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**WSIS ACTION LINES  
SUPPORTING THE  
IMPLEMENTATION  
OF THE SDGs**



### **Structure of the report:**

- Introduction
- WSIS Action Lines and SDGs Matrix
- C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development
- C2. Information and communication infrastructure
- C3. Access to information and knowledge
- C4. Capacity building
- C5. Building confidence and security in the use of ICTs
- C6. Enabling environment
- C7. ICT Applications:
  - E-government
  - E-business
  - E-learning
  - E-health
  - E-employment
  - E-environment
  - E-agriculture
  - E-science
- C8. Cultural diversity and identity, linguistic diversity and local content
- C9. Media
- C10. Ethical dimensions of the Information Society
- C11. International and regional cooperation
- Conclusion and Way Forward.

### **Format for each Action Line Reporting:**

- 11/2 Page in total
- How does your Action Line aim at supporting the implementation of the SDGs
- Supplemented with a case study if possible

NOTE: Please do send us photographs of project implementation for the report, if you have any



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## **Action Line C1: The role of public governance authorities and all stakeholders in the promotion of ICTs for development**

ICTs will play a critical role in promoting, advancing and measuring the Sustainable Development Goals (SDGs). The outcome document of the General Assembly High-level Meeting on the overall review of the outcomes of the World Summit on the Information Society (WSIS+10)<sup>1</sup>, adopted by the General Assembly in December 2015, notes that Information and Communication Technologies (ICTs) can accelerate progress across all 17 goals. The outcome document further calls upon all governments, the private sector, civil society, international organizations, the technical and academic communities and all other relevant stakeholders to integrate ICTs into their approaches for implementing the SDGs, and request the United Nations entities to facilitate the WSIS Action Lines and to review their reporting and work plans to support the 2030 Agenda implementation.

ICTs have clearly demonstrated their value as cross-cutting facilitators and enablers of sustainable development. For example, increased Internet use can reduce poverty and create jobs through increased efficiency and transparency in government. ICTs can be used for creation of various data banks on diseases and can also assist governments and decision makers in health planning; they bring together people in danger, collect knowledge from specialists, and monitor the spread of a disease by governments and healthcare workers. ICTs can also contribute to achieving gender equality by including women in policy-making through e-voting and e-learning, enhancing women's ability to take surveys, and allowing them to anonymously make complaints and to participate in discussion forums.

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<sup>1</sup> <http://workspace.unpan.org/sites/Internet/Documents/UNPAN96078.pdf>



The role of public governance authorities is crucial in the promotion of ICTs for achieving better results, the provision of a robust enabling environment for ICTs to flourish can accelerate the implementation of the SDGs. Capacity-building, particularly for vulnerable groups, is equally important as is demand-driven policy advice and technical assistance. Public authorities are also expected to provide such support during the implementation of the SDGs.

Public authorities and other stakeholders have also an important role in minimizing the threats that come with ICTs such as cybersecurity, data protection, etc. There is an ongoing need for developing legal and enforcement frameworks to keep up with the speed of technological advancement. A global culture of online security needs to be promoted and developed by all stakeholders. A secure online space will definitely accelerate the progress of achieving the SDGs.

#### Case Study: UNDESA Development Account Projects on e-Participation and Open Government Data

Although broad public participation is considered to be fundamental for achieving sustainable development, many countries have not fully harnessed the power of ICTs for national development efforts. The United Nations Department of Economic and Social Affairs (UNDESA) through its Division for Public Administration and Development Management (DPADM) initiated two projects for increasing government capacities on citizen engagement through ICTs and Open Government data and developed a toolkit called Measurement and Evaluation tool for Engagement and E-participation<sup>2</sup> (METEP). The tool helps governments to better engage with citizens in formulating, implementing and evaluating development policies. It also empowers businesses, civil society organizations and citizens to demand public services and participate in decision making processes.

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<sup>2</sup> <http://www.metep.org>





For more information, please visit: <http://www.metep.org>

The second project, *Strengthening of Capacities of Developing Countries to Provide Access to Information for Sustainable Development through Open Government Data* demonstrates the potential and benefits of using Open Government Data (OGD) in advancing transparency, accountability and sustainable development in selected countries. In partnership with national counterparts, the project aims at developing a strategy for open data as well as a policy framework and technical infrastructure for the implementation of OGD initiatives. The main target beneficiaries include government officials responsible for data coordination in the country.



For more information, please visit:  
<https://publicadministration.un.org/en/ogd>



## Action Line C2: Information and communication infrastructure

As mentioned in the Outcome Document of the High-Level Meeting of the General Assembly on the overall review of the implementation of WSIS Outcomes and as recognized on the 2030 Agenda to SDG: [Resolution 70/1](#) - Transforming our world: the 2030 Agenda for Sustainable Development, high-speed broadband has been recognized as an essential enabler of sustainable development. At the same time, harnessing ICT for development and bridging digital divides will require greater and sustainable investment in ICT infrastructure and services.

