

Telecommunication Development Sector

Implementation report
January – June 2018

Implementation of the:
Strategic plan
Operational plan
Financial plan



ITU-D Mission

To foster international cooperation and solidarity in the delivery of technical assistance and in the creation, development and improvement of telecommunication/information and communication technology (ICT) equipment and networks in developing countries. ITU-D is required to discharge the Union's dual responsibility as a United Nations specialized agency and executing agency for implementing projects under the United Nations development system or other funding arrangements, so as to facilitate and enhance telecommunication/ ICT development by offering, organizing and coordinating technical cooperation and assistance activities.

Goal

The strategic goal of the ITU Telecommunication Development Sector (ITU-D) is threefold, and includes:

- To promote the availability of infrastructure and foster an enabling environment for telecommunication/ICT infrastructure development and its use in a safe and secure manner
- To provide assistance to developing countries in bridging the digital divide by achieving broader telecommunication/ICT-enabled socio-economic development
- To expand the benefits of the information society to the membership in cooperation with public and private stakeholders, and to promote the integration of the use of telecommunications/ICTs into the broader economy and society as drivers of development, innovation, well-being, growth and productivity globally.

Objectives

Objectives 1:
Foster international cooperation on telecommunication/ICT development issues

Objective 2:
Foster an enabling environment for ICT development and foster the development of telecommunication/ICT networks as well as relevant applications and services, including bridging the standardization gap

Objective 3:
Enhance confidence and security in the use of telecommunications/ICTs, and roll-out of relevant applications and services

Objective 4:
Build human and institutional capacity, provide data and statistics, promote digital inclusion and provide concentrated assistance to countries in special need

Objective 5:
Enhance environmental protection, climate change mitigation and adaptation, and disaster management efforts through telecommunication/ICTs

Outputs

1.1 WTDC

1.2 Regional Preparatory Meetings (RPMs)

1.3 Telecommunication Development Advisory Group (TDAG)

1.4 Study Groups

2.1 Policy and regulatory frameworks

2.2 Telecommunications/ICT networks, including conformance and interoperability and BSG

2.3 Innovation and Partnership

3.1 Building confidence and security in the use of ICTs

3.2 ICT applications and services

4.1 Capacity building

4.2 Telecommunication/ICT statistics

4.3 Digital inclusion of people with specific needs

4.4 Concentrated assistance to LDCs, SIDSs and LLDCs

5.1 ICTs and Climate change adaptation and Mitigation

5.2 Emergency telecommunications

Activities

Creation of tools and guidelines

Handling of special needs

Project management and coordination

Financial, operational and strategic planning, control and reporting

Database and web site management

Documentation (preparation, writing and editing)

Assisting members and related tasks

Research and analysis

Sharing information and related tasks

Preparation and delivery of training

Overview of ITU-D Strategic and Operational Plan Implementation

The following is a summary of results achieved, for the period January to June 2018, on the overall implementation of the five objectives of the ITU-D Strategic and Operational Plan.



ITU's duties and responsibilities in the Telecommunication development sphere are consolidated in the Telecommunication Development Sector (ITU-D)



Five ITU-D Objectives

Objective 1

"Foster international cooperation on telecommunication/ICT development issues"

The results achieved during the period of January to June 2018 are as follows:

1.1 World Telecommunication Development Conference (WTDC)

- The next World Telecommunication Development Conference (WTDC) will be held in 2021. The final report of the World Telecommunication Development Conference 2017 (WTDC-17), convened in Buenos Aires, Argentina, from 9 to 20 October 2017, has been [made available](#).
- The BDT Management Retreat was held from 5 to 9 February 2018 in Geneva. Participants analyzed the current state of play in the ICT industry in the light of the outcomes of WTDC-17 and how the ITU Telecommunication Development Bureau (BDT) will fulfil its mandate in a rapidly changing, increasingly complex, and ever-more challenging environment. The key areas discussed during the retreat form the basis for a robust strategy and action plan for BDT to respond to the massive changes occurring in the industry while, at the same time, meeting the great expectations of members.

<i>WTDC</i>	<i>Resolutions 1, 2, 5, 30, 33, 37, 50, 53, 59, 81, 82</i>
<i>PP Resolutions</i>	<i>PP Decisions 5, 13 PP Resolutions 25, 71, 72, 77, 111, 131, 133, 135, 139, 140, 151, 154, 165, 167</i>
<i>Council</i>	<i>Resolution 1372</i>
<i>WSIS Action Line</i>	<i>WSIS Action Lines C1 and C11</i>
<i>Contributing to SDG Targets</i>	<i>SDGs: 1, 3, (target 3.d), 5, 10, 16 (targets 16.5, 16.6, 16.8), 17 (targets 17.9, 17.16, 17.17, 17.18, 17.19)</i>

1.2 Regional preparatory meetings (RPMs)

- The next Regional Preparatory Meetings (RPMs) will be held in 2020 and 2021.
- With the aim of facilitating implementation of regional initiatives, a series of Regional Development Forums have been scheduled for the first half of 2018 as follows:

- ITU Regional Development Forum for Africa will take place on 19-20 July 2018 in Accra, Ghana.
- ITU Regional Development Forum for the Arab States was held in Algiers, Algeria from 12 - 13 February 2018
- ITU Regional Development Forum for the Americas Region, took place on 25 May 2018 in Lima, Peru.
- ITU Regional Development Forum for the Asia and the Pacific Region took place on 21-22 May 2018 in Bangkok, Thailand.
- ITU Regional Development Forum for CIS: Dates and place to be determined
- ITU Regional Development Forum for Europe took place on 11 June, 2018 in Prague, Czech Republic.

1.3 Telecommunication Development Advisory Group (TDAG)

The 23rd meeting of the Telecommunication Development Advisory Group (TDAG) took place from 9 to 11 April 2018 at ITU headquarters in Geneva.

