Free Trade Agreement (SAFTA)	Goods	FTA	01/jan/06	Afghanistan; Bangladesh; Bhutan; Sri Lanka; India; Maldives; Nepal; Pakistan
266	South Asian Preferential Trade Arrangement (SAPTA)	Goods	PSA	07-Dec-1995	Bangladesh; Bhutan; Sri Lanka; India; Maldives; Nepal; Pakistan
267	South Pacific Regional Trade and Economic Cooperation Agreement (SPARTECA)	Goods	PSA	01/jan/81	Australia; Solomon Islands; Cook Islands; Fiji; Kiribati; Nauru; Vanuatu; New Zealand; Niue; Micronesia, Federated States of; Marshall Islands; Papua New Guinea; Tonga; Tuvalu; Samoa
268	Southern African Customs Union (SACU)	Goods	CU	15/jul/04	Botswana; Lesotho; Namibia; South Africa; Eswatini

269	Southern African Development Community (SADC)	Goods & Services	FTA & EIA	01-Sep-2000(G) / 13-Jan-2022(S)	Angola; Botswana; Comoros; Democratic Republic of the Congo; Lesotho; Madagascar; Malawi; Mauritius; Mozambique; Namibia; Seychelles; South Africa; Zimbabwe; Eswatini; Tanzania; Zambia
270	Southern Common Market (MERCOSUR)	Goods & Services	CU & EIA	29-Nov-1991(G) / 07-Dec-2005(S)	Argentina; Brazil; Paraguay; Uruguay
271	Southern Common Market (MERCOSUR) - Egypt	Goods	FTA	01-Sep-2017	Egypt; Argentina; Brazil; Paraguay; Uruguay
272	Southern Common Market (MERCOSUR) - India	Goods	PSA	01/jun/09	India; Argentina; Brazil; Paraguay; Uruguay
273	Southern Common Market (MERCOSUR) - Israel	Goods	FTA	23-Dec-2009	Israel; Argentina; Brazil; Paraguay; Uruguay
274	Southern Common Market (MERCOSUR) - Southern African Customs Union (SACU)	Goods	PSA	01-Apr-2016	Argentina; Brazil; Paraguay; Uruguay; Botswana; Lesotho; Namibia; South Africa; Eswatini
275	Switzerland - China	Goods & Services	FTA & EIA	01/jul/14	China; Switzerland
276	Thailand - Australia	Goods & Services	FTA & EIA	01/jan/05	Australia; Thailand
277	Thailand - New Zealand	Goods & Services	FTA & EIA	01/jul/05	New Zealand; Thailand
278	Trans-Pacific Strategic Economic Partnership	Goods & Services	FTA & EIA	28-May-2006	Brunei Darussalam; Chile; New Zealand; Singapore
279	Treaty on a Free Trade Area between members of the Commonwealth of Independent States (CIS)	Goods	FTA	20-Sep-2012	Armenia; Belarus; Kazakhstan; Kyrgyz Republic; Moldova, Republic of; Russian Federation; Tajikistan; Ukraine
280	Türkiye - Albania	Goods	FTA	01-May-2008	Albania; Türkiye
281	Türkiye - Bosnia and Herzegovina	Goods	FTA	01/jul/03	Bosnia and Herzegovina; Türkiye
282	Türkiye - Chile	Goods	FTA	01/mar/11	Chile; Türkiye
283	Türkiye - Faeroe Islands	Goods	FTA	01-Oct-2017	Faeroe Islands; Türkiye
284	Türkiye - Georgia	Goods	FTA	01/nov/08	Georgia; Türkiye
285	Türkiye - Israel	Goods	FTA	01-May-1997	Israel; Türkiye
286	Türkiye - Kosovo	Goods	FTA	01-Sep-2019	Türkiye; UNMIK/Kosovo
287	Türkiye - Malaysia	Goods	FTA	01-Aug-2015	Malaysia; Türkiye
288	Türkiye - Mauritius	Goods	FTA	01/jun/13	Mauritius; Türkiye
289	Türkiye - Moldova, Republic of	Goods	FTA	01/nov/16	Moldova, Republic of; Türkiye
290	Türkiye - Montenegro	Goods	FTA	01/mar/10	Türkiye; Montenegro
291	Türkiye - Morocco	Goods	FTA	01/jan/06	Morocco; Türkiye