On the other hand, the [WSIS-SDG Matrix](#) developed by UN WSIS Action line Facilitators is playing a key role to serve as the mechanism to map, analyze and coordinate the use of ICTs as enablers and catalysts for the implementation of the SDGs.

### **Res. 70/1: Action Line C2 – Highlights:**

*-Broadband – 23. “...we acknowledge that speed, stability, affordability, ... and high--speed broadband is already an essential enabler of sustainable development....”*

*-Interoperability –24. “...We further recognize the value of the variety of interoperable and affordable ICT solutions, including such models as proprietary, open-source and free software.”*

*-Infrastructure –35. “...we recognize, however, that harnessing ICT for development and bridging digital divides will require greater and sustainable investment in ICT infrastructure and services,...”*

*-Mapping of ICT- 70. “We acknowledge the importance of data and statistics to support information and communications technology for development, and call for further quantitative data to support evidence-based decision-making;”*

Considering the above trend, the [Action Line C2 Facilitator’s Meeting](#) focused on the “Implementation of Information and Communication Infrastructure Goals, covering technical, economic and policy aspects”, identified by the WSIS-SDG Matrix. The Meeting discussed on how newest and affordable ICT



#### SDG – Action Line C2 – Matrix:

- 1.4: By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance
- 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
- 9.1: Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all
- 9.a: Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States
- 9.c: Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020.
- 11.5: By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the economic losses relative to gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations
- 11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels

technologies, in conjunction with innovative ways for funding ICT development and challenges can be addressed to accomplish SDGs. The following aspects of broadband implementation are to be considered by multi-stakeholders:

[Technical Aspects: New Technologies]	Economic Aspects: Affordable Infrastructure]	[Policy Aspects: Public policies to foster the development of Broadband Infrastructure]
<ul style="list-style-type: none"> <li>•SDG 9.c</li> <li>•DG 9.a</li> </ul>	<ul style="list-style-type: none"> <li>•SDG 8.2;</li> <li>•SDG 9.1</li> <li>•SDG 1.4</li> </ul>	<ul style="list-style-type: none"> <li>•SDG 11.5</li> <li>•SDG 11.b;</li> </ul>

#### Case Studies from the Action Line C2 Facilitator`s Meeting

This section presents 4 selected case studies reported during the [Action Line C2 Facilitator`s Meeting](#), held on 5<sup>th</sup> May, in the framework of the WSIS Forum 2016.

##### a. Infrastructure Investment

##### *ITU Interactive Transmission Maps*

The [Interactive Transmission Map programme](#) is the result of a multi-stakeholder engagement to bring to life a unique global mapping platform that takes stock of national backbone

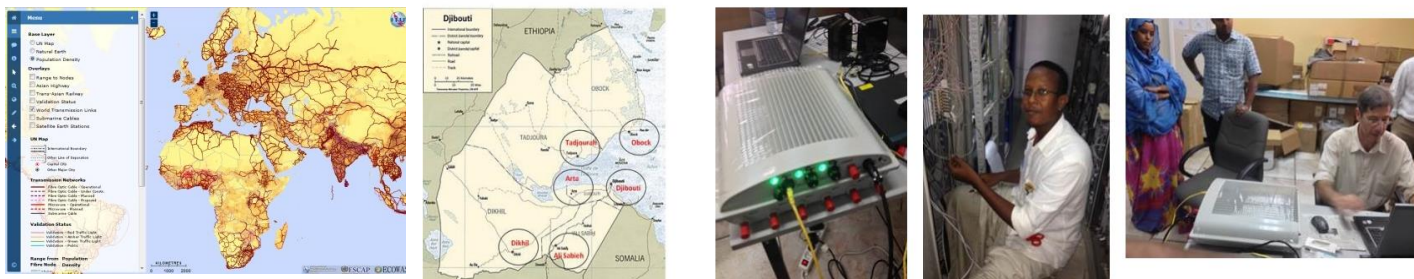




connectivity (optical fibers, microwaves and satellite Earth stations) as well as of other key metrics of the ICT sector.

#### ITU-McCaw Foundation Broadband Wireless Network Project for Africa

As a follow-up to the Connect Africa Summit, ITU is implementing broadband wireless networks and developing ICT applications to provide free or low cost digital access for schools and hospitals, and for underserved populations in rural and remote areas. Case Study: The implementation of Wireless Broadband networks in Djibouti has contributed to the improvement and efficiency of the healthcare system. Under this platform and based on



analyses of the issues involved, a plan of action for electronic health (E-health) has been developed.

#### b. Asia-Pacific Information Superhighway (AP-IS) towards affordable and inclusive broadband access for SDGs (ESCAP)

ESCAP analyses show that the phenomenal broadband expansion is unevenly distributed across Asia-Pacific: 72 per cent of the fixed broadband subscribers reside in North and Northeast Asia, followed by 11 per cent in Southeast Asia and 7 per cent in South and South-West Asia, among other gaps. In this context, the Asia-Pacific Information Superhighway (AP-IS) aims to develop seamless broadband connectivity, create the enabling Internet ecosystem and develop the digital economy in the region. AP-IS focuses on missing physical links, internet and network management, e-resilience and the digital divide for the purpose of increasing affordability, availability, reliability and inclusiveness of broadband access in Asia and the Pacific.