The 23rd meeting of TDAG had a broad agenda as it marked the first TDAG meeting after the World Telecommunication Development Conference 2017 (WTDC-17). In particular, this meeting discussed the following topics:

- Outcomes of WTDC-17 and their implications on the work of ITU-D, including TDAG’s scope of work, collaboration with the other Sectors and financial implications of the regional initiatives approved by WTDC-17
- Implementation of the ITU-D Strategic Plan and Operational Plan 2017 and ITU-D four-year rolling Operational Plan 2019-2022
- ITU-D contribution to the implementation of the WSIS outcomes and 2030 Agenda for Sustainable Development
- ITU-D Study Group-related matters
- Regional Development Forums (RDFs)
- Major ITU-D events and initiatives, including Global Symposium for Regulators (GSR), capacity building activities, World Telecommunication/ICT Indicators Symposium (WTIS) and innovation
- Membership, partnership and private sector-related matters
- Calendar of ITU-D events.

<i>WTDC</i>	<i>Resolutions 1, 5, 17, 24, 30, 33, 37, 50, 59, 61, 81</i>
<i>PP Resolutions</i>	<i>PP Decisions 5, 13 PP Resolutions 25, 71, 135, 140, 151, 154, 165, 166, 167</i>
<i>Council</i>	<i>Resolution 1372</i>
<i>WSIS Action Line</i>	<i>WSIS Action Lines C1 and C11</i>
<i>Contributing to SDG Targets</i>	<i>SDGs: 1, 3, (target 3.d), 5, 10, 16 (targets 16.5, 16.6, 16.8), 17 (targets 17.9, 17.16, 17.17, 17.18, 17.19)</i>

1.4 Study Groups

- The ITU-D study groups held their first Study Group 1 and 2 meetings for the new 2018-2021 study period in April and May 2018. ITU-D Study Group 1 with its seven Questions met from 30 April to 4 May, and ITU-D Study Group 2 with its seven Questions from 7 to 11 May. The invitation to the meetings was sent out to the membership in December 2018 (Circular [BDT/IP/CSTG-02](#)), following an invitation to the membership to nominate rapporteurs and vice-rapporteurs for the new study Questions (Circular [BDT/IP/CSTG-01](#)). The main purpose of the 2018 Study Group 1 and 2 meetings was to launch the work on the study Questions, appoint rapporteurs and vice-rapporteurs for the 14 Questions, agree on work plans with responsibilities and prepare a preliminary draft overview and table of content of the foreseen deliverables. The meetings progressed according to plans with the appointment of 139 new rapporteurs and vice-rapporteurs. They agreed on work plans for all study Questions and most Questions also have overviews and tables of content for their deliverables. The main results achieved during the meetings were communicated to the membership (Circular [BDT/IP/CSTG-04](#)).
- In conjunction with the Rapporteur Group meeting for Question 5/2 (Utilizing telecommunications/ICTs for disaster risk reduction and management) a panel session on Early Warning Systems (EWS) was held during the SG2 meeting on 8 May 2018. The holding of this type of sessions was further encouraged by the membership for the future. Experts gathered to share their knowledge and experience on early warning systems, including safety information systems with ITU-D members. The discussions were deemed useful for progressing on the annual deliverables of Question 5/2.
- Preparations for the 2018 ITU-D SG1 and SG2 Rapporteur Group meetings, which are scheduled to take place from 17 September to 11 October 2018, are currently ongoing. The invitation to the meetings was sent out to the membership in early June 2018 (Circular [BDT/IP/CSTG-05](#)).
- The two ITU-D study groups agreed to proceed with implementation of the Council 2017 initiated pilot project for participation of SMEs in ITU study groups (Circular [BDT/IP/CSTG-03](#)). To date, seven SMEs have participated in the pilot project with the support of their Administrations. Many of these SME pilot participants have also submitted contributions to the ITU-D Study Group 1 and 2 meetings. Areas such as cloud computing, rural access, cybersecurity and ICT applications have been particularly of interest to these SMEs. An assessment of the pilot is expected for the Plenipotentiary Conference.

WTDC	<i>Resolutions 1, 2, 5, 9, 17, 21, 30, 33, 50, 59, 61, 80, 81</i>
ITU-D	<i>Recommendations 15, 16, 17, 19, 20, 21, 22</i>
PP Resolutions	<i>PP Decisions 5, 13 PP Resolutions 25, 71, 133, 135, 140, 154, 165, 166, 167</i>
Council	<i>Resolution 1372</i>
WSIS Action Line	<i>WSIS Action Lines C1 and C11</i>
Contributing to SDG Targets	<i>SDGs: 1 (target 1.b), 3 (target 3.d), 5, 10, 16 (targets 16.5, 16.6, 16.10), 17 (targets 17.9, 17.16, 17.17, 17.18)</i>

Objective 2

“Foster an enabling environment for ICT development and foster the development of telecommunication/ ICT networks as well as relevant applications and services, including bridging the standardization gap”

The results achieved during the period of January to June 2018 are as follows:

