

Annex A**TEL Strategic Action Plan 2016-2020: Planning and Prioritization****1. Develop and Support ICT Innovation**

The TEL WG will continue to promote infrastructure investment, connectivity and support the productive and innovative use of ICTs in line with technological trends. It will champion strategic opportunities for new ICTs and services, and will sponsor leadership on ICTs by bringing together ICT leaders from among stakeholder groups to share knowledge and form collaborative partnerships. TEL WG will explore ways ICTs can address emerging challenges such as disaster risk reduction and management, social responsibility, and help foster resilient, diverse, inclusive, and prosperous economies.

| No. | Objectives | Actions | DSG | LSG | SPSG | Timeline | Remarks |
|-----|---|--|---|---|------|--------------------|--|
| 1.1 | Promote innovation and value creation in ICTs | a) Strengthen cooperation in the field of research into new business models based on innovative use of ICTs. | Industrial Roundtable: ICT and innovation | | x | 2016 - 2017 | Economies to consider interest |
| | | b) Facilitate cooperation with stakeholders. | x | | x | 2016 - 2017 | Economies to consider interest |
| | | c) Promote policy and regulatory cooperation to enable ICT innovation, economic growth and address convergence, new services and changes in use. | x | 1) Workshop on the next generation broadcasting (4K/8K) - Japan - 2016 | x | 2016 | Economies to consider interest [JPN] - Target TEL53 |
| | | d) Promote availability and use of open data. | 1) Improvement of the living standards of socially deprived and vulnerable people through ICTs - Russia - 2016 | 1) Possible topic: Open data - Singapore – 2017 (interest – Brunei) | x | 2016 - 2017 | Economies to consider interest [RUS] - resubmission [SNG] - development of |

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| | | | | | | | the CN New Zealand considers possible projects |
| | | e) Share experiences and best practices on social and economic benefits from investment and liberalization of ICT infrastructure and services. | 1) Improvement of the living standards of socially deprived and vulnerable people through ICTs - Russia – 2016 2) Indicators of information society development in APEC region” – Russia – 2015 | x | x | 2016 - 2017 | Economies to consider interest [RUS1] - resubmission [RUS2] - Target November, 30 |
| | | f) Promote the use of ICTs to improve living standards of citizens, including disabled people and socially vulnerable groups. | 1) The needs for hearing or speech impairment in the Digital Economy - Australia - 2016 | | x | 2016 - 2017 | Economies to consider interest [AUS] - Concept note development [RUS] - resubmission |

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| | | | 2) Improvement of the living standards of socially deprived and vulnerable people through ICTs - Russia - 2016 | | | | |
| 1.2 | Continuous improvement in connectivity, including access to broadband | a) Exchange ideas and experiences on practical approaches for improving access to broadband services. | x | x | x | 2016 - 2017 | Economies to consider interest |
| | | b) Explore ways to increase availability, accessibility and affordability of ICTs for the underserved or unserved groups. | 1) The needs for hearing or speech impairment in the Digital Economy - Australia - 2016 2) Improvement of the living standards of socially deprived and vulnerable | x | | 2016 - 2020 | Economies to consider interest [AUS] - Concept note development [RUS] - resubmission [VN] - resubmission |

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| | | | people through ICTs - Russia - 2016 3) "Improving access to disaster information for fishermen: a specific case to explore priority information access for remote groups" - Vietnam - 2016-2017 | | | | |
| | | c) Promote access to high-speed next generation broadband networks and services. | High speed next generation NGNBN WSG - Singapore - 2017 | x | | 2016 - 2017 | Economies to consider interest [SNG] - prepare the CN |
| 1.3 | Enhanced digital literacy and improvement of citizens' | a) Identify and share best practice approaches to improve digital literacy of citizens. | x | | x | 2018 | Economies to consider interest |

