Background Paper: Digital Society

Purpose: Information
Submitted by: Chile
Background Paper

Introduction

We all know that the history of humanity has been a constant search to discover new horizons, innovate, undertake, try to look at what is beyond the horizon, to be able to progress and advance, since the agricultural revolution, which ended with nomadism, hunting and fishing, and transformed men into farmers, which meant the existence of cities, humanity has been experiencing one revolution after another.

But this phenomenon has accelerated in recent times, and today we are facing the fourth technological revolution, which is the one that goes hand in hand with the Knowledge and Information Society.

The first technological revolution was the steam engine, which freed us from human strength, or from animals or the wind, and allowed us to create an artificial force, based on steam, which explains and is the cradle of industrialization. The second was the discovery of electricity, which gave us a powerful, flexible energy source that changed our way of life again. And the third was the use of digital technologies that changed the world, and it is the revolution that we have known in the last 25 years.

To think that 25 years ago there was no Internet, there was no telecommunications as we know them today, there was no personal computer, no smart phone, there were not many of the things that are now indispensable in our lives.

The impact on the Economy

It was argued more than 70 years ago that innovation and growth are, in essence, the same thing.¹ APEC — as a forum for facilitating economic growth, technical cooperation and the liberalization of trade and investment in the Asia-Pacific region — must harness innovative measures to achieve its ends.

The Internet is a network that interconnects different parts of the world across traditional borders — it changes conventional notions of location, distance and jurisdiction, which requires close international cooperation and participation of a broad range of stakeholders. We need to equip our societies with the right tools and skills and ensure that they can participate to their full potential in the Internet and Digital Economy.

We face ongoing challenges to ensure that our regulatory environment and infrastructure enables sustainable and inclusive growth. We should ensure that e-commerce and digital trade rules address the challenges of our region. We need to seize the opportunities for APEC to address the barriers that hinder the stimulation of trade and investment, in the same way as tariff reductions in the Asia-Pacific region.

The digital transformation of the economy has the potential to stimulate innovation, generate efficiencies and improve the supply of services. APEC economies must work together to preserve an Internet that serves as a platform for multiple uses, close digital gaps through improving access and by promoting digital skills and the innovative potential of the digital society in the region. In 2019 Chile will prioritize increasing opportunities in the economy for women, MSMEs and indigenous peoples. Globally, the digital gender divide remains a

concern, particularly for careers in STEM (science, technology, engineering, and mathematics).

Building on the APEC work underway and considering that technology is constantly evolving, and with a practical vision, Chile proposes to tackle the issues that the APEC region faces with the aim of increasing the participation of people in the global economy by taking advantage of the characteristics of the digital society.

**Relevance for APEC**

In 2014, the APEC Leaders endorsed the ‘APEC Cooperation Initiative to Promote the Internet Economy’. This document formally recognized the cross-cutting role of the Internet economy in the development of APEC Economies and the possibility of increasing economic participation for the region’s population. In 2015, APEC established an ‘Ad Hoc Steering Group on the Internet Economy’ to guide the debate on the opportunities arising from the Internet Economy.

The ‘APEC Internet and Digital Economy Roadmap’ was endorsed by Senior Officials in Viet Nam in 2017 and was welcomed by Leaders. This framework provides guidance on key areas and actions to facilitate technological and policy exchanges between member economies and to promote innovative, inclusive and sustainable growth, having among its objectives to close the digital divide in the APEC region. The Roadmap’s eleven Key Focus Areas provide broad scope on several issues.

Papua New Guinea, as the host of APEC 2018, worked towards formalizing the governance for APEC’s work in this area. Chile as host in 2019 will endeavour to guide the initial work flow and the direction of work related to the Internet and Digital Economy in the following years. During the 2018 MRT, ABAC stressed the need to move forward on the substance to ensure that APEC maintains its relevance.

APEC has a long-term vision for a Free Trade Area of the Asia Pacific. It is essential that the outlook of this work incorporates the current and anticipates the future Internet and Digital Economy. ICTs can enable many forms of trade and investment facilitation and business streamlining, which will foster greater regional economic integration. We should continue to work in support of regional economic integration by promoting the connectivity agenda, structural reform and technical interoperability.