292	Türkiye - North Macedonia	Goods	FTA	01-Sep-2000	Türkiye; North Macedonia
293	Türkiye - Palestine	Goods	FTA	01/jun/05	Palestine; Türkiye
294	Türkiye - Serbia	Goods & Services	FTA & EIA	01-Sep-2010(G) / 01-Jun-2019(S)	Türkiye; Serbia
295	Türkiye - Singapore	Goods & Services	FTA & EIA	01-Oct-2017	Singapore; Türkiye
296	Türkiye - Syria	Goods	FTA	01/jan/07	Syrian Arab Republic; Türkiye
297	Türkiye - Tunisia	Goods	FTA	01/jul/05	Tunisia; Türkiye
298	Ukraine - Azerbaijan	Goods	FTA	02-Sep-1996	Azerbaijan; Ukraine
299	Ukraine - Belarus	Goods	FTA	11/nov/06	Belarus; Ukraine
300	Ukraine - Israel	Goods	FTA	01/jan/21	Israel; Ukraine
301	Ukraine - Kazakhstan	Goods	FTA	19-Oct-1998	Kazakhstan; Ukraine
302	Ukraine - Moldova, Republic of	Goods	FTA	19-May-2005	Moldova, Republic of; Ukraine
303	Ukraine - Montenegro	Goods & Services	FTA & EIA	01/jan/13	Ukraine; Montenegro
304	Ukraine - North Macedonia	Goods	FTA	05/jul/01	Ukraine; North Macedonia
305	Ukraine - Tajikistan	Goods	FTA	11/jul/02	Tajikistan; Ukraine
306	Ukraine - Uzbekistan	Goods	FTA	01/jan/96	Ukraine; Uzbekistan
307	Ukraine - Turkmenistan	Goods	FTA	04/nov/95	Turkmenistan; Ukraine
308	United Kingdom - Albania	Goods & Services	FTA & EIA	03-May-2021	Albania; United Kingdom
309	United Kingdom - Cameroon	Goods	FTA	01/jan/21	Cameroon; United Kingdom
310	United Kingdom - Canada	Goods & Services	FTA & EIA	01-Jan-2021(G) / 01-Apr-2021(S)	Canada; United Kingdom
311	United Kingdom - CARIFORUM States	Goods & Services	FTA & EIA	01/jan/21	Antigua and Barbuda; Bahamas; Barbados; Belize; Dominica; Dominican Republic; Grenada; Guyana; Haiti; Jamaica; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago; United Kingdom
312	United Kingdom - Central America	Goods & Services	FTA & EIA	01/jan/21	Costa Rica; El Salvador; Guatemala; Honduras; Nicaragua; Panama; United Kingdom
313	United Kingdom - Chile	Goods & Services	FTA & EIA	01/jan/21	Chile; United Kingdom

314	United Kingdom - Colombia, Ecuador and Peru	Goods & Services	FTA & EIA	01/jan/21	Colombia; Ecuador; Peru; United Kingdom
315	United Kingdom - Côte d'Ivoire	Goods	FTA	01/jan/21	Côte d'Ivoire; United Kingdom
316	United Kingdom - Eastern and Southern Africa States	Goods	FTA	01/jan/21	Mauritius; Seychelles; Zimbabwe; United Kingdom
317	United Kingdom - Egypt	Goods	FTA	01/jan/21	Egypt; United Kingdom
318	United Kingdom - Faeroe Islands	Goods	FTA	01/jan/21	Faeroe Islands; United Kingdom
319	United Kingdom - Georgia	Goods & Services	FTA & EIA	01/jan/21	Georgia; United Kingdom
320	United Kingdom - Ghana	Goods	FTA	05/mar/21	Ghana; United Kingdom
321	United Kingdom - Iceland, Liechtenstein and Norway	Goods & Services	FTA & EIA	01-Dec-2021	Iceland; Liechtenstein; Norway; United Kingdom
322	United Kingdom - Israel	Goods	FTA	01/jan/21	Israel; United Kingdom
323	United Kingdom - Japan	Goods & Services	FTA & EIA	01/jan/21	Japan; United Kingdom
324	United Kingdom - Jordan	Goods	FTA	01-May-2021	Jordan; United Kingdom
325	United Kingdom - Kenya	Goods	FTA	01/jan/21	Kenya; United Kingdom