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| | capability to fully participate in the Digital Economy | b) Exchange policies on improving access to ICTs in schools, libraries, etc. | | | x | | Economies to consider interest |
| | | c) Promote the use of ICTs in all stages of education, training and human resource development. | x | | x | 2017 – 2018 | Economies to consider interest |
| | | d) Promote creativity among ICT users to encourage innovation. | x | | x | 2017 – 2018 | Economies to consider interest |
| 1.4 | Greater adoption of ICTs within APEC economies | a) Identify and share best practices and strategies to encourage adoption of ICT services. | x | | x | 2017 – 2018 | Economies to consider interest |
| | | b) Explore ways to promote a culture or system that enable entrepreneurship and | x | | | 2017 – 2018 | Economies to consider interest |

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| | | innovation. | | | | | |
| | | c) Promote the development of entrepreneurship in the domain of internet. | x | | | 2017 – 2018 | Economies to consider interest |

2. Promote a Secure, Resilient and Trusted ICT Environment

The TEL WG 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.

| No. | Objectives | Actions | DSG | LSG | SPSG | Timeline | Remarks |
|-----|---|---|-----|-----|-----------------------------|---------------------------------|--------------------------------|
| 2.1 | Enhanced resilience of critical domestic infrastructure | a) Promote understanding of the importance of how greater connectivity impacts critical domestic infrastructure and the approaches to enhancing the resilience of critical domestic infrastructure. | x | | X | [DSG] - 2017 - 2018 2018 | Economies to consider interest |
| 2.2 | Greater capacity to enhance security and manage cyber risks | a) Support cyber security competency for ICT professionals and consumers. | | | CSIRT Indicator (USA, 2016) | 2017 | Economies to consider interest |
| | | b) Encourage information sharing relating to emerging cyber security threats and challenges, and approaches for managing cyber risks. | | | | 2017 | Economies to consider interest |

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| 2.3 | Increased awareness on cyber security | a) Engage governments, the private sector, other APEC fora as well as other relevant organizations to raise cyber security awareness. | | | Cyber Security Awareness Activity APEC Workshop on promoting secure public wi-fi usage based on Malaysian experience" – Malaysia - 2016 | 2016 | Economies to consider interest |
| | | b) Promote awareness among the general public through activities such as the APEC Cyber Security Awareness Day. | | | Cyber Security Awareness Activity | 2016 - 2020 | Economies to consider interest |
| 2.4 | Intensified promotion of secure and trusted use of ICTs | a) Share information and develop strategies for the protection of vulnerable groups. | | | Development of a Safe and Secure ICT use environment workshop - Japan - 2015 | 2015 - 2016 | Economies to consider interest |

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| | | b) Identify and share best practices on the appropriate handling of user information related to ICT services. | | | Development of a Safe and Secure ICT use environment workshop - Japan - 2015 | 2015 - 2016 | Economies to consider interest |
| | | c) Study and share experiences on countermeasures for spam. | | | Development of a Safe and Secure ICT use environment workshop - Japan - 2015 | 2015 - 2016 | Economies to consider interest |
| | | d) Promote consumer confidence in the use of ICTs. | | | Development of a Safe and Secure ICT use environment workshop - Japan - 2015 | 2015 - 2016 | Economies to consider interest |
| 2.5 | Increased collaboration among APEC economies | a) Share domestic developments and best practices to support capacity building in the region. | E-government Center - Japan - till 2020 | x | Cybersecurity Framework (Thailand, 2016) | [DSG] 2017 - 2018 2018 | Economies to consider interest |

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| | | b) Foster a common understanding for counter measures to cyber threats and measures to protect privacy in the APEC region. | | x | X | 2018 | Economies to consider interest |

3. Promote Regional Economic Integration

The TEL WG will continue to work in support of regional economic integration by promoting connectivity, regulatory coherence and technical harmonisation. This includes physical, institutional, and people-to-people as well as online connectivity to address relevant emerging issues. TEL will advance measures which promote interoperability and trans-border cooperation.