#### c. Connected world – for all (Nokia)

The tremendous potential of the rise of IoT which will enable also better healthcare, improved agricultural production and positive impact on the environment (e.g. traffic sensors) is raising the bar yet on the need to work on the reach to other sectors. As such, governments must take a wider look at their policy situation to ensure they do not only focus on ICT, but also look at policies in other sectors to ensure that IoT use-cases and digitalization are enabled and not



constrained by outdated regulation. Those who move fast will gain a first-mover advantage in accelerating growth via ICTs Industry on its part invests in innovative technologies to help deliver broadband connectivity to the home in hard-to-reach areas: for example Nokia launched *FastMile*

d. Policies and Implementation Frameworks that help to Accelerate Roll out and Uptake of Mobile Broadband in Developing Countries (Qualcomm)

How do we extend mobile broadband coverage and uptake to unserved/underserved communities, in a sustainable way, and consequently enable internet access to new users? The answer requires a comprehensive examination of challenges and solutions and in finding sustainable economic models that get a much larger portion of the world using broadband. Conversations must continue over time, resulting in evolution of innovative solutions.

### Action Line C4: Capacity Building

Action Line C4 focuses on capacity building. This action line is built around the fact that every individual and every community should have the necessary knowledge and skills to fully leverage the benefits of ICTs. It recognises that having infrastructure, services, and access to ICTs is of no use unless people have the knowledge and the skills to use those ICT services. In this respect, capacity building is a source of empowerment to people and communities, and is an essential element towards creating an inclusive information society. The ITU mission to connect the world would therefore not be complete until all the people that are connected have the skills required to leverage the ICT tools for their benefit.

The focus on capacity building is becoming more necessary as the global economy is going digital, and almost every aspect of human life today is becoming digitalized. This digital economy demands a digitally skilled workforce with skills that can be acquired through both formal and non-formal education and training. It is therefore important to place emphasis on creating a critical mass of qualified and skilled ICT professionals and experts which will contribute immensely to the attainment of the recently adopted Sustainable Development Goals.



Capacity building is cross cutting. It is a necessary component in the effective implementation of activities undertaken towards achieving each of the 17 Sustainable Development Goals (SDG's). However, capacity building has a very strong affinity with SDG 4, which is on ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all. This means that any form of education and training, whether formal or non-formal, taken in the course of the implementation of other SDG goals, is part of the process of capacity building. The knowledge and training acquired through learning, is important for development of national ICT policies and strategies, as well as successful implementation of national programs.

The proliferation of ICT applications and services, has generated a need for capacity building to ensure that as many people as possible are able to use these ICTs applications. Sectors such as education, health, commerce, government, agriculture, have applications that have a transformative impact on people's lives. These applications contribute to development by enabling access to and exchange of information and services anywhere and anytime, and to that extent, they contribute to and support the attainment of some of the SDGs. However, to ensure that there is effective use of these applications, most e-application initiatives have a capacity building component to impart to people the knowledge and skills to use these applications. This need to leverage e-applications has shifted the capacity building focus towards e-readiness, which is about the ability of a nation/economy's consumers, businesses and governments to use ICT to their benefit.

From WSIS 2016, Action Line C4 on capacity building introduces a theme on "Transcending from Infrastructure to Applications". This theme focuses on e-applications and the critical capacity building factors and imperatives that will enable people to adopt, use and benefit from different applications. The theme will run as a series looking at one specific e-application for each year.

The focus for 2016 is on eHealth applications. The theme was chosen to launch the series because of the importance of health to human life. Recent epidemics such as ebola, chikungunya, zika virus, have also attracted global attention, and eHealth applications have been key in dealing



with these global health threats. Capacity building has been at the centre of awareness raising and knowledge dissemination.

Capacity building ICT is therefore a necessary condition for human development, and the attainment of SDGs.

### **Action Line C5. Building confidence and security in the use of ICTs**

The adoption of the Sustainable Development Goals (SDGs) in September 2015 sets the tone for a new dynamic beginning in the global development efforts, taking stock of what has been achieved so far and incorporating new aspects and elements into the 17 goals and 169 targets.

Following the tremendous growth and expansion of Information and Communication Technologies (ICTs) in the past 15 years, their importance was clearly recognized in various goals including Goal 9.c " Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020".

With ICTs increasingly underpinning most- if not all- human activities, it becomes obvious that the role of the global community goes beyond ensuring mere access to information technology. In the Post-2015 era, ICTs are expected to have an enabling role in all aspects of socioeconomic development. Such development would however not be sustainable without providing the necessary safeguards, based on which nations could benefit and thrive.



