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| **Telecommunication Development Advisory Group (TDAG)**  **24th Meeting, Geneva, 3-5 April 2019** | C:\Users\comas\AppData\Local\Temp\Rar$DRa0.735\jpg\ITU official logo_blue_RGB.jpg |
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| Cybersecurity and ICT Applications activities | |
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| **Summary:**  This report summarizes the Cybersecurity and ICT Applications activities as two of the outputs and goals adopted at the World Telecommunication Development Conference in 2017 (WTDC-17) and confirmed by the Plenipotentiary Conference in 2018 (PP-18), respectively.  Considering results-based management and actions, this report provides an update on cybersecurity and ICT Applications objectives and implementation strategies, the key activities already undertaken and planned, and the ways forward to implement the cybersecurity related objectives.  **Action required:**  TDAG is invited to note this document and provide guidance as deemed appropriate.  **References:**  Buenos Aires Declaration of WTDC-17; WTDC Resolutions 30 (Rev. Buenos Aires, 2017), 37 (Rev. Buenos Aires, 2017), 45 (Rev. Buenos Aires, 2017), 67 (Rev. Buenos Aires, 2017), 69 (Rev. Buenos Aires, 2017); 77 (Rev. Buenos Aires, 2017), 80 (Rev. Buenos Aires, 2017), PP Resolution 130 (Rev. Dubai, 2018), 139 (Rev. Dubai, 2018), 179 (Rev. Dubai, 2018), 197 (Rev. Dubai, 2018) and 201 (Rev. Dubai, 2018) | |

1. **Cybersecurity**
   1. **Background**

Cybersecurity has been recognized as one of the important goals of ITU Membership at the World Telecommunication Development Conferences and the Plenipotentiary Conferences throughout the years.

Further to WTDC-17, the main objectives of ITU-D in its Cybersecurity mandate is to provide products and services for building confidence and security in using telecommunications/ICTs, such as reports and publications, and for contributing to implementing national and global initiatives.

Output D 2.2 of the Buenos Aires Action Plan (BaAP) specifies expectations on how to deliver on the cybersecurity-related objectives of WTDC-17, namely through:

* Strengthening capacity of Member States to share information, find solutions, and respond to cybersecurity threats;
* Development and implementation of national strategies and capabilities;
* Human and institutional capacity building;
* Encouraging national, regional and international cooperation towards enhanced engagement among Member States and relevant stakeholders;
* Establishment of new partnerships; and
* Other required activities to implement the objectives related to cybersecurity.
  1. **Key Activities and Results**

ITU-D’s cybersecurity programme implements activities such as developing publications, conducting national and regional capacity building workshops and collaborates with partners to deliver high quality products and services. Since the last TDAG meeting, BDT has established several new partnerships to assist in the development, facilitation and implementation of projects, and sharing knowledge and information on the related topics in consultation with the Membership and concerned key stakeholders. BDT also coordinates activities with other ITU Sectors and partners to accelerate the implementation of activities and the undertaking of initiatives focused on specific key challenges with concerned stakeholders related to cybersecurity.

* + 1. **Cybersecurity Strategy Development and Review**

A [National Cybersecurity Strategy Guide](https://www.itu.int/dms_pub/itu-d/opb/str/D-STR-CYB_GUIDE.01-2018-PDF-E.pdf) launched officially at ITU Telecom World 2018 carries a multi-stakeholder effort facilitated by ITU and in partnership with 11 entities which are either intergovernmental and international organizations, private sector, academia or civil society. The main goal of this guide is to assist countries in the development and implementation of national cybersecurity strategies including cyber-preparedness and resilience. It is a reference guide that represents a comprehensive one-stop resource for countries to gain a clear understanding of the purpose and content of a national cybersecurity strategy, and actionable guidance for how to develop a strategy of their own.

* + 1. **CIRT Assistance Programme**

Around its [CIRT Programme](https://www.itu.int/en/ITU-D/Cybersecurity/Pages/national-CIRT.aspx), BDT executes several activities that provide specific results at different stages:

* CIRT Readiness Assessment – the purpose of this activity is to review the current situation in countries which have expressed interest to implement a CIRT and provide a report that provides outlines;
* CIRT Design - the purpose of this activity is to provide a CIRT design document;
* CIRT Implementation – Basic and Enhanced Services.