2.1 Policy and regulatory frameworks

- ITU-D continues to provide high-quality data, research and analysis, and tools to support the ITU membership in defining, elaborating, implementing and reviewing transparent, coherent and forward-looking strategies, policy, legal and regulatory frameworks as well as in moving towards evidence-based decision-making. The annual ITU-D questionnaire to membership has been sent to gather information on [regulatory and policy issues](#) and [tariff policy issues](#). The 2017 regulatory and policy data has been published on the ICT Regulatory Tracker, and made available on the ITU [website](#). Contributions have been made with specific regulatory and policy and tariff/economic information and reports submitted to ITU-D Study Groups and published on the ITU [website](#).
- ITU web portals have been published on [International Mobile Roaming \(IMR\) Resources](#), [Quality of Service](#), [the Digital Ecosystem](#), [Infrastructure Development](#) and a new Regional Regulatory Associations Portal to bring together regulatory resources and ITU activities on such issues as well as activities and initiatives by regulatory associations, regional and international organizations and other stakeholders. It also highlights key findings from ITU publications, studies, research, ITU Study Groups, and data and analysis from the ITU ICT Eye.
- ITU prepared publications on topical regulatory and market environment issues, including an ITU Report on [Setting the stage for 5G: Opportunities and challenges](#) (available soon); a Report on [Regulatory challenges and opportunities in the new ICT ecosystem](#); and [a series of discussion papers prepared for and presented at GSR-18 on AI for Development](#).
- ITU successfully carried out preparations for GSR-18 (Geneva, 9-12 July 2018 under the Theme “New Regulatory Frontiers”), attracting significant interest in the theme and discussions prepared, and a record amount of requests for speaking slots and sponsorship opportunities in the Thematic and pre-events and main GSR-18 sessions.
- ITU organized a successful Interactive Session for WSIS Action Line C6 (Enabling Environment) on Sharing Collaborative Regulatory Approaches for Digital Transformation, highlighting cooperation at the international, regional and national level, and sharing experiences, best practices and tools for digital transformation.
- ITU-D is implementing a 3-year project to harness the potential of Information and Communication Technologies (ICTs) to strengthen Digital Financial Services (DFS) and Digital Financial Inclusion (DFI) in China, Egypt and Mexico. Within this context, ITU-D raised awareness on the enabling environment for Financial Inclusion in Egypt and Mexico through the preparation of a draft country assessment report on Digital Financial Inclusion and is working with China to define priority areas of leveraging ICTs for DFI as part of the Financial Inclusion Global Initiative.
- ITU-D raised awareness on the enabling environment for Financial Inclusion in Sudan through the development of a study titled “Digital Financial Services and Digital Financial Inclusion Ecosystem in Sudan”.
- More than 40 Arab and African participants were trained on telecom numbering planning trends, numbering policies and the impact and implication of National Numbering Plan

implementation in one-day regional workshop on Telecom Numbering Planning and Policies for Arab and Africa states organized back to back with Regional Study Group Meeting of ITU-T SG2. The workshop was organized in collaboration with TSB and kindly hosted by CIFODECOM of Tunis, 25 April 2018.

- ITU is developing a course in collaboration with the Government of India about the emerging digital landscape and regulatory framework in which digital payments operate as well as the new market participants and products that have disrupted the market.
- Enabling environment for ICT development, regulation & policy for Caribbean countries, including Update of National ICT Plans, Update of Broadband Plans, bSmart Project and Accessibility & Affordability. The following activities were coordinated during the first months of 2018:
 - Under the HIPCAR project (Enhancing Competitiveness in the Caribbean through the Harmonization of ICT Policies, Legislation and Regulatory Procedures), Jamaica sought and received assistance from ITU to provide a sensitization workshop to introduce the HIPCAR methodology and the HIPCAR model text and to discuss the potential impact of the introduction of Privacy and Data Protection Legislation in Jamaica. Recommendations and amendments were prepared based on the outcomes of the workshop and consultation with the Ministry. A draft of the proposed legislation and Draft Data Protection Act were prepared. Since then a Data Protection Bill (DPB) was prepared and tabled in the Houses of Parliament. The DPB contemplates the establishment of an Office of the Information Commissioner (OIC) to be responsible of ensuring compliance with the Data Protection Act and the Access to Information Act. An ITU expert is currently working on the OIC.
 - A bSmart project is under preparation for ITU to assist the government of the Bahamas. Through this project ITU will provide technical support, advice and guidance to contribute to the country's agenda; diversification, improvement of public services, enhanced security, enhancement of the tourism industry, developing an advanced ICT infrastructure and improve quality of life of the citizens. There have been some recent changes and reassignments of Permanent Secretaries. The project is under review and project document could be signed by all parties in the last quarter of 2018 if the Government decides to proceed with the project.
 - Preparations are in progress by the ITU to provide support to Antigua and Barbuda in reviewing the Telecommunications Act and to identify priority supporting Regulations consistent with the Act. Similarly, preparations are in place in collaboration with PAHO to assist Guyana with the development of an e-health national strategy.
 - Preparations are in progress by the ITU to hold a regional workshop on 5G, IoT, m-Payment – Emerging Technologies, Eco-Systems, and Regulatory Aspects".
- A large scale Project Document to assist the Brazilian regulatory body with the review of the telecommunications regulatory framework is under preparation and it foresees to provide ITU recommendations to (i) modernize and update the Brazilian General Law of Telecommunications (LGT); (ii) to change the scope of the concession contracts with telecommunication service providers, aiming at increasing infrastructure investments and the expansion of broadband access networks; (iii) for the creation of a Strategic Plan of digital transformation; (iv) to build confidence and improve regulator's relationship with consumers of telecommunication services; (v) to make the Brazilian regulator a reference in the use of Data & Analytics for decision making, and (vi) provide training courses to improve the performance and management of the workforce necessary to fulfil the responsibilities and

the mandate of the regulator. The Project is foreseen to be signed in 2018 and implementation start in 2019.

