

## 1 Introduction and Vision

The APEC Telecommunications and Information Working Group (TELWG) was established in 1990 and has since met biannually to advance the development of information and communication technology (ICTs) infrastructure and services as well as to promote cooperation, information sharing and the development of effective ICT policies and regulations within the Asia-Pacific region. It also aims to enhance social and economic development through effective use of ICTs and promote a secure and trusted ICT environment.

The TELWG envisions an APEC region in which all people have affordable access to the internet, and where ICTs are used to drive economic growth for the benefit of people. In 2000, Leaders set the Brunei Darussalam goal of universal Internet access by 2010; the 2008 TEL Bangkok Declaration reaffirmed our commitment to universal internet access and affirmed our commitment toward achieving universal access to broadband by 2015; the 2010 TEL Okinawa Declaration set the ambitious goal of access to next generation high speed broadband by 2020, to further enhance the growth of knowledge-based economies in the APEC region; in 2014, Leaders noted the importance of promoting the Internet Economy; and in 2017, Leaders welcomed the adoption of the APEC Internet and Digital Economy Roadmap.

The TELWG will continue to support the broader APEC goals to create greater prosperity for the people of the region by promoting balanced, inclusive, sustainable, innovative and secure growth and by accelerating regional economic integration.

The TELWG is a working group-level forum under the Steering Committee on Economic and Technical Cooperation (SCE). The TELWG is guided primarily by its Strategic Action Plans (SAP), which set out the high-level priorities and implementation activities for the next five years.

Between 2010 to 2015, the TELWG focused on enhancing telecommunications/ ICT connectivity as a necessary precursor to the development of a robust regional digital economy. With a range of connectivity initiatives underway across member economies, the focus of the TELWG between 2016 to 2020 was to help Economies capture the substantial economic and social benefits associated with the use of ICTs, including the exponential and unprecedented growth of the digital economy.

This SAP 2021-2025 seeks to prioritize the TELWG undertakings in response to the rapid advancement in telecommunications/ ICTs, including as they relate to emerging digital technologies in areas such as artificial intelligence, 5G, big data, and the Internet of Things (IoT). The COVID-19 pandemic has further underscored the need to provide internet access and connectivity to all people living in the APEC region, and to build their capacity to benefit from the Internet and digital economy. The SAP 2021-2025 guides the work of the TELWG in its endeavours to advance the development of the telecommunications/ICT infrastructure and services in the region that is home to more than 2.8 billion people, makes up for over half of both global GDP and world trade. In addressing the Priority Areas, the TELWG will demonstrate leadership in working with other APEC fora to support the development of telecommunications/ICT infrastructure and services across the region, assisting to secure the future economic prosperity, and global competitiveness for the Asia-Pacific region, and helping deliver telecommunications/ICT.

## 2 Priority Areas

The SAP 2021-2025 sets out the TELWG's priorities for the next five years and outlines how the TELWG will continue to play the leading role as the specialized forum in APEC on all telecommunications/ ICT matters, including contributing substantially to the digital economy through the implementation of the APEC Internet and Digital Economy Roadmap (AIDER).

The SAP 2021-2025 addresses this through four Priority Areas:

### 2.1 Telecommunication/ ICT Infrastructure and Connectivity

The TELWG will continue to promote an enabling environment that supports continuous investments in widespread and up-to-date telecommunication/ ICT infrastructure. Internet access has become indispensable to providing opportunities to people to improve their well-being, and driving productivity and innovation across the economy, bringing significant economic rewards and forming the underpinning foundation of digitalization.

The continuing trend of increasing data usage by governments, businesses and individuals alike make it incumbent upon economies to continuously upgrade the telecommunication/ ICT infrastructure across APEC in a manner that benefits all segments of society, and to promote awareness in the use of green and energy efficient ICT.

The telecommunication/ ICT infrastructure in the APEC region must be able to support the increase in Internet traffic, provide coverage with sufficient capacity and quality to ensure that data can flow at the volume, speed and reliability required to meet the demands of the digital economy. This will play a critical role in ensuring that everyone, wherever they live, whenever they want, and however they connect, can make full use of digital services and benefit from participation in the digital economy.

## 2.2 Trusted, Secure and Resilient ICT

The TELWG will continue to work to enhance trust and confidence in the use of ICTs by promoting the importance of cyber security, collaboration and cooperation, as well as the dissemination of knowledge. These support the capacity of all relevant stakeholders in the APEC economies to manage risks, create resilient networks, and facilitate a trusted environment for transactions and communications.

