Joint Declaration by G7 ICT Ministers

(Action Plan on implementing the Charter)

G7 ICT Ministers' Meeting in Takamatsu, Kagawa - 29-30 April 2016

[Preamble]

1. We, the Information and Communication Technology (ICT) Ministers of the G7, met at Takamatsu, Kagawa, Japan on 29 and 30 April 2016, to address current and future global ICT opportunities and challenges for sustainable and inclusive development.

2. We recall the Okinawa Charter on Global Information Society (July 2000), the G8 Declaration in Deauville (May 2011) and the Open Data Charter (June 2013) which have contributed to global progress in expanding the digitally connected world.

3. We welcome:
   - The Outcome Document of the High Level Meeting of the United Nations General Assembly on the overall review of the implementation of the outcome of the World Summit on the Information Society (WSIS), including the extension of the mandate of the Internet Governance Forum (IGF) as a multi-stakeholder platform for discussion of Internet governance issues;
   - The Internet Governance Principles of the NETmundial Multistakeholder Statement;
   - "The 2030 Agenda for Sustainable Development" (hereinafter "the 2030 Agenda") for attaining the United Nations Sustainable Development Goals; and
   - The Paris Agreement, adopted at COP21, which refers to the importance of innovation.

4. We also welcome Initiatives to promote the digitally connected world, including:
   - "A Digital Single Market Strategy" for Europe initiated by the European Union;
   - "The Global Connect Initiative" launched by the United States;
   - "Partnership for Quality Infrastructure" addressed by Japan;
   - "The Development and Digital Technology" action plan launched by France;
   - "The Digital Agenda" launched by Germany;
   - "The Broadband Strategy and the Strategy for Digital Growth" launched by Italy in the framework of the European Digital Agenda;
   - "The Surrey University 5G Innovation Centre" established by the United Kingdom; and
   - Canada's "Innovation Agenda" and the commitment to expand broadband access.

5. We also welcome the outcome from the G7 ICT Multi-Stakeholders' Conference in Takamatsu, Kagawa on 29 April 2016, for discussing current and future global ICT opportunities and challenges with all stakeholders.

6. We look forward to the outcomes of the OECD Ministerial Meeting on the Digital Economy: Innovation, Growth and Social Prosperity to be held in Cancun, Mexico, on 21 to 23 June 2016.

7. We commit to take the following actions based on the Charter for the Digitally Connected World to maximize its potential:

[Actions]

ⅰ. Promoting access to ICT

8. In order to promote access to ICT, we encourage the following actions.

a) Bridging digital divides

9. We continue to encourage the development of infrastructure for the digitally connected world and policies that support the global expansion of ICT infrastructure, products, and services including broadband Internet access to all people. Toward that end, we seek to catalyze multi-stakeholder efforts to bring 1.5 billion new Internet users online by 2020.

10. We also continue to share good practices with other countries and regions. We encourage increased support from technical experts, international organizations, and all stakeholders including multilateral development banks for development initiatives. We also encourage the integration of Internet access goals into national development plans.

11. With regard to improving connectivity infrastructure, we encourage private sector investment in a competitive environment and using technologically neutral frameworks. Public-private partnerships can help to amplify the power of both public and private sectors to promote the development and deployment of sustainable, high-quality infrastructures.

12. We recognize the importance of development, interconnection and utilization of national research and education networks as providing an open infrastructure for education, research and development purposes that also serve to enhance connectivity around the world.

b) Improving the quality and affordability of ICT infrastructure, products and services globally through investment and fair and transparent policy and legal frameworks that encourage competition

13. We plan to share best practices for promoting affordable access including through fair, predictable and transparent policy and legal environments that facilitate competition, stimulate investment and generation of local content as well as introduction of lower cost technologies.

c) Promoting accessibility and digital literacy for everyone

14. We continue to promote efforts that address the challenges of digital exclusion through education and training on essential digital skills and initiatives to facilitate the use of ICTs, including the Internet, to all people. Particular attention should be paid to women and girls, the elderly, youth, persons with disabilities, minorities, rural populations, poor communities, the illiterate and other vulnerable populations.