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|-----|-------------------------------------|---|---|--|------|------------------------|---|
| 3.1 | Enhanced physical connectivity | a) Promote quality of ICT infrastructure. | APII - Korea | Economic and Engineering Analysis for providing fixed and mobile broadband with Quality of Service assurance - Peru - 2016 | X | [DSG] 2016 2016 | Economies to consider interest [PE] - Resubmission |
| | | b) Promote diversity in the use of ICTs. | Multilingualism Research on Multilanguage e-mail address in e-government - China - 2016 | x | x | [DSG] 2016 2018 | Economies to consider interest [CPR] - Update on the project |
| 3.2 | Enhanced institutional connectivity | a) Promote conducive regulatory environments. | | x | x | 2016 | Economies to consider interest QoS |
| | | b) Promote interoperability between APEC economies. | | MRA TF | x | 2016 | Economies to consider interest |
| | | c) Promote development and | | x | | 2016 - 2018 | Economies to consider interest |

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| | | use of global data standards. | | | | | Global Data Standard [A2C2 - LSG?] |
| | | d) Reduce mobile roaming rates between APEC economies. | | International Roaming Service in APEC Region - Peru - 2016 (interest – AUS, NZ, SNG) | | 2016 | Economies to consider interest [PE] - resubmission |
| | | e) Research on promoting the free flow of information. | | x | | 2017 | Economies to consider interest OTT, Network neutrality |
| 3.3 | Enhanced people-to-people connectivity | a) Promote a common ICT Skills Recognition Framework (ICT SRF) within the APEC region. | Connecting the unconnected - Malaysia - 2017 | | | [DSG] 2017 | Economies to consider interest [MAS] - Create CN |
| 3.4 | Enhanced online connectivity | a) Promote open data in APEC region. | | Topic of Regulatory Round Table at TEL51 - | x | 2016 | Economies to consider interest |

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| | | | | 2015 | | | <ul style="list-style-type: none"> Possible project proposal from Philippines |
| | | b) Promote development of cross- border e-commerce. | X | x | x | 2018 | Economies to consider interest |
| | | c) Promote the Internet of Things (IoT) and application-to-application connectivity. | 1) IoT based global networks for monitoring and prevention of natural and technogenic emergencies – Russia – 2017 2) IoV - China - 2017 | Topic of Industry Round Table at TEL51 - 2015 | x | [DSG] 2016 | Economies to consider interest [RUS] - Create CN |
| | | d) Promotion of digital content within the APEC region. | X | x | x | [DSG] 2016 2018 | Economies to consider interest |
| | | e) Promote greater adoption of IPv6. | IPv6 deployment Strategies - Singapore - 2016 | x | x | [DSG] 2016 2017 | Economies to consider interest [SNG] - prepare CN |

4. Enhance the Digital Economy and the Internet Economy

The TEL WG will continue to work in support of the development of a vibrant Digital Economy with a focus on the Internet Economy. In order to promote smart, green, creative, inclusive and sustainable development of the economy, the TEL WG also supports raising the overall level of ICT industry development and the extensive integration of ICTs with other industries.

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|-----|---------------------------------|--|--|---|------|---------------------------------|--|
| 4.1 | Enhanced ICT industry ecosystem | a) Promote the enhancement of ICT hardware, software and networks. | X | Workshop on the next generation broadcasting (4K/8K) - Japan - 2016 | x | [DSG] 2017 2016 | Economies to consider interest [JPN] - Target TEL53 |
| | | b) Promote the development of sustainable smart cities in the APEC region. | The title of the Singapore Project??? | x | x | [DSG] 2017 | Economies to consider interest Singapore – 2017 - update on information |
| | | c) Promote business use of new-generation mobile communication. | Next Generation Mobile Communications - Singapore - 2017 | x | x | [DSG] 2017 | Economies to consider interest Singapore – 2017 - update on information |
| | | d) Promote efficient use of spectrum resources. | TV white space - Singapore - 2015 | | x | [DSG] 2016 - 2017 2016 | Economies to consider interest |