- Case Study on the evolution of ICTs considering the economic perspective and the policy and regulation environment is under preparation for Ecuador.
- E-Agriculture forum on developing an e-agriculture strategy for the Americas: A Regional Capacity Development Workshop on national e-Agriculture strategies in the Caribbean took place during the week of July 13-17th 2018.
- Schools on Digital Policies: The School of Digital Policies (EPD) is the result of ITU partnership with Getulio Vargas Foundation. Its main objective is to deliver short training on the Internet, from the governance standpoint and emphasize the importance of promoting the democratization of ICT access by means of digital public policies. Preparation of instructional material is finalized and course will be delivered through the ITU-Academy and its e-learning platform. Pilot course targets professionals of the Brazilian Public Administration and delivery will be in September/October 2018. The EPD will offer courses to other Latin American countries in 2019.
- Regional Economic Dialogue of Telecommunications/ICTs for Latin America and the Caribbean countries: ITU is preparing details for the Regional Economic and Financial Event on Telecommunications/ ICTs to be held in September in Mexico.
- ITU-D Study Group 1 Question 4/1 Experts' Knowledge Exchange - Economic policies and methods of determining the costs of services related to national telecommunication/ICT networks to be held in 6 September in Mexico, back to back with the Regional Economic Dialogue of Telecommunications/ICTs for Latin America and the Caribbean (RED).
- During the first months of 2018, preparations were launched for a research project on the behavior and practices of successful principals in Caribbean schools and the implications of ICTs as they are considering and/or continuing the introduction of ICTs, security and learnings in the curriculum. The project is expected to begin in July 2018.
- Enhanced regulatory cooperation for Digital Financial Services in China with bringing in the stakeholders in country implementation for project in China.
- Assisted Brunei Darus-Salam in assessment of national market readiness for future IMT-2020 (5G) networks.
- Assisted Philippines in developing a criteria for selecting a new major player to provide broadband services. The assistance continued in the next quarter with several public hearings.
- Around 150 participants raised awareness for policy makers in China on Big Data through ITU-MIIT Seminar (26-27 June, Nanning, China).
- Three training modules on DFS and Digital Payment has been developed for Government of India through internal expertise in close collaboration between BDT and TSB.
- Assisted Bangladesh Telecommunications Regulatory Commission on reviewing the International Long Distance Telecom Policy and carried out stakeholder consultation with recommendations on streamlining the licensing regime and competition safeguards.

<i>WTDC</i>	<i>Resolutions 1, 9, 17, 21, 23, 30, 32, 43, 48, 62</i>
<i>PP Resolutions</i>	<i>PP Decisions 5, 13</i> <i>PP Resolutions 25, 71, 102, 135, 138, 154, 165</i>
<i>WCIT</i>	<i>Resolution 3</i>

<i>WSIS Action Line</i>	<i>WSIS Action Lines C6 of the Geneva Plan of Action and §§ 112-119 of the Tunis Agenda for the Information Society</i>
<i>Contributing to SDG Targets</i>	<i>SDGs: 1 (targets 1.1, 1.2, 1.3, 1.4, 1.5, 1.a, 1.b), 2 (targets 2.3, 2.4, 2.c), 3 (targets 3.8, 3.d), 4 (targets 4.3, 4.4, 4.5, 4.7, 4.c), 5 (targets 5.1, 5.b), 7 (targets 7.a, 7.b), 8 (targets 8.2, 8.3, 8.9, 8.10), 9 (targets 9.1, 9.3, 9.5, 9.a, 9.c), 10 (targets 10.3, 10.c), 11 (target 11.1), 12 (targets 12.8, 12.b), 13 (target 13.3), 16 (targets 16.6, 16.7, 16.8, 16.10, 16.b), 17 (targets 17.6, 17.8, 17.9, 17.14, 17.16, 17.17)</i>

2.2 Telecommunication/ICT networks, including conformance and interoperability and bridging the standardization gap

- Basic National Spectrum Management System is to assist developing countries to establish basic structure of spectrum management system. Currently, projects for Comoros, Bolivia and Kyrgyzstan are ongoing. The results of the assistance will be the workplan for countries for implementing/updating their spectrum management structures and activities.
- 100 participants from 13 Arab countries participated and discussed the different themes presented during the workshop on Emerging Technologies held in Algeria 14-15/02/2018. An excellent exchange of opinions and feedback between delegates, speakers and the representatives of the local, regional and international companies and organizations.
- Further developments to Spectrum Management System for Developing Countries (SMS4DC) software is under upgrade process in two parts, administrative function and radio communication function. Installation USB is available now for replacing/adding to CD.
- 8 countries were assisted in operation and installation of the software and on higher resolution map.
- A new SMS4DC training is under organization by PIRRC (Pacific ICT Regulatory Resource Centre) for the new features of the tool and installing higher resolution map.
- As a part of Technical Assistance to Indonesia on The Radio Frequency usage for Small Vessel used for fishing activity, a national workshop was conducted in April 2018 on developing regulations for Maritime wireless communication with 75 participants from over 15 organizations.
- Caribbean Spectrum Management Task Force: 31 January to 2 February 2018 for around 30 participants from Caribbean countries provided contributions on the relevant reports of the Task Force (digital broadcasting transition, cross-border frequency coordination, emergency communication, spectrum pricing).
- Spectrum management and digital transition: The ITU is in the process of providing assistance to Guyana in relation to the Spectrum Management Technical Assistance Services as well as Spectrum Management Spectrum Management Training Workshop.
- IPv6 and IoT (Internet of Things) Expertise Center: The Project document signed with MUST (Malaysia University of Science and Technology) to assist developing countries.
- Assistance to Member States is ongoing with the development of a Guide on the implementation of IoT in the Immigration processes for developing countries.
- Broadband Wireless Network for Djibouti completed for Phase 2 and the maintenance contract finalized and signed by Djibouti Telecom.