d) Respecting cultural and linguistic diversity

15. We encourage continued research, development, and deployment of multilingual translation technology and support the further development of local content and services in a variety of languages. We also support the development of new technologies including those for audio visual content that foster cultural and linguistic diversity. Also, we note that digital technologies have relevance to the implementation of the UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions adopted in 2005.

ii . Promoting and protecting the free flow of information

16. In order to promote and protect the free flow of information, we encourage the following actions.

a) Promoting internet openness and cross-border information flows

17. We continue to support ICT policies that preserve the global nature of the Internet, promote the flow of information across borders and allow Internet users to access online information, knowledge and services of their choice. We oppose data localization requirements that are unjustifiable taking into account legitimate public policy objectives.

b) Promoting privacy and data protection

18. We endeavor to develop policy frameworks that further promote effective privacy and data protection across jurisdictions to meet high standards of privacy and data protection. We also welcome proactive approaches such as “Privacy by Design”

which take privacy and protecting personal data into account throughout the engineering process.

c) Promoting cybersecurity

19. We reaffirm our support for policies that improve cybersecurity as essential for the development of a trustworthy digitally connected world. As part of our efforts to address cybersecurity risks, threats and vulnerabilities, including those to ICT and ICT-enabled critical infrastructures, we endeavor to strengthen international collaboration, capacity building and public-private partnerships. We also support risk management based approaches to cybersecurity including research on methods to analyze threats and continue to work with all stakeholders on such efforts also through constructive discussions in international fora.

20. To promote cybersecurity awareness, all stakeholders in the digitally connected world must take active responsibility. To this end, we recognize the importance of developing human capital to reduce threats to cybersecurity. That could be done through training, education and increased awareness to enable citizens, enterprises including critical infrastructure operators and governments to meet their objectives in an efficient manner.

iii. Fostering innovation

21. In order to foster innovation, we encourage the following actions.

a) Enabling open markets

22. We continue to encourage policies that foster open markets as a means to support innovation. We affirm the importance of pro-competition policy approaches that ensure fair and non-discriminatory treatment of companies and that avoid the use of competition remedies to pursue industrial policy goals. We affirm that generally applicable measures regulating technology products in the commercial sector benefit from meaningful consultation with foreign governments, the private sector, and all impacted stakeholders to encourage innovative, flexible, and cost-effective solutions.

b) Promoting interoperability through standards

23. We promote the development of ICT standards including reference architecture models that will continue to be industry-led primarily, voluntary and consensus driven, based on principles of transparency, openness, impartiality, market needs and coherence including those developed within traditional standard development organizations.

c) Promoting open data policies

24. In 2013 the G8 summit in Lough Erne endorsed a transformative Open Data Charter to make budget data and other government information public in an easily accessible way. Recognizing that making information resources accessible, discoverable, and usable by the public can improve the lives of citizens and help fuel entrepreneurship, innovation, and scientific discovery, we commit to continue to promote frameworks to facilitate interoperability and openness.

d) Developing human capital

25. We encourage actions to develop ICT human capital to meet existing and future needs and to help small and medium-sized enterprises (SMEs) increase productivity and reach new markets by using ICT.

e) Protecting intellectual property

26. We affirm the importance of developing and protecting intellectual property, including trade secrets. We recognize that strong intellectual property regimes foster open markets, competition, innovation and growth. We oppose generally applicable policies that require access to or transfer of source code of mass market software as a condition of market access while recognizing the legitimate interest of governments in assessing the security of these products.

f) Facilitating R&D and adoption of emerging technologies

27. We recognize the importance of facilitating emerging technologies in achieving a digitally connected world. We reaffirm our commitment to encouraging ICT R&D relating to emerging technologies such as the Internet of Things, big data analytics, 5G mobile telecommunications, Artificial Intelligence (AI), and robotics. We plan to ensure that our policy frameworks take into account the broader societal and economic implications of such technologies as they are developed while remaining technology neutral.