The WSIS-SDG Matrix elaborates further on areas of the adopted framework, where security in the use of ICTs could foster and accelerate implementation. These include inter alia access to electronic financial services (1.4), access to online information as part of education (4.1, 4.3, 4.5), empowerment of women through ICTs (5b), development of resilient infrastructure and sustainable economic growth (7.1, 7a, 7b, 8.1, 9.1), transition to Smart Cities (11.3, 11b), and end of child violence and exploitation, especially in the online world (16.2).

ITU as the sole facilitator for Action Line C5 adopted its Global Cybersecurity Agenda (GCA) in 2007, which has been guiding its work ever since. The GCA takes a holistic approach building on five strategic pillars: Legal Measures, Technical & Procedural Measures, Organizational Structures, Capacity Building and International Cooperation.

The following are some examples from the ITU's work:

a. Child Online Protection (COP) Initiative<sup>3</sup>

ITU launched the **Child Online Protection (COP) Initiative** in November 2008 as a multi-stakeholder effort within the Global Cybersecurity Agenda (GCA) framework. The initiative brings together partners from all sectors of the global community to create a safe and empowering online experience for children around the world. In cooperation with diverse stakeholders, ITU has been providing guidance and building capacity in various countries - involving policy makers, parents, educators and children. For example:

- The COP Initiative supports countries in the implementation of **COP National Strategy Frameworks** and organizes strategic events at regional and global level to support these processes.

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<sup>3</sup> For more information, please visit: <http://www.itu.int/en/cop>





- The **COP Challenge** programme organized by ITU and its partners seeks to address the issue of educating children through an interactive platform.
- ITU and its partners have further developed four sets of **Guidelines for Children, Parents & Educators, Industry and Policy makers**, aiming to create awareness on the risks involved in the use of ICTs by children and suggest ways, in which each of the respective groups could contribute to reducing their negative impact<sup>4</sup>.

b. ITU-D's National CIRT Programme<sup>5</sup>



ITU's National CIRT Programme is helping countries build their national capacity in responding to cyber-attacks and protecting their national critical infrastructure from cyber-threats. ITU provides assistance to its Member States in three stages:

Assessment of cybersecurity readiness, Implementation of Computer Incident Response Teams (CIRTs) and organization of Cyber-exercises (Cyber-drills).

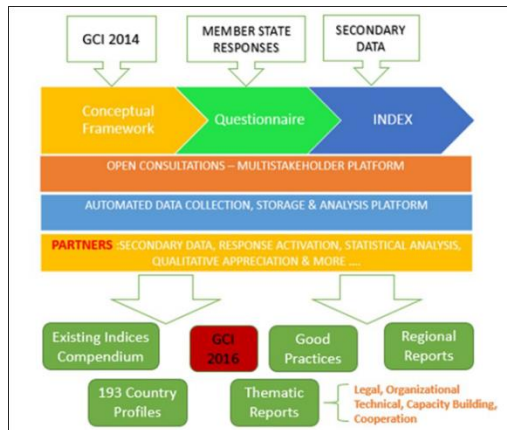
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<sup>4</sup> For more information, please visit: <http://www.itu.int/en/cop/Pages/guidelines.aspx>

<sup>5</sup> For more information, please visit: <http://www.itu.int/en/ITU-D/Cybersecurity/Pages/Organizational-Structures.aspx>



#### c. Global Cybersecurity Index (GCI)<sup>6</sup>



The Global Cybersecurity Index (GCI) is a multi-stakeholder initiative to measure the commitment of countries to cybersecurity within five categories: Legal Measures, Technical Measures, Organizational Measures, Capacity Building and Cooperation. A first version was launched in 2014. Work is ongoing on the second version of the GCI (called GCI 2016).

#### d. National Cybersecurity Strategy (NCS) Initiative<sup>7</sup>



The NCS initiative to co-author a functional toolkit to help governments develop and improve their Cybersecurity strategies has seen the consolidation of a partnership of 12 key players. A partners' workshop was held at ITU in February 2016 to review the first draft of the reference guide and agree to the joint work plan to complete the publication of the toolkit.

#### e. Cybersecurity Technical Standards<sup>8</sup>

<sup>6</sup> For more information, please visit: <http://www.itu.int/en/ITU-D/Cybersecurity/Pages/GCI.aspx>

<sup>7</sup> For more information, please visit: <http://www.itu.int/en/ITU-D/Cybersecurity/Pages/National-Strategies.aspx>

<sup>8</sup> For more information, please visit: <http://www.itu.int/en/ITU-T/about/groups/Pages/sg17.aspx>



The ITU Standardization Sector through its Study Group 17 “Security” has produced over 330 Recommendations (Standards) in the area of cybersecurity, anti-spam, identity management, X.509 certificates, information security management, ubiquitous sensors networks, telebiometrics, IPTV security, virtualization security towards cloud computing security, and security architecture and application security, often in cooperation with external SDOs and Consortia.