- Procurement for the Broadband Wireless Network in Mali is in progress. The international call for Proposals has been done. The technical evaluation is following.
- Analyzing the new access technology "Li-Fi" (Light Fidelity / Optical access Technology) evaluated for developing countries in particular on GigaHotspots (out / in Door). Li-Fi uses visible light, Ultraviolet and Infrared: The spectrum is very large as compared to the entire radio frequency spectrum.
- ITU-D continues to implement and update the ITU Broadband Maps with information obtained from administrations, regulators operators and public sources (<http://itu.int/go/Maps>). At the time of this reporting, the Map presents information from 409 operator networks and 20,792 nodes worldwide. The research on the transmission links has reached 13,038,382 km of routes, representing 3,366,555 km of networks imported to the Map.
- As the sole facilitator of WSIS Action Line C2, BDT is leading activities on Information and Communication Infrastructure focusing on the achievements of the SDG 9 (infrastructure, industry and innovation). During the WSIS Forum 2018, 3 presentations were delivered for the Action Line C2 Facilitation Meeting.
- Digital broadcasting transition: A digital switch-over database was updated based on information from around 10 countries (see <http://www.itu.int/en/ITU-D/Spectrum-Broadcasting/Pages/DSO/Default.aspx>).
- Forum on the Conformance and Interoperability (C&I) in Innovation for Youths (25-27 June 2018) and a workshop on Establishing a Mutual Recognition Agreement (MRA) for the Caribbean Countries (28 -29 June 2018) were held in Port-of- Spain, Trinidad & Tobago. These events highlighted the importance of C&I for young IoT developers and served as forums for the discussion of the implementation of a MRA for the CARICOM region.
- Training on Conformance and Interoperability (C&I) for the Americas Region. Coordination is ongoing with countries of the Americas region to achieve a final design on the activity to be implemented.
- Organized online training through ITU Asia-Pacific Centre of Excellence e-learning Programme on "Internet of Things: Overview and Applications" during 23 April – 20 May 2018 building the capacity of 268 participants in China.
- Project to support and cooperate with the Ministry of Communications and Transportation MinTIC – Colombia, in development of studies, analyzes and proposals related to (i) the diagnosis and updating of National Technical Plans of Radio Broadcasting - PTNRS; (ii) to define the technological strategy for the new AM and FM broadcasting in the Republic of Colombia; (iii) new technologies for broadcasting; (iv) to the proposal of a manual of good practices for assembly of radio stations; (v) to the technical specification of a web tool for management and control of the PTNRS and the radio broadcasting concessionaires; as well as (vi) training and socialization activities.
- Project to contribute to the MinTIC in the development of a diagnosis and audit of the Spectrum Allocation by Objective Selection process in order to strengthen the management, analysis, administration, planning and allocation of the radio spectrum within the framework of the integrated management model of the ICT Ministry.
- Project for technical assistance for the validation and improvement of Spectrum Assignment processes for IMT (International Mobile Telecommunications) bands in Colombia.
- A Caribbean Forum on the Conformance and Interoperability (C&I) in Innovation for Youths 25-27 June 2018 and establishing a Mutual Recognition Agreement (MRA) for the Caribbean Countries Workshop, took place 28 -29 June 2018, Port-of- Spain, Trinidad & Tobago.

- Ongoing study on “Interconnectivity & Reduction of telecommunication service prices and Internet access cost” for South America country/countries. Ongoing coordination with ASETA and beneficiary countries for the development of the study, which is focused on the sub-region of Andean countries: Colombia, Ecuador, Peru and Bolivia. This study is meant to determine the situation of international interconnectivity and to describe the reasons for the internet access cost in the sub-region. Additionally, it will foster international interconnectivity between the countries. It is expected to be implemented by end of November.
- Support Surinam to define the National IXP model. This activity is organized with the Telecommunicatie Autoriteit Suriname (TAS). During the first three months of 2018, the study was coordinated with national stakeholders. In June 2018, there will be the first mission to Surinam to start the process. It is planned to have the study finalized by October 2018.
- Support on Cross Border frequency coordination for Central America & Caribbean countries. The 3rd meeting on Frequency Coordination took place in Panama on 7-11 May 2018. BDT and BR have been working with CITEL, COMTELCA and CTU in this endeavor. A 4th and final meeting has been scheduled to take place in September 2018 in Belize. This exercise responded to requests made at events celebrated in the Caribbean and Central America in 2016. Participating countries have established a verbal agreement to consider all the results achieved during the frequency coordination exercise into the future. The iterations and results associated can be found at <https://www.itu.int/en/ITU-R/terrestrial/broadcast/Americas/Pages/default.aspx>.
- Guidelines for transition from Analogue to Digital Broadcasting in Americas’ countries. Coordination started in the first months of 2018 with a potential beneficiary country.
- Cyber-security and Disaster Reduction Programme: Further to the post-implementation review of the project on National CIRT Establishment in Barbados, ITU was requested and has agreed to provide support and assistance with the continuation of the project towards full operationalization of the Barbados National CIRT. The assistance is expected to be completed by 30 December 2018.
- An excellent exchange of opinions and feedback between more than 100 delegates coming from 13 countries, the speakers and the representatives of the local, regional and international companies took place during the Regional Workshop on Emerging Technologies, Algiers, Algeria, on 14-15 February 2018. Fruitful discussions addressed the opportunities, benefits and challenges of the Emerging Technologies in the development of the ICT applications and services and related regulation issues.
- Raised awareness on spectrum policy, spectrum regulation, spectrum pricing methodologies and spectrum management for staff of Sudan’s National Telecom and Postal Regulatory Authority during a national training workshop organized in Khartoum 9-13 of March. The workshop also validated the spectrum-pricing framework.
- Provided platform for the Administrations, Regulators, Broadcasters, and Industry to look at the progress that has been made with the allocation of the 700 and 800 MHz bands across the region and the band plans that are emerging, and then look at the picture in the wider UHF band (including 600MHz).
- Increased capacity and facilitated knowledge exchange in the CIS on Mobile Number Portability, Conformance and Interoperability Testing of Telecom Equipment at the ITU Regional Workshop, held on 1-2 March in Moscow, Russia and attended by 60 participants from 5 countries.