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| | | e) Promote measures that are conducive to the ICT industry to support a robust Digital Economy. | ICT industries for digital economy (start-ups) - Singapore - 2017 | x | x | [DSG] 2016 - 2017 | Economies to consider interest Singapore – 2017- update on information |
| 4.2 | Accelerated evolution of traditional industries through comprehensive use of ICTs | a) Encourage the use of ICTs to transform business practices in traditional industries. | “Facilitating innovative economic development of Internet + Service Industries” – China - 2016 | | | [DSG] 2016- 2017 - 2018 | [CN] - Proceed the project |
| | | b) Foster the exchanges between communication and other industries. | | | | | Economies to consider interest Convenors to consider interest and timeline |
| | | c) Share policy experiences on ICT application. | Workshop on Internet of Things (IOT) - China - 2015 | x | | 2016 | Economies to consider interest |
| 4.3 | Development of new industries | a) Promote the development of new industries through the application of ICTs. | x | | x | [DSG] 2016 | Economies to consider interest |

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| | | b) Promote a favourable environment for innovation in new economic sectors. | Facilitating innovative economic development of Internet + Service Industries – China - 2016 | x | x | [DSG] 2016 – 2017 | Economies to consider interest |

5. Strengthen Cooperation

The TEL WG will engage with groups within APEC and other fora to consider how to apply digital technologies and issues arising from their application. The TEL WG will engage with groups outside APEC to maximise synergies, harness resources and minimize duplication between the work of these groups and that of TEL.

| No. | Objectives | Actions | DSG | LSG | SPSG | Timeline | Remarks |
|-----|--|---|--|-----|------|----------|---|
| 5.1 | Collaboration within the APEC groups- provide thought leadership and coordination of, as well as secondary advice on ICTs related activities within APEC | Engage and collaborate with relevant APEC groups including the: a) Committee on Trade and Investment- to strengthen and contribute to regional economic integration; | | x | | | Economies to consider interest Convenors to consider interest and timeline |
| | | b) Ad-Hoc Steering Group on the Internet Economy; | | x | x | | Economies to consider interest Convenors to consider interest and timeline |
| | | c) Electronic Commerce Steering Group and the Counter Terrorism Taskforce- to promote a trusted ICTs environment; | | x | x | | Economies to consider interest Convenors to consider interest and timeline |
| | | d) Emergency Preparedness Working Group- to promote the benefits of and share policy options for using ICTs for emergency | 1)IoT based global networks for monitoring and prevention of natural and technogenic emergencies – | x | x | | [RUS1] - Create CN [RUS2] - Target November, 30 |

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| | | preparedness and disaster prevention/mitigation; | Russia – 2017 2) “Cooperation program on creating a common interoperable approach to improving the efficiency of existing disaster management systems based on ICT” - Russia - 2015 | | | | |
| | | e) Health Working Group- to identify effective e-Health applications; | | x | | | |
| | | f) Group on Services- to promote trade and investment liberalisation and facilitation (TILF) issues related to trade in ICTs services. | | x | | | |

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|-----|---|--|-----|-----|------|------------|---|
| | | g) Finance Ministers' Process (FMP)- to foster awareness of mobile banking activities to better reach the unserved population due to geographic or economic/ financial barriers. | | x | | | Convenors to consider interest and timeline |
| | | h) SME Working Group- to promote the development of SMEs by increasing the opportunity of SMEs to access the Internet and reduce the cost of using it. | | x | | | Economies to consider interest Convenors to consider interest and timeline |
| 5.2 | Collaboration with groups external to APEC to maximise synergies, harness resources and | a) Gather ICT leaders from among stakeholders to share knowledge and form cross-regional collaborative partnerships. | x | x | | [DSG] 2017 | Economies to consider interest |
| | | | | | | | Economies to consider |


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| | minimise duplication of work undertaken by APEC TEL | b) Collaboration with the ICT industry, relevant multilateral organisations and Internet-related technical and administrative bodies on issues. | x 34 | x 39 | x 45 | [DSG] 2017 | interest |

Note:

 - accomplished;

 - under implementation;

 - planning to implement or suggest.