ⅳ. Using ICT to address global challenges and opportunities

28. We commit to sharing experience relating to initiatives that leverage ICTs to contribute to the 2030 Agenda, notably in areas such as poverty and hunger, health care, child online protection, the ageing society, education, gender equality and the empowerment of women and girls, accessibility, energy and climate change, resilience and disaster risk reduction, and sustainable transportation and logistics.

29. We also recognize that the WSIS outcomes, and Action Lines, continue to provide the appropriate international framework for multi-stakeholder collaboration in the

use of ICTs to achieve the 2030 Agenda and other internationally agreed development goals.

30. We commit to working with all stakeholders at the national, regional, and international levels to use new and innovative approaches to achieving these development goals and improving the quality of life for all people around the world.

v. Strengthening Comprehensive International Cooperation and Collaboration

31. In order to effectively implement the aforementioned actions, we resolve to enhance international cooperation and collaboration among all stakeholders. We plan to encourage other countries and regions to undertake efforts to support the digitally connected world and promote an environment that encourages innovation.

32. We seek to promote amongst the G7 members and more widely in appropriate international organizations and fora the opportunities for collaboration and best practice sharing including the examples detailed in the attached Annex. Furthermore, we welcome initiatives to assess the social and economic impact of ICTs in the digitally connected world.

[Follow-up and Review]

33. In order to ensure the implementation of this Declaration based on the Charter for the Digitally Connected World, we commit to follow-up at the Presidency's discretion at future G7 ICT Ministers' Meetings, and review this Declaration, if necessary.

34. We welcome the intention of the forthcoming Italian Presidency of the G7 to convene an ICT Ministers' Meeting in 2017.

ANNEX

G7 Opportunities for Collaboration

To strengthen international cooperation and collaboration and to achieve the actions in the G7 ICT Ministers' Joint Declaration, G7 members seek to share information on the following opportunities for collaboration where greater international cooperation could be an asset, and encourage all G7 members to consider expanding collaboration on the following initiatives:

Promoting access to ICT

- The United States welcomes collaboration on the Global Connect Initiative (GCI), a multistakeholder effort with the goal of bringing an additional 1.5 billion people online by 2020. The Global Connect Initiative promotes the notion that Internet infrastructure is critical to economic development. Through it, stakeholders from governments, international financial institutions, businesses, and civil society organizations work together to encourage countries to integrate Internet connectivity in national development strategies and to create policy environments that enable broadband deployment; to ensure that international development institutions prioritize digital access; and to catalyze and support innovative industry-driven solutions to extend connectivity. At the April 14 Global Connect Initiative High Level Event cohosted by the U.S. Department of State and the World Bank, participants announced more than 65 new and ongoing initiatives supporting connectivity with investment valued at over $20 billion. More information is available here: https://share.america.gov/globalconnect/.

- Japan welcomes collaboration on initiatives to promote quality ICT infrastructure and share information on its development and deployment in accordance with Japan's Partnership for Quality Infrastructure (PQI). Specifically, Japan welcomes collaboration on an international symposium to share knowledge and expertise about the development of quality broadband infrastructure, taking into account the outcomes of the Global Connect Initiative and discussion at the G7 ICT Minister's Meeting in Takamatsu, Kagawa, Japan.

- Japan, Italy and Canada welcome collaboration on initiatives to improve ICT literacy amongst children, which aims to promote safe and secure use of Internet by them.

- Italy welcomes collaboration on initiatives that promote a fully usable and accessible digitalization of cultural heritage to all. We encourage the G7 to promote capillary digitalization of artifacts and sites. G7 members can work together with all the stakeholder interested to be part of a common world digital platform accessible to all the humanity. Furthermore, Italy strongly support the UNESCO recently approved initiative on the United Nations' Blue Helmets protecting heritage sites around the world at important sites at risk from terrorist attacks, or in war zones, or zones hit by natural disasters.

- Canada too welcomes collaboration that promotes the digitalization of history, such as oral interviews, digitized artefacts, and memorabilia related to various global conflicts.

- France welcomes collaboration on initiatives on the Development and Digital Technology action plan launched in December 2015, which aims to support developing countries in their efforts to deploy networks and develop digital economies, and to strengthen the connections between French cooperative development efforts and those involving digital and economic diplomacy.