- Discussion paper on the Future of Cable TV has been developed, and the ITU Workshop on The Future of Cable TV was jointly organized by BDT and TSB on 24-25 January 2018 in Geneva, Switzerland.
- The 6th Latin American Telecommunications Congress was co-organized in Varadero, Cuba, with GSMA LA, ASIET and the Development Bank of Latin America on 11-15 June with an attendance of more than 300 participants coming from 30 different countries, 17 international organizations and 32 companies. A Forum on Broadband for Rural Areas was organized on June 11th in that framework (<http://www.clt.lat/2018/eng/>).
- Organized "ITU Asia Pacific Centre of Excellence (CoE) Training on Monitoring RF spectrum in modern wireless era" on 16 – 20 April 2018 involving 3 participants from 13 countries and 4 exhibitors.
- More than 170 delegates from the Arab region participated in the 4th Annual Middle East and North Africa Spectrum Management Conference 2018 organized in collaboration with Forum Global, which was followed by the ITU Regional Workshop on the Future Utilization of UHF Band in the Arab Region, Including the 700 MHz Band, held in Marrakech – Morocco, on 12 April 2018. 70 participants discussed the progress that has been made with the allocation of the 700 and 800MHz bands across the Arab region and the band plans that are emerging, and then look at the picture in the wider UHF band (including 600MHz), and at the likely future shape of the UHF band as a whole across the region.
- As part of the implementation of the "Basic National spectrum management Project", in which Comoros is one of the beneficiaries, the second phase of the assistance run in Moroni on 16-20 April 2018, where a series of training on radio spectrum and a workshop on Analog to Digital Transition (A-D Transition) have been provided to the ANRTIC staff.
- 15 participants from Algeria trained to C&I Testing Regime and to technical and regulatory requirements for ICT equipment authorization. Different types of C&I Labs, the process for building C&I Lab and cost estimates presented and discussed.
- Regional Workshop for Europe and CIS on Digital Future powered by 4G/5G was held in Kiev, Ukraine from 14 to 16 May resulting in raised capacity of stakeholders and improved regional and interregional cooperation on 4G/5G, spectrum management and broadcasting. The workshop attracted 100 participants from 12 countries.
- Raised capacity of stakeholders on satellite communication improved cooperation between satellite operators at the ITU Regional Workshop held in Minsk, Belarus from 22 to 23 May. The workshop was attended by 40 participants from 6 countries.
- Improved cooperation between policy makers, regulators and private sector of ITU Member-States in the region on broadband at the ITU Regional Workshop held in Dushanbe, Tajikistan on 29-30 May. The workshop attracted 30 participants from 6 countries.
- Raised capacity of stakeholders and improved cooperation on IoT related issues at the ITU Regional Forum on "Internet of Things, Telecommunication Networks and Big Data as basic infrastructure for Digital Economy", which was organized jointly with the ITU-T in St. Petersburg, Russia on 4-6 June and attracted 106 participants from 20 countries. The Forum also resulted in concrete project proposal to be implemented within CIS RI5.

WTDC	<i>Resolutions 1, 9, 10, 11, 13, 17, 18, 20, 21, 22, 23, 25, 30, 32, 35, 37, 39, 43, 47, 48, 50, 51, 52, 57, 62, 63, 77, Recommendations 17, 19, 22</i>
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<i>PP Resolutions</i>	<i>PP Decisions 5, 13 PP Resolutions: 25, 71, 101, 123, 176, 177, 178, 203</i>
<i>WRC</i>	<i>Resolutions 12, 55, 212, 223, 224, 238, 908 Recommendations 207</i>
<i>WTSA</i>	<i>Resolutions 17, 20, 29, 44, 64, 72</i>
<i>WCIT</i>	<i>Resolution 5</i>
<i>WSIS Action Line</i>	<i>WSIS Action Lines C2, C3, C7 and C9 of the Geneva Plan of Action and the section "Financial mechanism for meeting the challenges of ICT for development" of the Tunis Agenda for the Information Society</i>
<i>Contributing to SDG Targets</i>	<i>SDGs: 1 (targets 1.a, 1.4), 4 (targets 4.4, 4.6, 4.a, 4.c), 6 (targets 6.5, 6.a, 6.b), 7 (targets 7.1, 7.b), 8 (targets 8.2, 8.5), 9 (targets 9.1, 9.4, 9.5, 9.a, 9.b, 9.c), 11 (targets 11.1, 11.5, 11.a, 11.b), 17 (targets 17.3, 17.5)</i>

2.3 Innovation and partnership

- Partnership and resource mobilization enhanced through direct contacts, networking, conference calls and meetings. Between 1st January and 31 June 2018, 24 new partnership agreements have been signed with the following breakdown:
 - Thematic: 10 on enabling environment, 4 on infrastructure, 3 on capacity building, 2 on both capacity building and multi-thematic and 1 each on ICT applications, on emergency, and on cybersecurity.
 - Beneficiary regions: 16 Global, 4 in Asia-Pacific, 3 in The Americas and 1 in Europe.
- Sponsorship Opportunities: Since January 2018, 3 sponsorship opportunities have been opened for Study Group meetings, ICT@SDGs: ITU-Academia Partnership Platform and GSR-18. They have been posted on the BDT interactive sponsorship opportunities platform/webpage launched in 2017. Out of the 24 new partnership agreements signed, 9 are sponsorship agreements.
- ITU-D membership: Since January 2018, 5 new sector members, 4 Associates and 27 affiliated Academic institutions have joined the work of ITU-D.
- A special Innovation track was held at WSIS Forum in March 2018, with the aim to share global knowledge and opportunities on ways to accelerate digital transformation through Building Digital Innovation Ecosystems, in four focused sessions, with over 300 participants and 39 expert speakers, including a high level panel, and keynote speakers from industry, bilateral and multilateral development agencies, entrepreneurs, innovation experts, etc.
- To accelerate digital transformation in ITU-D membership, technical assistance was provided to Serbia and Bosnia Herzegovina to assess their digital transformation capabilities. As a result, two publications co-created with the concerned countries were launched during WSIS: Digital innovation profiles for Bosnia and Herzegovina, and Serbia. Digital Innovation Profiles (DIP) are part of the BDT's new series of information and communication technology (ICT)-focused innovation ecosystem snapshots, which offer a quick assessment of the existing capacity to accelerate digital transformation and an overview of opportunities and challenges facing the countries' ecosystems. It helps countries accelerate digital entrepreneurship and its digital innovation ecosystem.
- Technical assistance provided to the Republic of Moldova was concluded with the launch of the publication on the ICT-centric innovation ecosystem country review Republic of Moldova. This publication offers a comprehensive analysis with recommendation on how Moldova

can upgrade its ICT policies with innovation and digital entrepreneurship policies, and thus accelerating digital transformation.