Until now ITU has conducted 75 CIRT readiness assessments and successfully implemented thirteen (13) CIRT Projects. For 2019, five (5) national CIRTs are planned to be implemented.

* + 1. **Measuring Cybersecurity Progress –** [**The Global Cybersecurity Index**](https://www.itu.int/en/ITU-D/Cybersecurity/Pages/global-cybersecurity-index.aspx)

In 2018, the data has been collected from 155 countries to prepare the third edition of the Global Cybersecurity Index. GCI measures countries' progress in the area of cybersecurity and helps them to identify areas for improvement. Through the information collected, GCI aims to illustrate the practices in use so that ITU Member States can identify gaps and improve in the areas they lack.

* + 1. **Cybersecurity Exercises (**[**CyberDrills**](https://www.itu.int/en/ITU-D/Cybersecurity/Pages/cyberdrills.aspx)**) - Capacity and Capability Development**

ITU conducts regional and national CyberDrills for ITU Member States. The aim of CyberDrills is to enhance the communication between participating teams’ and further improve the incident response capabilities, along with maintaining and strengthening national and international cooperation among countries in ensuring continued collective effort against cyber threats. ITU has conducted twenty-five (25) CyberDrills involving more than 100 countries. In 2019, drills are planned to be conducted in Europe (Romania), and Africa (South Africa). Drills are also planned for Asia-Pacific , Arab States and CIS. BDT is exploring the opportunity to do cross regional cooperation between two regions, developing further regional and international cooperation. Exercises are executed jointly with different partners, depending on the region.

* + 1. **Awareness Creation and Information Sharing**

BDT continuously organizes, co-organizes and participates in activities that foster awareness creation and information sharing. Through various platforms and events, BDT and partners create awareness and share information such as WSIS, Study Group Meetings, and other workshops, conferences and meetings. More information about past events can be found here: [events page](https://www.itu.int/en/ITU-D/Cybersecurity/Pages/cybersecurity-events.aspx).

* + 1. **Global Partnership Development and Collaboration**

ITU puts very strong emphasis on global cooperation and on development of strategic partnerships in the areas of cybersecurity. ITU facilitates beneficial synergies and maintains valuable global partnerships to enhance cybersecurity and promote a need for a safe digital environment for all. Recently ITU has concluded partnerships with WEF and Interpol among others.

ITU Cybersecurity Development partners are grouped in:

* Intergovernmental Organizations – examples: UNICRI, UNODC, The Commonwealth, CTO, EC, ENISA, etc.;
* International Organizations – FIRST, ISOC, WEF, GFCE, MERIDIAN, etc.;
* Private Sector – Deloitte, Guardtime, Microsoft, HP, Symantec, High-Tech Bridge, Kaspersky, etc.;
* NGOs, Civil Society, Academia, Philanthropies – Indiana University, Potomac Institute for Policy Studies, Australian Strategic Policy Institute, Geneva Center for Security Policy, etc.;
* Government or Public Sector affiliated – KISA (Korea Internet and Security Agency), NTRA Egypt, etc.
  1. **Way Forward**

BDT will continue to strengthen activities in the area of cybersecurity by further enhancing deliverables in areas such as:

* Continue providing technical assistance to Member States through innovation and new productive partnerships;
* Enhance delivery of projects and activities related to human and institutional capacity building;
* Focus on delivering high impact-based projects and initiatives, such as National CIRT programme activities, development and review national cybersecurity policies, etc.;
* Continue measuring cybersecurity progress with the Global Cybersecurity Index while improving the methodology and scoring mechanism through continuous dialogue and collaboration with Member States, industry, academia and experts in the area of cybersecurity and data analysis;
* Continue following cybersecurity trends and development in the area of telecommunication/ICT; such as AI/ML, BigData, IoT, 5G, eSIM, etc.

1. **ICT applications**
   1. **Background**

ITU Membership at both the World Telecommunication Development Conferences (WTDC-14 and WTDC-17) and the Plenipotentiary Conferences (PP-14 and PP-18) recognized that Telecommunication/ICT and particularly mobile technology hold the most transformative power of our time. It has the capacity to connect even the most isolated communities to sources of information and services that can have direct impact on their livelihoods and quality of life.