- Italy and the European Union welcome collaboration on initiatives on Licensed Shared Access (LSA) spectrum, which aims to provide an efficient and flexible use of the spectrum as concrete solution for new generation mobile internet access (LTE, 5G) thus to allow an agile mobile broadband growth.

- Italy welcomes collaboration on network digitalization and convergence between smart grids and ultra broadband networks, which contributes to develop the backbone of Smart Cities, helps to increase the access of people and interactions of things, addresses the important issues related to energy efficiency and climate change.

- Canada is supporting multilateral financial institutions – including the World Bank, the Asia Development Bank and the African Development Bank - to address infrastructure gaps in developing countries, including access to ICT infrastructure, as well as to develop the private sector and increase the supply of skilled workers and access to technology, among other pressing areas"

- The United Kingdom welcomes collaboration in the 5G Innovation Centre (5GIC). The Institute for Communications Systems at the University of Surrey in the UK is host to the 5GIC which is an international collaboration between the university and industry, including operators, manufacturers, service providers and research organisations. Its mission is to conduct impactful research into 5G and Internet of Things technologies and the application of those to technologies and innovations to different vertical industries including for example eHealth, mHealth, connected cars and autonomous vehicles, advanced manufacturing and smart homes and cities. The 5GIC has an extensive on-campus pilot network to enable testing and development of candidate 5G technologies and 5GIC is seeking additional partners and collaborations, particularly with regard to research, innovation, international standardisation and pilots activity related to 5G and IoT.

Promoting and protecting the free flow of information

- Japan welcomes collaboration on the CyberGreen Project, which is a global collaborative initiative which aims to develop and utilize risk-based common metrics for assessing cyber risks to eliminate bots and vulnerable network servers and make the cyberspace clean and resilient to cyberattack.

- Japan welcomes collaboration on the Network Incident Analysis Center for Tactical Emergency Response (NICTER), as a method to observe and analyze threats in the cyberspace to comprehend global trends of malicious activities and to share analysis results in a real-time manner.

- Japan welcomes collaboration among Information Sharing and Analysis Centers (ISACs) and related bodies for the purpose of sharing best practices on Critical Information Infrastructure Protection.

- The United States welcomes collaboration to support initiatives to enhance open source security, such as the Linux Foundation's Core Infrastructure Initiative (CII). CII is a new initiative that performs security audits and remediates vulnerabilities in key open source software projects. Our long term goal is to change the way open source tools are developed to ensure that software is more secure from inception and that vulnerabilities, when discovered, are easily patched.

- France welcomes information sharing in the field of data economy, which brings even more benefits with the association of many ecosystems in order to create a bigger market for companies to address, to improve use cases results and to share best practices.

- Canada welcomes international collaboration in the domain of spam and malware intelligence. Greater information sharing between international partners and their respective spam reporting centers will lead to more timely and effective intelligence, improving our collective enforcement of spam, malware, phishing and other online threats, creating a safer and more secure cyberspace.

Fostering Innovation

- Japan welcomes international harmonization of 5G standardization including the collaboration among 5G promotion bodies such as the 5th Generation Mobile Communications Promotion Forum(5GMF).

- Germany, Japan and France welcome international collaboration on governmental level and/or the level of private bodies as well as on the level of initiatives related to the purpose of promoting IoT including various international organizations conducting similar activities. Japan welcomes collaboration to study the impact of IoT services on existing regulations across sectors.

- Japan, Germany and Italy welcome collaboration to study the development of ICT services using networked artificial intelligence (AI), autonomous systems and robotics. This investigation will seek to discuss and share information on possible principles in development of networked AI and its social and economic impacts.

- The European Union welcomes collaboration on the Human Brain Project (HBP), which is developing an open research data infrastructure that will help scientists accelerate our

understanding of the human brain, make advances in defining and diagnosing brain disorders, and develop new brain-like technologies. 112 Partners in 24 countries in Europe and around the world participate on this key project involving organizations from all G7 countries.