## 2.3 ICT Policies and Regulations to Enable Innovation, Economic Integration and Inclusiveness

The TELWG will promote regulatory and policy environments that encourage innovation and will consider how telecommunications/ICTs may further the endeavor and advance the development of emerging digital technologies. It will strengthen cooperation on and mutual understanding of ICT policies to advance balanced, inclusive, sustainable and innovative growth, accelerate regional economic integration, and facilitate cross border trade and investment. It will also consider the potential of ICTs to advance development goals and promote opportunities for all segments of society, in alignment with APEC-wide efforts to ensure better inclusiveness.

## 2.4 Collaboration in Telecommunications/ICTs and Applications

The TELWG will engage with groups and other fora within APEC to consider how to take advantage of the benefits of telecommunications/ICT and address issues arising from their application. The TELWG will seek to hold one of its meetings each year back-to-back with the meeting of the Digital Economy Steering Group (DESG), and at the same time as this annual joint meeting, will hold a Public and Private Dialogue, involving other APEC fora and sub-fora, as appropriate. Chair of TELWG, through consultation with the DESG Chair and hosting economy, will facilitate this activity.

The TELWG will also engage with groups external to APEC to maximise synergies, harness resources and minimize duplication.

## 3 Implementation

The implementation of the Priority Areas will be carried out by the TELWG's three Steering Groups with the following objectives and identified possible actions:

<b>Liberalisation Steering Group (LSG)</b>		
The Liberalisation Steering Group (LSG) works to foster continued market liberalization in the telecommunications/ ICT sector and encourage policy and regulatory environments that promote competition and enable innovation and investment. LSG also includes the Conformity Assessment & Mutual Recognition Agreement Task Force (CA&MRA TF), which aims to ensure the continued successful implementation and use of the MRA for CA and facilitate relevant information exchanges.		
<b>No.</b>	<b>Objectives</b>	<b>Actions</b>
1.	Promotion of an enabling environment that encourages inclusiveness, innovation and competition.	▪ Exchange information and best practices on policy and regulatory approaches in the digital

<b>Liberalisation Steering Group (LSG)</b>		
		<p>sphere towards fostering effective competition and innovation.</p> <ul style="list-style-type: none"> <li>▪ Exchange information and best practices on the use of telecommunications/ ICT networks and services to support vertical applications.</li> <li>▪ Exchange of information and best practices in managing the trends, use and challenges of new and emerging digital technologies.</li> <li>▪ Exchange information and best practices on ICT measurement and digital integration, and how it contributes to measuring the progress of digital transformation.</li> <li>▪ Promote opportunities to foster digital talents and reskilling/ upskilling in the APEC region.</li> <li>▪ Exchange information and best practices on initiatives to ensure inclusive digital transformation, including the promotion of gender equality and mainstreaming in the telecommunications/ ICT sector.</li> </ul>
2.	Increased availability, accessibility and affordability of ICTs.	<ul style="list-style-type: none"> <li>▪ Exchange information and sharing of best practices on universal telecommunications /ICT services strategies, including the development of Next-Generation Universal Service Obligations frameworks (“USO 2.0”).</li> <li>▪ Identify best practices for and exchange information on measuring and enhancing digital literacy and skills.</li> </ul>
3.	Promotion of acceptance of conformity assessment results and equivalence of technical requirements related to equipment through the work of CA&MRA TF.	<ul style="list-style-type: none"> <li>▪ Continued successful implementation and use of the MRA for CA, and encourage use of the MRA for ETR.</li> <li>▪ Exchange information and best practices on regulatory, technical and administrative requirements of the APEC Member Economies’ conformity assessment schemes.</li> <li>▪ Deploy and maintain key TF publications.</li> </ul>
4.	Conduct regular non-project activities on information and best practices sharing during the meetings.	<ul style="list-style-type: none"> <li>▪ Share regulatory updates on Digital Economy ICT/telecommunications regulatory and policy issues.</li> <li>▪ Share regulatory updates on spectrum management.</li> </ul>

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<b>ICT Development Steering Group (DSG)</b>		
<p>The Development Steering Group (DSG) is a forum for knowledge sharing and capacity building for deploying telecommunications/ ICT infrastructure, services and applications with the aim of bridging the digital divide, and preparing member economies and societies to benefit sustainably from the Internet and digital economy.</p>		
No.	Objectives	Actions
1.	Promotion of the deployment of telecommunications/ ICT infrastructure and adoption of emerging digital technologies to support increased access	<ul style="list-style-type: none"> <li>▪ Exchange information and approaches to improve the quality of broadband.</li> <li>▪ Exchange information and share best practices on the deployment of alternative solutions to provide access to the underserved groups and</li> </ul>