- To share knowledge and enhance membership capabilities to accelerate digital transformation, a new publication on the Good practices for developing, driving and accelerating ICT-centric innovation ecosystems in Europe was launched at WSIS Forum. This regional report on innovation aims to provide an overview of the many good practices in Europe, covering startups, government, academia, financing entities and more, towards accelerating digital transformation, which may serve as a basis for better policies in countries where gaps have been identified.
- To accelerate capacity building initiatives on innovation, the publication, “Bridging the digital innovation divide: A toolkit for strengthening ICT-centric ecosystems”, was made available in all six official United Nations languages. Thus, ITU-D membership can have access to information in all UN languages about ITU’s a scalable and multi-stakeholder driven framework for assessing, making context specific guidelines and recommendations to foster digital entrepreneurship and ICT innovation ecosystems.
- In order to seek to highlight the importance of C&I and is intended to sensitize innovators/ developers, and persons who support pre-compliance testing, of IoT product solutions to matters that necessarily precede the commercial deployment of an IoT product solution a Caribbean Forum on the Conformance and Interoperability (C&I) in Innovation for Youths 25-27 June 2018.
- WSIS Panel design and delivery: An insight into “ICT-centric economic growth, innovation and job creation” (19 March 2018) within WSIS session on “Building Vibrant ICT Centric Innovation Ecosystems”. The event served as a platform to further promote ITU’s book on ICT4SDGs, showcase examples of successful PPPs (Public Private Partnerships) and enhanced engagement of Academia in ITU’s work.
- In order to continue fostering ITU’s involvement with the academic community, the Partnership Platform on ICT4SDGs: ICT-enabled Economic Growth, Innovation and Job Creation for Sustainable Development was held at London School of Economics in London, UK, on 22-23 May 2018, with the participation of over 100 leading academicians as well as representatives from the public and the public and private sectors. It provided an opportunity for an interactive dialogue with the stakeholders within the ICT-centric ecosystem and the development community. Moreover, the event provided a forum to share emerging opportunities in the digital world and to discuss how upcoming technologies like artificial intelligence, big data and others can be further studied to contribute to the Sustainable Development Goals (SDGs)
- Assisted the Arab Incubators and Technoparks Network (ARTECNET) to reach an agreement on the following projects to be initiated in the Arab Region:
 - Training Project for Incubator managers and entrepreneurs
 - Soft-landing + Acceleration Program
 - ARTECNET Award for Entrepreneurship
 - Website Development and online platform for the ARTECNET network
- With the aim of building partnerships across UN in the implementation of the ICT4SDG projects, ITU contributed to the Regional Forum on Sustainable Development for UN Economic Commission for Europe Region, 1-3 June, Geneva, Switzerland, where more than 400 delegates were briefed and encouraged to build partnerships with ITU in the implementation of the projects in Europe.

<i>WTDC</i>	<i>Resolutions 1, 5, 30, 33, 50, 59, 71, 157</i>
<i>PP Resolutions</i>	<i>PP Decisions 5, 13 PP Resolutions: 25, 71, 72</i>
<i>WSIS Action Line</i>	<i>WSIS Action Lines 3, 4, 5, 6, and 7 of the Geneva Plan of Action and the section “Financial mechanism for meeting the challenges of ICT for development” of the Tunis Agenda for the Information Society</i>
<i>Contributing to SDG Targets</i>	<i>SDGs: 1 (targets 1.a; 1.b), 2 (targets 2.a, 2.c), 3, 4 (targets 4.a, 4.b, 4.3, 4.7), 5 (targets 5.b, 5.6), 8 (target 8.2, 8.3, 8.6, 8.10, 8.b), 9 (targets 9.5, 9.b, 9.c), 10, 11 (targets 11.1, 11.4), 12, 13 (target 13.3), 16, 17 (targets 17.1, 17.3, 17.9, 17.14, 17.16, 17.17)</i>

Objective 3

“Enhance confidence and security in the use of telecommunications/ICTs, and roll-out of relevant applications and services”

The results achieved during the period of January to June 2018 are as follows:

3.1 Building confidence and security in the use of ICTs

- A coordination meeting was hosted by the World Bank in Washington from 26 to 27 February 2018 in order to set up a road map to finalize the development of the national cyber strategy toolkit that will represent a single resource for any country to gain a clear understanding of the purpose and content of a national cybersecurity strategy and how to develop one. This project is a multistakeholder effort facilitated by ITU and in partnership with the CCI, CTO, GCSP, GCSCC University of Oxford, Deloitte, Microsoft, NATO CCDCOE, Potomac Institute, RAND Europe, UNCTAD and World Bank.
- On 8 March, BDT has launched the 3rd iteration of the Global Cybersecurity Index (GCI) aimed at measuring the commitment of Member States of the ITU to cybersecurity.
- From 14 to 16 March 2018, BDT has undertaken technical assessments to evaluate the preparedness for the establishment of Computer Incident Response Teams (CIRTs) for Kyrgyzstan and Malawi.
- On 15 March 2018, BDT conducted a high-level simulation of Cyber-related Crisis Scenarios for Top-level Government Officers and critical infrastructure Operators in Mauritius, the purpose of this simulation was to raise awareness among high-level decision makers and familiarize them with the challenges of dealing with cyber-related crisis scenarios that require their involvement.
- Carried out coordination meetings with representatives from Naïf Arab University for Security Sciences and the Academy of Scientific Research to discuss how to get the academia more involved with cybersecurity and how to develop and integrate academic courses/workshops/handbooks on cybersecurity in the academic programs of engineering and computer sciences faculties. This is to meet the expected results associated to the Arab regional Initiative on Confidence and Security in the Use of Telecommunications/ICTs. Concrete actions will be done in the near future.
- Contributed to the conference on Promoting cybersecurity culture in Schools in Tunisia on 20 June 2018, and promoted the ITU Arab Regional study on the “Legal Framework on

Child Online Protection: A Guide for Arab Region” and the efforts have been done related to “Awareness-raising tools for Child Online Protection”.