Within the framework of the 2030 Development Agenda, ITU as the facilitator of Action Line C5 will continue its work towards enhancing confidence and security in the use of ICTs. Considering the cross-cutting role of ICTs in the implementation of SDGs, it is deemed necessary for the ICT sector to join efforts with stakeholders from all targeted sectors (e.g. education, banking etc.), in order to maximize the results of the new Development Agenda. ITU is committed to intensify its efforts for an inclusive and meaningful international collaboration that would allow ICTs to meet their full potential in the new era.

### **Action Line C6: Enabling environment**

Recognizing that the fundamental goal of fostering the availability and use of technology to improve people’s lives and bridge the digital divide, Action Line C6 – enabling environment - is a cross-cutting and fundamental tool to enable all countries and stakeholders to benefit from universal access to information and knowledge. By building the enabling environment for ICTs, not only can the achievement of the SDGs be facilitated, but ideas and innovation can thrive, markets can develop, partnerships can be enhanced and knowledge platforms leveraged and expanded so that they may become more effective and efficient in an interconnected world.

Recognizing the strong commitment of ITU’s work towards bridging the digital divide in the area of the enabling environment, UNDP officially handed over the lead facilitation role on WSIS Action Line C6 Enabling Environment to the ITU in May 2008. Since then, ITU has been acting as the sole facilitator for this Action Line building upon its regular work carried out within the framework of the ITU-D Programme 3: Enabling Environment.



As facilitator for this Action Line C6, ITU builds upon its regular work carried out within the framework of the ITU-D Programme 3: Enabling Environment. Within this context, ITU assists Member States and Sector Members in developing a pro-competitive policy and regulatory framework for telecommunications/ICTs. We undertake numerous activities including information sharing, global and regional research and analysis on the latest policy, regulatory, economic financial and market trends in telecommunications/ICTs, the creation of tools for effective regulation, national and regional assistance, and the creation of training materials and opportunities. Various thematic studies provide valuable viewpoints and strategies on multiple issues that affect regulation and economics in a converged broadband world. For example, the [16th edition of Trends in Telecommunication Reform](#) features an in-depth analysis of current market and regulatory trends based on ITU data from one of the world's most comprehensive data platforms, the ICT Eye. This regulatory report brings together insights from a broad range of leading global experts to help regulators, ICT analysts and tech journalists gain a deeper understanding of the issues facing an increasingly broad array of ICT players – and consumers. It charts and analyzes the challenges and opportunities facing today's ICT regulators as services proliferate, platforms converge and network operators ready their infrastructure for the next round of data-intensive technologies, from 5G mobile to the Internet of Things (IoT).

The [ICT Regulatory Tracker](#) was built as a tool to monitor and measure the changes taking place in the telecommunication/ ICT regulatory environment, and covers over 150 countries for a period of 11 years, showcasing regulatory progress within the same country, amongst regions and worldwide. A variety of traditional and new subjects is included in the Tracker and are allocated into four clusters overlooking the telecommunication/ICTs regulatory environment: regulatory authority, regulatory mandate, regulatory regime and competition framework.

The annual flagship event, the [Global Symposium for Regulators](#) will take place in Sharm el Sheik, Egypt from 11 to 14 May 2016, under the Theme Be Empowered, Be Included! Building Blocks for Smart Societies in a Connected World, with 11 May being reserved for pre-events. They



include a Thematic Pre-Conference for a Global Dialogue on Digital Financial Inclusion with the support of the Bill & Melinda Gates Foundation and in collaboration with other partners. The Regional Regulatory Associations Meeting and Private Sector Chief Regulatory Officers Meeting will also be held on 11 May.

In order to increase enhanced dialogue and knowledge between national regulators, policy-makers and other Telecommunication/ICT stakeholders on regulatory, economic and financial issues in all regions, ITU is carrying out a number of activities, including regional economic and financial fora, that focused, among other interesting subjects, on the future of global telecommunications in view of the growth of OTT services; Mobile Money (MM) services and digital financial inclusion; relevant market definition and significant market power (SMP); approaches and best practices for Broadband costing and pricing as well as issues pertaining to International Mobile Roaming.

ITU is also undertaking several activities within its mobile roaming initiative [LET'S ROAM THE WORLD](#), which aims to support Members in the definition and adaptation of best practices and guidelines for all stakeholders around the world on IMR. In addition, the ITU Intersectoral International Mobile Roaming (IMR) Resources web portal consolidates in one portal all ITU activities on IMR, and lists activities by other regional and international organizations, as well as updated information on the initiatives at national, bilateral, regional and international level.