<b>ICT Development Steering Group (DSG)</b>		
	to broadband and ICT services across the APEC region.	<p>those in hard-to-reach locations such as satellite, high-altitude balloons, small-cell deployments, and other technologies.</p> <ul style="list-style-type: none"> <li>▪ Share technical guidelines on the use of telecommunications/ ICT networks and services to support vertical applications, such as smart sustainable cities.</li> <li>▪ Explore the technical requirements for deploying open radio access networks and virtualized networks.</li> <li>▪ Consider spectrum management aspects in the framework of deployment of telecommunications/ ICT infrastructure and adoption of emerging digital technologies.</li> <li>▪ Studies on emerging digital technologies, including the relevant standards, and how it complements the region's digital transformation.</li> </ul>
2.	Improved ICT literacy and competency among individuals and organizations, and further ICT leadership and governance capacity with the understanding of potential applications, challenges, benefits and risks of new technologies.	<ul style="list-style-type: none"> <li>▪ Exchange information and best practices on STEM education and trainings, especially for under-represented groups (with possible collaboration with HRDWG and PPWE).</li> <li>▪ Promote digital inclusion.</li> <li>▪ Enhance digital literacy, skills and competency for safe online use and experience.</li> <li>▪ Build organizational capacity to manage data in a secure and trustworthy manner.</li> <li>▪ Share initiatives to equip digital non-natives with relevant digital skills.</li> </ul>
3.	Promotion of sustainable environmental development through the use of green and energy-efficient ICTs.	<ul style="list-style-type: none"> <li>▪ Capacity building on green ICT metrics.</li> <li>▪ Exchange information on incentives for the production of greener ICT devices and equipment and e-cycling programs.</li> </ul>
4.	Promote the use of ICTs and emerging digital technologies in response to global challenges and pandemics.	<ul style="list-style-type: none"> <li>▪ Exchange relevant information, practices and solutions on the use of telecommunications/ ICT during and after global and regional emergencies and pandemics.</li> <li>▪ Participate in the implementation of the APEC TEL Initiative on Global Challenges and Cooperation Utilizing ICT– COVID-19 Pandemic and Beyond.</li> </ul>

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<b>Security and Prosperity Steering Group (SPSG)</b>		
The Security and Prosperity Steering Group (SPSG) aims to promote security and trust in networks, infrastructure, services, technologies, applications, and digital economy, as well as engage in capacity building on preventing and combating cyber-crime, responding to computer security incidents, and implementing cybersecurity awareness initiatives.		
<b>No.</b>	<b>Objectives</b>	<b>Actions</b>
1.	Implementation of the APEC Framework for Securing the Digital Economy.	<ul style="list-style-type: none"> <li>▪ Exchange information and best practices on telecommunications/ ICT confidence building measures and digital security risk management practices.</li> <li>▪ Develop "economy strategies" in consultation with relevant stakeholders.</li> </ul>
2.	Promotion of resilience of critical ICT infrastructure, and emergency response and preparedness.	<ul style="list-style-type: none"> <li>▪ Promote understanding of the importance of greater connectivity and enhance resilience of critical domestic infrastructure.</li> <li>▪ Support the capacity of relevant stakeholders in APEC economies to create resilient networks.</li> <li>▪ Examine and share best practices in the use of ICTs in responding to disaster risk reduction and global challenges.</li> <li>▪ Strengthen Industrial Control Systems (ICS) capacity in the region and share best practices.</li> <li>▪ Share cybersecurity threat information.</li> <li>▪ Strengthen cyber incident emergency response collaboration.</li> </ul>
3.	Improved cybersecurity awareness and capacity building among ICT users, including consumers, private sector, policymakers, and other relevant stakeholders, in coordination with the cybersecurity industry to facilitate the creation of a secure and trusted environment for transactions and communications.	<ul style="list-style-type: none"> <li>▪ Implement the APEC cybersecurity awareness day.</li> <li>▪ Implement cybersecurity education at all levels.</li> <li>▪ Promote consumer confidence and trust in the use of ICTs.</li> <li>▪ Exchange information and best practices on cybersecurity challenges and response with the aim at enhancing regional cybersecurity cooperation.</li> <li>▪ Promote regular cybersecurity collaboration and dialogues between governments, business community and consumers.</li> <li>▪ Promote policy and regulatory frameworks that strengthen the capacities of Member Economies to combat cybersecurity risks.</li> </ul>