Continued exchanges and cooperation on ICT-related policy and regulation are critical for furthering economic integration and development and nurturing a healthy Internet and digital Economy in the region. This is particularly important for trade in services, which stands to benefit enormously. We need a regulatory approach that provides appropriate prudential oversight and legitimate consumer and protections, while enabling the flow of trade-related data in the context of an increasingly digitalized world.

**Key Issues**

In the Fourth Industrial Revolution we are living in an era of great technological change. Digital innovations are remaking our economy, industries, and society just as steam, electricity, and internal combustion did before them. Like their predecessors, computers and their kin are engines of great prosperity. Progress in our lives is being driven by hardware, software, and networks that impact our lives in countless ways and creating immense value. To take just a few examples, advances in artificial intelligence are helping doctors diagnose diseases; new sensors are making it possible to drive cars in a safer way; digitization is delivering knowledge and entertainment more widely than ever; and mobile networks are
interconnecting the planet’s population for the first time ever. The digital revolution is the best economic news on the planet.

To give direction to APEC’s work on these issues and to respond to the demand of the private sector and civil society, Chile considers it necessary to prepare and implement a workplan that gives priority to certain key measures identified by previous APEC outcomes, such as the ‘APEC Internet and Digital Economy Roadmap’; the ‘APEC Services Competitiveness Roadmap’; and the ‘APEC Services Competitiveness Roadmap Implementation Plan 2016 – 2025’.

In APEC there are many relevant initiatives already underway. We want to harness these efforts and build on them. This includes, on one side, working on infrastructure and regulatory issues linked to the Internet and Digital Economy, and on the other side, devising better ways for measuring the outcomes of the work that APEC develops on these issues.

1. Implement the Internet and Digital Economy Roadmap

The ‘APEC Internet and Digital Economy Roadmap’ is a framework that provides guidance on 11 key areas and actions to reduce barriers to the growth of the digital economy, facilitate technological and policy exchanges among member economies and to promote innovative, inclusive and sustainable growth, as well as to bridge digital divide in the APEC region.

As a guide for the current and future digital economy the Roadmap is of paramount importance. However, its outlines need to be concretized and implemented in practice to effectively equip APEC economies for the challenges of the digital future. The Roadmap is a “living document”, and as such, there is a responsibility on those seeking to implement it to report on new or developing issues as they arise so that they can be added to APEC’s work agenda. We propose the following initial implementing steps.

1.1 Cross-fora monitoring and reporting process

The ‘APEC Internet and Digital Economy Roadmap’ provides guidance on 11 key areas and actions to promote innovative, inclusive and sustainable growth in the APEC region. In developing these initiatives, Committees, fora and, sub-fora should pay close attention to the Roadmap when dealing with issues related to the 11 key areas identified by the Roadmap.

As agreed by the SOM, the DESG will be the inheritor of the deliverables of the Ad Hoc Steering Group on the Internet Economy (AHSIEG). In this context, the DESG will advise the SOM on a comprehensive and regular basis on implementation of the Roadmap. In moving forward throughout its work, all organs of APEC shall monitor and report to their Committees of oversight. The DESG Chair will act as coordinator of those reports to present them to Senior Officials on issues relating to the implementation of the Roadmap. This would create an objective process, so the SOM can have an overview of the activities and the implementation of the Roadmap and suggest the work that should be developed by APEC bodies.

➢ Activities and Outcomes

- Develop a monitoring and reporting mechanism on the implementation of the Roadmap so SOM can guide further actions.

1.2 Improve regional connectivity through telecommunications

Telecommunications services have become a key staple of modern life. As consumers, we expect fast, ubiquitous access to networks that allow us to get on with our digitally-

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connected lives. These are genuinely revolutionary times, for the user and for the telecommunications industry which enables digital connectivity.