ITU is also actively supporting implementation of enabling environment frameworks to promote ICT accessibility for persons with disabilities in line with Output 4.3 of the 2014 World Telecommunication Development Conference and Connect 2020 Target 2.5B. ITU continues to develop standards in ITU-T study groups(SGs) to promote accessible ICT technologies: ITU-T SG16 has 17 ongoing work items on accessibility, including: accessibility terms and definitions, Guidelines for accessible meetings, Accessibility features for mobile media devices; Requirements for captioning and audio description for accessibility; Application layer information specification at the terminal to network interface for people with hearing and speaking





difficulties to request rescue to emergency rescue agencies, Guidelines for supporting remote participation in meetings for all, etc. ITU-T SG2 has two ongoing work items on human factors, namely 'User interface for face-to-face speech translation considering human factors' and 'On-screen keyboards for ICT devices'. The ITU Inter-sector Rapporteur Group on Audio-visual Media Accessibility studies topics related to audio-visual media accessibility for all media delivery systems including broadcast, cable, Internet, and IPTV.

ITU provides support, assistance and training to developing countries in bridging the standardization gap on ICT technologies. ITU-T has 13 active Regional Groups which have been proven to be a very effective mechanism in stimulating effective participation in ITU-T Study Groups and increasing the number of quality Contributions from the various regions - five in Africa, three in the Americas, three in the Arab region, and two in the APT region.

The new Focus Group on Digital Financial Services aims to address a series of critical issues currently preventing digital financial services from reaching unbanked or under-banked populations. The Focus Group is developing a standardization roadmap for interoperable mobile money services and best practices to support national policy-makers and regulatory authorities in their efforts to encourage the adoption and use of these services.

In terms of the way forward, creating an enabling environment in which ICTs – which are the foundation upon which social and economic development can thrive – remains essential. Both holistic and targeted ICT policies and regulations can contribute to reducing barriers to access and connectivity and benefit all sector and contribute to the achievement of the Sustainable Development Goals, and in particular Goal 9.c: Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020

But it does not stop there. ICT regulatory policies can also help improve the long term interests of citizens by improving and enabling education, information, and increased efficiency. They can



reduce costs, overcome distance, open up markets, enhance understanding and create employment. They can contribute to science, technology and innovation, and empower women and girls, and can help reduce inequality within and amongst countries.

### **Action Line C7: ICT Applications:**

- **E-government**

Governments have the primary responsibility for following-up and reviewing progress in implementing the SDGs at the national, regional and global levels. Effective rule of law, good governance at all levels, and transparent, effective and accountable institutions are all key factors for realizing the SDGs and creating peaceful, just and inclusive societies based on respect for human rights, including the right to development, in a fair and equitable manner. E-government is one driver of institutional development and transformation in the modern age and has an important role in the applications exploring innovative ways to best leverage ICTs in the public sector for achieving the SDGs.

The use of ICTs in the public sector and e-government can help ensure a participatory approach by creating structures for communication and collaboration, strengthening decision-making among various agencies, key stakeholders, international organizations, NGOs, the private sector



and civil society. It also enables public access to information and helps to protect fundamental freedoms, in accordance with national legislations and international agreements.

Expansion of e-government services can also be a driver of demand for ICT, as well as a provider of affordable access. For example, shared public kiosks provide direct access to services while intermediary service providers do so indirectly. This expansion can increase access to ICT and contribute to the target of providing universal and affordable access to the Internet in least developed countries by 2020.

#### Case Study: United Nations E-Government Survey

One important instrument for monitoring the implementation of the Action Line C7 (e-government) at the global level is the United Nations E-Government Survey, which presents a systematic assessment of the use and potential of ICTs to transform the public sector by enhancing efficiency, effectiveness, transparency, accountability, access to public services and citizen participation. By studying broad patterns of e-government around the world, the Survey assesses the e-government development status of the 193 United Nations Member States. It serves as a tool for decision-makers to identify their areas of strength and challenges in e-government to inform policies and strategies.

The 2016 Survey entitled “E-Government for Sustainable Development” will highlight emerging e-government issues and trends, and identify challenges and opportunities of e-government as an enabler of good governance for sustainable development. Its overall objective is to provide policy-relevant analysis of how governments can utilize new technologies in public administration to increase the impact of sustainable development efforts. In particular, the report will offer suggestions on how to utilize ICTs to enable coherent policy frameworks and institutional coordination; promote transparent and accountable institutions through open government data, establish innovative mechanisms to engage people through e-participation, and respond to the challenges of providing inclusive and equitable services. In order to allow a



more inclusive, open and participatory approach in the design of the United Nations E-Government Survey; and in response to requests from Member States to have a greater role in enhancing the Survey and its methodology the United Nations Department of Economic and Social Affairs (UNDESA) conducted open consultations as part of the preparatory process for the 2016 edition from both online and offline channels in order to obtain feedback and suggestions from the respective stakeholders.



For more information, please visit: <http://www.publicadministration.un.org/egovkb>

- **E-environment**

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

**9.4** By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

The link with Goal 9 and its target 9.4 and the WSIS+10 Outcome, on Further Enhancing Action lines, C7-AL e-environment:

a. Foster cooperation between the ICT community, the environmental community, the meteorological community, and other relevant communities working on reducing energy consumption and greenhouse gas emissions, environment protection, towards safety of population and assets against increasing threat caused by climate change related impacts.