In light of the continued relevance of the WSIS Action lines, as well as the adoption of the new Sustainable Development Goals, mainstreaming digital innovations in all sectors is unavoidable if we are to achieve those goals by 2030.

In accordance with WTDC-14 and WTDC-17, the main objectives of the ITU-D ICT Services and Applications programme are to support the ITU membership, in collaboration and partnership with other United Nations organizations and the private sector, in fostering the use of telecommunications/ICTs in the various facets of information-society development, in particular in underserved and rural areas, and for sustainable development and attaining the UN Sustainable Development Goals (SDGs) and implementing the World Summit on the Information Society (WSIS) Action Lines.

The programme aims at delivering products and services on telecommunication/ICT policies supporting the development of the Digital Economy, ICT applications and new technologies, such as information sharing and support for their deployment, assessment studies, and toolkits products and services on ICT applications (Output 4.2).

* 1. **Key Actions and Results**

In 2018, BDT conducted several key actions namely:

**Support the development of national strategic planning frameworks fostering the Digital Economy and associated toolkits**

One of the main pillars of the ICT Applications programme is to assist countries in developing their national sectoral e-strategies. Those national e-strategies provide essentially a blueprint and a roadmap for a sector digital transformation.

In the health sector, the joint ITU-WHO National eHealth Strategy guide published in 2012 became the reference in terms of digital health strategy development. It has been used by many countries all over the world and in almost all regions. In 2018, countries supported included Senegal, Benin, Madagascar, Niger, and Lesotho among others with the assistance of ITU and WHO.

In the agriculture sector, the ITU-FAO National e-Agriculture strategy guide has been already used in several countries such as Philippines, Sri Lanka, Bhutan, Fiji, Papua New Guinea. Benin, Caribbean countries, Pakistan and Afghanistan are in the process of using the guide with assistance from ITU and FAO.

In collaboration with UNESCO, BDT is conducting a Smart Learning Policy Review for Sudan.

In principle, those strategies provide the country with a comprehensive set of activities that are required to initiate and maintain the transformational process of the sectors (or across sectors) using digital tools.

In 2019, the ICT Applications programme will work with Papua New Guinea to develop an e-Government Master Plan using the newly developed “Digital Investments Framework for SDG” that was developed jointly with the “Digital Impact Alliance (DIAL)”.

**Support the deployment of ICT/mobile applications to improve the delivery of value added services in high-potential areas like e-health including mobile health, education, agriculture**

In addition, the ICT Applications programme is working with countries to support the “implementation” of those strategies by developing projects such as the development of a Blockchain-based applications for tracking Pigs in Papua New Guinea, launching several mHealth projects through the joint ITU-WHO joint programme on using mobile technologies for noncommunicable diseases (Be Healthy, Be Mobile), deploying Smart Villages in Niger, etc.  The programme also assist countries to develop the detailed technical implementation requirements such as in Lesotho to develop their national digital Health Enterprise Architecture and Interoperability Framework based on their National eHealth Strategy.

**Development of detailed studies and facilitate the sharing of knowledge and best practices**

In addition to supporting strategy development, other activities are geared towards building capacities for national leadership for digital health for example, a regional digital health capacity workshop in Lesotho in 2018 for 12 African countries. All the materials and content presented were recorded and will be placed on an online eLearning platform. Another Francophone workshop is planned in 2019.

Several knowledge sharing events were conducted, such as organizing a Health Track within the AI for Health Summit, A Hackathon for ending Hunger with FAO during WSIS Forum, e-Agriculture solutions Forum with FAO in China among others. A report on using Drones for Agriculture was also published in addition to serveral handbooks on using mobile health for Ageing, Tobacco Cessation, Cervical Cancer, Diabetes and Respiratory diseases with WHO.

* 1. **Way forward**

ICT Applications will continue to strengthen activities,including:

* Continue to build capacity on digital strategy development and solutions through national and regional capacity building workshops;
* Develop new tools to guide governments in their digital transformation process such as the development of Government Enterprise Architecture;
* Support the development of country plans and technical studies for sectoral and cross-sectoral digital transformation;
* Promote and advocate for cross-sectoral and whole-of-government approaches as efficient approaches for scaling up the adoption of digital tools.

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