The TELWG was established in 1990 with the goal to improve the quality of and access to Information and Communications Technologies (ICT) infrastructure in the region, through effective cooperation and information sharing about technical and policy developments. It aims to enhance social and economic development through the effective use of ICTs as well as to promote a secure and trusted ICT environment to facilitate free and secure trade, investment and sustainable development.

The 2010 ‘TELWG Okinawa Declaration’ set an ambitious goal to ensure access to next generation high-speed broadband by 2020 with the goal to further enhance the growth of knowledge-based economies in the APEC region. The TELWG has a ‘Strategic Action Plan (SAP) 2016-2020’ that was revised and endorsed at TEL58.

In this context, Chile proposes that the TELWG focuses its work in addressing the challenges that a dynamic and always changing ICT environment poses to the telecommunications and broader ICT sectors. This includes close cooperation on developing and supporting ICT innovation that promotes regional economic integration by enhancing the Digital and the Internet Economy.

Telecommunications are all about connecting people and serving as a key enabler of economic and social development. Universal and global access to connectivity is a necessary condition for the development of the digital economy. We acknowledge the role of digital technologies in developing economies as powerful enablers of inclusive growth and sustainable development. We acknowledge the relevance of promoting regulations that take into account accessibility, affordability, quality, reliability and availability of connectivity and digital services, and removing barriers to inclusive digital economic growth.

Regional digital infrastructure connectivity requires close collaboration between public, private, and community stakeholders at local, domestic, and regional levels. Recognizing global and universal connectivity as a shared pursuit, Chile is committed to devise joint efforts that prioritize connecting individuals, households, businesses, industries, and the public sector, taking into particular consideration remote areas and vulnerable groups.

The emergence of a digitalized world calls to reinforce the efforts to bridge the digital access divide. Still more than 50 per cent of the global population is offline. In the APEC region things are looking better with an average of 69 per cent of individuals using the Internet of APEC economies.

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<th>Percentage of Individuals using the Internet in the APEC region</th>
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Connectivity is a prerequisite for digitalization. Building digital infrastructure, for its part, is a prerequisite for connectivity. Therefore, we need a strong and resilient digital infrastructure that serves as an enabling platform. This includes developing and using interoperable standards, logistics and an open architecture to develop an inclusive and competitive environment that supports the Internet and Digital economy in the APEC region.

We should realize the potential of the Internet and Digital economy by having in place better telecommunication services, with special emphasis on extending coverage to underserved communities and individuals. Regarding the telecommunication sector, Chile has benefitted from its competitive regulations and its advanced infrastructure which is why it can give valuable input for the discussion.

Moreover, digital connectivity infrastructure requires close collaboration between public, private, and community stakeholders. Further action is needed to improve the design, implementation and evaluation of public policies for accelerating the deployment of digital infrastructure and extending coverage to underserved communities and individuals.

➢ Activities and Outcomes

- Identify domestic regulatory frameworks that stimulate the adoption and deployment of high quality technologies and infrastructure with stakeholders. The purpose is to develop and to present a benchmark of regulatory frameworks that foster technology convergence through cross-fora cooperation and with stakeholders.

- Present a report on domestic strategies to deploy 5G networks among APEC economies to maximize social benefits, economic growth and to bridge the digital divide. These strategies should include spectrum availability associated to the services development (especially regarding spectrum intensive services).

- Benchmark successful experiences regarding use of telecommunications in case of emergencies and natural disasters.

- Identify current state of submarine cables in the APEC region to cooperate to foster new initiatives and projects.

1.3 Develop efficient, coherent and comprehensive regulatory frameworks for digital related policies

Apart from a solid infrastructure, the digital future requires compatible digital policies which foster our digital societies. Consequently, a common holistic, coherent and cooperative regulatory framework for those policies shall promote interoperable regulatory approaches. Globally accepted standards shall be agreed that reflect the cross-border, and interoperable architecture of the Internet. In this context, the question of facilitating the flow of information
and data for the development of the Internet and Digital Economy, while acknowledging applicable domestic laws and regulations is key. Such flows can enhance trade by easing the implementation of trade facilitation measures. Data flows are not only a means of production, but also an ingredient of global value chains and an asset that can be traded.