- The European Union welcomes continued collaboration on the Research Data Alliance (RDA), which allows researchers and innovators to openly share data across technologies, disciplines, and countries to address the grand challenges of society.

- The European Union welcomes continued collaboration on GÉANT, which aims to network the research and education community globally via extensive global partnership.

- Canada welcomes collaboration through the Globalink program delivered by Mitacs Inc. with support from the Government of Canada. Globalink supports international research collaboration and the mobility of highly talented undergraduate and graduate level students across a broad spectrum of academic disciplines, by enabling students from a variety of countries to participate in four-month research projects at an academic institution in Canada as well as enabling students from Canada to complete a similar research internship at an academic institution or company outside of Canada.

- Canada welcomes international collaboration via CANARIE to connect research and education communities to the world by enabling multinational teams to harness their collective expertise and collaborate on global research challenges.

- Japan welcomes continued collaboration on national research and education networks including Testbed network (JGN) which provides an open infrastructure for research and development.

- Germany welcomes collaboration on reference architecture models that will continue to be primarily industry-led, voluntary and consensus driven, based on principles of transparency, openness, impartiality, market needs and coherence.

- The United States welcomes collaboration on the Global Cities Teams Challenge (GCTC) and encourages cities in the G7 to join the Challenge. GCTC's long-term goal is to establish and demonstrate replicable, scalable, and sustainable models for incubation and deployment of interoperable, standard-based IoT solutions and demonstrate their measurable benefits in Smart Communities/Cities. This program will help communities benefit from the experience of others to improve efficiency and lower costs.

- France welcomes collaboration on its "French Tech" initiative, a program bringing together start-ups, R&D centers, venture capital funds, fab labs, media, bloggers, government agencies… in order to support start-ups' growth and their international development.

- The UK has established a global center of excellence in Smart Cities, the Future Cities Catapult in London. Among other activities, the Catapult works with cities, companies and the British Standards Institution to develop smart city standards. We recognize that other organizations are also developing standards internationally, including ITU, ISO and IEC. We recommend that Governments encourage their standards bodies to engage in this work, to bring different smart city standards work together, to support harmonization and development of a global market for urban innovation, and to facilitate learning between cities. We also recommend that Governments encourage their cities to engage in this process, so that standards develop fully meet their needs.

Using ICT to address global challenges and opportunities

- The European Union and Japan welcomes information sharing on the results of its development of communication robot technologies promoting the safety and security of watching-over and care services for elderly people and children, including the progress of the Japan-EU Cooperation project on Novel ICT Robotics based solutions for active and healthy aging

- The United Kingdom invites active support for the WePROTECT Global Alliance to End Online Child Sexual Exploitation following the agreement to merge the WePROTECT initiative, which was launched by the UK in 2014 to protect children online, and the Global Alliance Against Child Sexual Abuse Online, which is led by the USA and the EU. The mission of the WePROTECT Global Alliance will be to empower everyone with a responsibility to protect children online to identify and protect victims, to remove child sexual abuse material from the Internet, and to strengthen cooperation to track down the perpetrators of this abuse all over the world.

- The European Union welcomes global cooperation concerning open digital solutions addressing the ageing populations, including sharing of good practices, innovative solutions and socio-economic evidence of impact.

- Japan welcomes collaboration to address global issues such as disaster risk reduction.

- The United Kingdom welcomes collaboration to enable and enhance Internet connectivity globally, but particularly in sub-Saharan Africa which is the region with the lowest Internet penetration rate in the world. The UK welcomes all collaboration which contributes towards the Global Goal target to provide universal and affordable access to the Internet in the least developed countries by 2020.

- Canada welcomes collaboration on the research program “Information and Networks in Asia and Sub-Saharan Africa (INASSA)” to establish eight research networks spread across Low Income, and DFID Priority, Countries. These networks will work to build capacity and generate new evidence on the positive and negative impacts of increasing levels of access to internet and mobile technologies in Low Income Countries (LICs).

This will help to inform emerging policy that looks to empower the world's poorest people through technology.

Reviews

Japan welcomes the G7 members to participate in a mid-term review seminar which Japan intends to host to bridge the work with the next G7 Presidency of Italy.