**Goal 11:** Make cities and human settlements inclusive, safe, resilient and sustainable

**11.6** By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management



11.b By 2020, increase by [x] per cent the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, develop and implement, in line with the forthcoming Hyogo Framework, holistic disaster risk management at all levels

The link with Goal 11 and its targets 11.6 and 11.b with the WSIS+10 Outcome, on Further Enhancing Action lines,C7-AL e-environment:

b. Minimize e-waste by establishing appropriate measures such as environmentally sound life cycle management processes of ICT equipment by all involved parties, including manufacturers.

Examples: [UNEP/BC e-Waste](#)

[ITU – e-Waste](#)

d. Promote the use of ICT equipment in weather forecasting electronic dissemination and early warning systems to increase preparedness against natural hydro meteorological related disasters.

Example: [Early Warning in Uganda](#)

**Goal 13:** Take urgent action to combat climate change and its impacts\*

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries



13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women, youth and local and marginalized communities

The link with goal 13 and its targets 13.1 and 13.3, 13.b with the WSIS+10 Outcome, on Further Enhancing Action lines,C7-AL e-environment:

e. Raise awareness on the need for international cooperation to assist nations in particular developing and least developed nations, and Small Island Developing states to benefit from a full





range of ICT – weather/climate related monitoring and warning services including access to satellite data , high speed internet and smart ICT weather and climate applications.

Example: [WMO Climate Data and Related Products](#) & [WMO Statement](#)

**Goal 14:** Conserve and sustainably use the oceans, seas and marine resources for sustainable development

**Goal 15:** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

The link to Goal 14 and 15 with the WSIS+10 Outcome, Further Enhancing Action lines,C7-AL e-environment:

f. Encourage establishing and maintaining networks of automated observing systems for the collection and dissemination of essential weather and climate parameters, to be made available to the global community in support of environmental monitoring.

- **E-agriculture**

E-agriculture aims to support the implementation of the 2030 Agenda, throughout all of the 17 SDGs. Food and Agriculture lies at the very heart of the 2030 Agenda for sustainable development, from ending poverty and hunger to responding to climate change and sustaining our natural resources. The E-Agriculture Action Line will therefore go beyond the implementation of the agriculture specific goal: SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

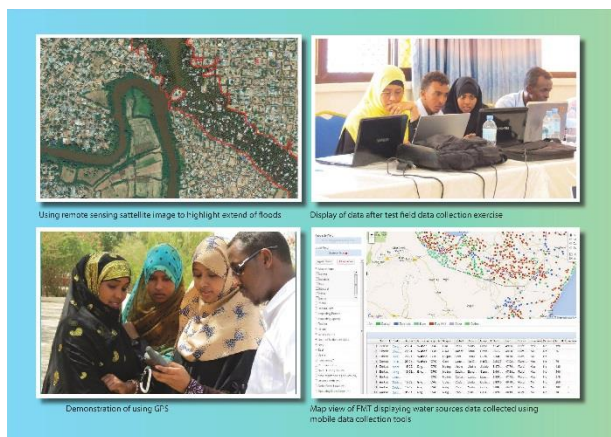
The SDGs are part of a transformative agenda and offer new opportunities in the way the Action Lines can work. The new agenda is universal (relevant to all nations and adaptable to different contexts) and the 17 goals and 169 targets are linked laterally, with the three dimensions (social, economic and environmental) of sustainable development integrated everywhere. These aspects encourage Action Lines to further strengthen their collaboration and exchanges.

During the WSIS Forum 2016 the e-health and e-agriculture action lines organized a joint session on the common theme of nutrition. Nutrition is one example of how joint cross-sectoral work can address a development challenge in a more holistic and comprehensive manner. For example, ICTs can play an important role for the traceability of food all along the value chain; they are also important in monitoring pest and diseases, they offer the possibility to have access to knowledge



through platforms such as Reasearh4life and learning through eLearning platform such as the eLearning centre of FAO. Action Lines and sectors face many common challenges and share needs. Coordination of efforts and working together is key to accelerate the impact of the use of ICTs by avoiding duplication of efforts and investments. The interconnected nature of the SDGs is implicitly calling for more consolidated and inter-sectoral work using ICT as a cross-cutting enabler and a sharable resource.

Whereas the MDGs were coordinated by the UN Secretariat, the SDGs were negotiated by UN Member States over a period of three years with broad multi-stakeholder consultation. Country ownership of the 2030 Agenda and the implementation of the SDGs and the efforts of the Action Lines will therefore be another important aspect of the way of working. The two co-facilitators of the e-agriculture Action Line have already been working together to foster the development and implementation of national e-agriculture strategies with a strong focus on providing reliable and affordable connectivity and integrating rural development to support food security and hunger eradication. FAO and ITU will continue to support the country driven process of developing and implementing national e-agriculture strategies. The strategies will also help to rationalize resources and address holistically ICT opportunities and challenges for the agricultural sector and beyond. The existence of country driven strategies will prevent projects to be implemented in isolation without connection and integration.