Essential for this work is close cross-fora collaboration among the EC, CTI, ECSG, TELWG and other APEC bodies to ensure cooperation in the implementation of the Roadmap and to avoid duplication of efforts, including issues related to cloud computing, IoT ecosystem, Big Data, Data Protection and Privacy, and OTT.

➢ Activities and Outcomes


- Develop a toolkit of competition policies and regulatory practices that fosters the Internet and Digital Economy in the APEC region.

- Host a seminar on best practices for consumer protection in the Internet and Digital Economy in cooperation with the Republic of Korea.

1.4 Develop guiding principles for e-commerce and digital trade between APEC economies

A particularly noteworthy aspect of the digitalization process of our society, catalyzed by the Internet, is that it has reduced the entry barriers to international trade, granting opportunities to sectors that have traditionally been marginalized from the international economy, such as natural persons, micro and small businesses. Digitalization has also allowed the costs of storage, reproduction and distribution of these digital products, once they have been created, to be so low, that it is only a slight exaggeration to speak of marginal costs close to zero. Nowadays, anyone with a good business idea and with access to the Internet can participate in international digital commerce.

In this context, globally accepted principles are not only required in the internal sphere of each economy but also for cross-border commerce. The Internet is an End-to-End packet switching network not bound by frontiers that serves as a catalyzer for creativity and innovation. The Internet is a platform technology that serves for multiple uses, present and future and we should strive to keep it that way. Close regional cooperation between APEC economies is of utmost importance since the digitalization of commerce can contribute to more market openness and democratize participation.

With a view to fostering the realization of regional integration and of value chains in the APEC region, a digital work plan should take stock of e-commerce and digital trade practices in FTAs/RTAs to assess convergences, examine the current scenarios, new technologies and trends. The objective is to raise standards to foster e-commerce and digital trade.

➢ Activities and Outcomes

- Share experiences, capacity building activities, and cooperation with other international fora that can enhance economies’ understanding of e-commerce and digital trade in the region and its potential to support the negotiation of high standard FTAs/RTAs.

- Develop recommendations on trade-related aspects for facilitating the Internet and Digital Economy in the APEC region including common agreed principles to give
policy-makers a better overview and consideration of the factors that can help economies to maximize benefits from e-commerce and digital trade.

1.5 **Work on an APEC education, training and knowledge strategy that reflects the opportunities of new technologies**

A successful digital society is based on three main pillars: economy, work and education. Rapid economic transformation in the digital era requires the development of high-quality lifelong-learning systems and joint efforts across sectors to achieve fair and sustainable economic development. To create opportunities for an inclusive future of work and entrepreneurship, the development of skills required by the digital economy must be addressed by APEC economies. It is important that APEC economies invest in people by discussing novel ways of teaching, learning and training opportunities.

- **Activities and Outcomes**

  - Develop recommendations based on good practices in competency-based training that support labor market adaptability, employment and life-long learning and identify specific exchange models that work at the regional level in order to improve the digital skills levels for the workforce.

2. **Measurement of the Internet and Digital Economy in APEC**

To effectively realize APEC goals, it is important to evaluate the current and future state of the Internet and Digital Economy. There is scant information on the ways the Internet and Digital Economy is measured, but most measurement rely heavily on proxies. Comparable and sound data on the Internet and Digital Economy are vital to overcome the significant gap in data that is needed to guide policy-making. APEC can be a forum for discussing methodologies that enable us to understand the current shortcomings and to focus the efforts in the sectors where they are most needed.

APEC economies should develop common understandings on improved baseline measurements for the Internet and Digital Economy with reference to the ongoing work by relevant international bodies and stakeholders.

- **Activities and Outcomes**

  - Host a 2-day workshop to help identify the best existing methodologies and ways to measure the Internet and Digital Economy by providing comparable data. Experts on metrics will provide valuable input. The results of the Workshop shall be included in a comprehensive report that provides guidance to APEC Economies on the best way to measure the dynamism of the Internet and digital Economy.