326	United Kingdom - Korea, Republic of	Goods & Services	FTA & EIA	01/jan/21	Korea, Republic of; United Kingdom
327	United Kingdom - Kosovo	Goods	FTA	01/jan/21	United Kingdom; UNMIK/Kosovo
328	United Kingdom - Lebanon	Goods	FTA	01/jan/21	Lebanese Republic; United Kingdom
329	United Kingdom - Mexico	Goods & Services	FTA & EIA	01/jun/21	Mexico; United Kingdom
330	United Kingdom - Moldova, Republic of	Goods & Services	FTA & EIA	01/jan/21	Moldova, Republic of; United Kingdom
331	United Kingdom - Morocco	Goods	FTA	01/jan/21	Morocco; United Kingdom
332	United Kingdom - North Macedonia	Goods & Services	FTA & EIA	01/jan/21	North Macedonia; United Kingdom
333	United Kingdom - Pacific States	Goods	FTA	01/jan/21	Solomon Islands; Fiji; Papua New Guinea; United Kingdom; Samoa
334	United Kingdom - Palestine	Goods	FTA	01/jan/21	Palestine; United Kingdom
335	United Kingdom - SACU and Mozambique	Goods	FTA	01/jan/21	Mozambique; United Kingdom; Botswana; Lesotho; Namibia; South Africa; Eswatini
336	United Kingdom - Serbia	Goods & Services	FTA & EIA	20-May-2021	United Kingdom; Serbia
337	United Kingdom - Singapore	Goods & Services	FTA & EIA	01/jan/21	Singapore; United Kingdom
338	United Kingdom - Switzerland - Liechtenstein	Goods	FTA	01/jan/21	Liechtenstein; Switzerland; United Kingdom
339	United Kingdom - Tunisia	Goods	FTA	01/jan/21	Tunisia; United Kingdom
340	United Kingdom - Türkiye	Goods	FTA	01/jan/21	Türkiye; United Kingdom
341	United Kingdom - Ukraine	Goods & Services	FTA & EIA	01/jan/21	Ukraine; United Kingdom
342	United Kingdom - Viet Nam	Goods & Services	FTA & EIA	01/jan/21	Viet Nam; United Kingdom
343	United States - Australia	Goods & Services	FTA & EIA	01/jan/05	Australia; United States of America
344	United States - Bahrain	Goods & Services	FTA & EIA	01-Aug-2006	Bahrain, Kingdom of; United States of America
345	United States - Chile	Goods & Services	FTA & EIA	01/jan/04	Chile; United States of America
346	United States - Colombia	Goods & Services	FTA & EIA	15-May-2012	Colombia; United States of America
347	United States - Israel	Goods	FTA	19-Aug-1985	Israel; United States of America
348	United States - Jordan	Goods & Services	FTA & EIA	17-Dec-2001	Jordan; United States of America
349	United States - Morocco	Goods & Services	FTA & EIA	01/jan/06	Morocco; United States of America
350	United States - Oman	Goods & Services	FTA & EIA	01/jan/09	Oman; United States of America
351	United States - Panama	Goods & Services	FTA & EIA	31-Oct-2012	Panama; United States of America
352	United States - Peru	Goods & Services	FTA & EIA	01-Feb-2009	Peru; United States of America
353	United States - Singapore	Goods & Services	FTA & EIA	01/jan/04	Singapore; United States of America

354	United States-Mexico-Canada Agreement (USMCA/CUSMA/T-MEC)	Goods & Services	FTA & EIA	01/jul/20	Canada; Mexico; United States of America
355	West African Economic and Monetary Union (WAEMU)	Goods	CU	01/jan/00	Benin; Côte d'Ivoire; Mali; Niger; Senegal; Togo; Burkina Faso