The e-agriculture Action Line will also continue fostering collaboration and knowledge sharing through electronic communities of practice, such as the e-Agriculture Community of Practice, in order to showcase and promote models, methodologies, good practices and the adoption of Open Access and interoperability standards, for effective and equitable use of ICTs for sustainable agriculture and rural development.

An important role is also to promote the use of ICTs to reinforce the resilience capacity of states, communities and individuals to mitigate and adapt to natural and man-made disasters, food chain challenges, socio-economic and other crises, conflicts and transboundary threats, diseases and environmental damages in collaboration with other relevant Action Lines.

Case study: Somalia Water and Land Information Management project (SWALIM)



Food and Agriculture Organization of the United Nations (FAO), Somalia.

A web-enabled data platform to improve information management of water sources;

A set of land and water data collection tools for low-cost smartphones;

A remote monitoring system to observe large swathes of territory;

A mobilephone-based early warning flood system for vulnerable communities.

These are some key components of an innovative programme aimed at using ICTs to manage land and water resources in Somalia.

The Somalia Water and Land Information Management project (SWALIM) is one of the few UN development programmes to have information management as its primary mission, using technologies such as Geographic Information Systems (GIS), remote sensing and data collection with mobile devices and modern web applications. Managed by the Food and Agriculture Organization of the United Nations (FAO), SWALIM has been able to successfully introduce various technological innovations to benefit communities dependent on fragile land and water resources, despite the extremely challenging environment of Somalia.

Since its launch in 2001, SWALIM has sought to use ICTs to achieve its objectives, introducing innovative approaches and methods adapted to the particular environment in which it operates. As the programme has developed, managers have taken special care to ensure that the initiative makes full use of cutting-edge technologies as they emerge. As a result, SWALIM has become the primary source of reliable information on land and water resources in Somalia, serving as a basis for increased food security through sustainable agriculture.

From the outset, SWALIM has empowered Somali institutions to achieve self-sufficiency in generating and managing natural resource information. The provision of training and capacity development are considered critical components, making the programme a participatory initiative that will one day be owned and managed by the people it serves.



## Action Line C11: International and regional cooperation

Case Study: Internet Governance Forum (IGF) - The Global Multistakeholder Forum for Dialogue on Internet Governance Issues

International cooperation among all stakeholders is vital in implementation of WSIS action lines and the Sustainable Development Goals (SDGs). As stated by the General Assembly in the WSIS+10 outcome document, the value and principles of multi-stakeholder cooperation and engagement that have characterized the WSIS processes since its inception have been and are vital in developing the information society.

Cooperation is particularly needed in promoting universal access and bridging the digital divide as stated in the Geneva Plan of Action. There are still significant digital divides within and between countries. The lives of the majority of the world's people remain largely untouched by the digital revolution, only around 15 percent can afford access to broadband internet. Mobile phones, reaching almost four-fifths of the world's people, provide the main form of internet access in developing countries. But even then, nearly 2 billion people do not own a mobile phone, and nearly 60 percent of the world's population has no access to the internet. These divides need to be addressed through strengthened enabling policy environments and international cooperation to improve affordability, access, education, capacity-building, multilingualism, cultural preservation, investment and appropriate financing.

There is also need for strengthened cooperation international and regional cooperation against threats that may hinder the further development of information society. More efforts are needed to build robust domestic security in ICTs consistent with countries' international obligations and domestic law. Further cooperation is also needed on transnational issues regarding ICTs, including capacity-building and cooperation in preventing and combating the misuse of the technologies for criminal or terrorist purposes.



Internet governance was one of the most sensitive issues at the World Summit on the Information Society (WSIS) held in Geneva, 2003, and in Tunis, 2005. Cognizant of the fact that any Internet governance approach should be inclusive and responsive, the WSIS requested the Secretary-General of the United Nations to convene a new forum for multi-stakeholder policy dialogue. As a platform for discussions, the Internet Governance Forum (IGF) brings various stakeholder groups to the table as equals to exchange information and share good practices.

The outcome document of the General Assembly High-level Meeting on the overall review of the outcomes of the World Summit on the Information Society (WSIS+10)<sup>9</sup>, acknowledged the role of the IGF as a multi-stakeholder platform for discussion of Internet governance issues and extended for another 10 years the existing mandate of the Internet Governance Forum as set out in paragraphs 72 to 78 of the Tunis Agenda.

The 2016 IGF 'Enabling Inclusive and Sustainable Growth', is tentatively scheduled to take place from 6 to 9 December 2016 in Guadalajara, Mexico. The IGF will also support the global effort to achieve the SDGs, many of which relate in one way or another to Internet and ICTs.



For more information, please visit: <http://www.intgovforum.org>

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<sup>9</sup> <http://workspace.unpan.org/sites/Internet/Documents/UNPAN96078.pdf>