- Provided assistance to the Administrations of Kazakhstan and Kyrgyzstan in preparing data for the 3rd iteration of the Global Cybersecurity Index (GCI).
- The regional cybersecurity event on “Cybersecurity from La Plata River” was held at the University of La Plata on 4-8 June 2018. The event included the following parts:
 - Sessions for decision taken level on Critical Infrastructure,
 - 30 deep technical trainings on cybersecurity,
 - One training provided by FIRST,
 - One Child Online Protection session, and
 - Seven scenarios for the Cyberdrill (hands on exercises).
- The event had 117 attendees, representing 10 countries of the region: Argentina, Bahamas, Brazil, Chile, Cuba, Ecuador, El Salvador, Guyana, Paraguay, and Uruguay.
- Technical assessments were carried out from 16 to 20 April 2018 to evaluate the preparedness for the establishment of Computer Incident Response Teams (CIRTs) for Samoa in partnership with APNIC , Global Cyber Security Centre , Oxford University , Oceania Cybersecurity Center , Australia , supported by the Department of Communications and Arts , Australia and raised awareness of about 50 participants by delivering hands-on training workshops aimed at building and strengthening human capacity in cybersecurity related matters in general and CIRTs in particular.
- Technical assessments were carried out on 4-8 June 2018 to evaluate the preparedness of Computer Incident Response Teams (CIRTs) for Tonga in partnership with APNIC, Global Cyber Security Centre, Oxford University, Oceania Cybersecurity Center, Australia, and supported by the Department of Communications and Arts, Australia.
- Raised awareness of 51 participants from 6 countries ITU Asia Pacific Centre of Excellence Training Course on Cybersecurity was delivered on 12-16 May 2018 in Tehran, Iran.
- National IGF forum was organized in Ebolowa, Cameroon, the meeting gathered all bodies and institutions from the country southern region to be acquainted to Internet management and Cybersecurity issues.
- Built capacity of 34 participants in the area of Internet and IPv6 Infrastructure Security in Asia-Pacific region through ITU ASP CoE training.
- Regional Workshop for Europe and CIS on Cybersecurity and Child Online Protection was held in Odessa, Ukraine from 4 to 6 April resulting in raised capacity of stakeholders an improved regional and interregional cooperation on combatting cybercrime and child online protection. The workshop attracted 50 participants from 14 countries.

<i>WTDC</i>	<i>Resolutions 1, 5, 9, 15, 30, 33, 37, 45, 50, 59, 64, 67, 69, 78, 79</i>
<i>PP Resolutions</i>	<i>PP Decisions 5, 13</i> <i>PP Resolutions 25, 71, 72, 130, 179, 181</i>
<i>WTSAs</i>	<i>Resolutions 50, 52, 58</i>
<i>WSIS Action Line</i>	<i>WSIS Action Lines C5</i>
<i>Contributing to SDG Targets</i>	<i>SDGs: 1, 3 (target 3.5), 4 (target 4.a), 5 (targets 5.2, 5.3, 5.b), 7, 8, 9, 10 (target 10.2), 11, 16, 17</i>

3.2 ICT applications and services

- A #HackAgainstHunger was organized in collaboration with the Food and Agriculture Organization (FAO) to identify and support innovative solutions, aiming at addressing challenges in regards of food and agriculture. It included 3 local hackathons in Rwanda (Kigali), and in the Caribbean's (one event in Jamaica and another one in Trinidad & Tobago), as well as a Special Track Hackathon in Geneva during the WSIS Forum 2018. 80 participants coming from 33 different countries forming 13 teams have competed to develop innovative digital services to end hunger. Three teams were awarded based on the feasibility and potential impact of their innovation.
- ITU co-organized the Mobile Learning Week 2018 with UNESCO that focused on the challenges and strategies to offer digital skills development opportunities for all. The annual gathering featured a symposium, workshops on innovative projects and policies, strategy labs, as well as a policy forum on national educational initiatives with ministers of education, technology and communications to prepare for the digital economy.
- A project on Digital Identity for Development was launched to assist countries, particularly low and middle income countries (LMICs), to deploy digital identity initiatives that can enable value-added services in most digital economy areas including financial services, health, agriculture, education, etc. The project will take stock of existing digital identity initiatives and develop implementation toolkit to provide a Roadmap to deploy digital identity for Foundational or Functional Identification.
- A special Track within the AI for Good Summit on using Artificial Intelligence applications as a potential game changer to achieve Universal Health Coverage is organized to identify quick-win areas and types of AI applications that hold high-potential impact on health outcomes. IT also deals with how to address bottlenecks and challenges that prevent society from taking full advantage of them.
- Preparations are under way for several events, including a Digital Health Hub at the Transform Africa Summit (8-9 May 2018), two regional Digital Health Workshops in Africa in Q2/3 in Francophone and Anglophone Africa, and the regional e-Agriculture Strategy Development Regional Workshop for the Caribbean (July 2018).
- M and e-health initiative in the Americas: ITU and PAHO agreed in the Application of the National eHealth Strategy toolkit¹ to Guyana.
- Within CIS R11, developed content for the specialized multimedia courses focusing on the use of ICTs in healthcare, including telemedicine and courses for IT specialists on the maintenance of medical information systems (jointly with Odessa National Academy of Telecommunications, Ukraine).
- As a part of its role in disaster risk reduction in the Caribbean, the ITU has commissioned the deployment of a mobile multi-hazard Early Warning and Information sharing platform in the region in concert with the regional disaster management agency CDEMA.
- Regional Workshop for CIS and Asia-Pacific on Big Data and Cloud Computing was held in Tashkent, Uzbekistan from 19 to 20 June resulting in raised capacity of stakeholders and improved regional and interregional cooperation on Big Data and Cloud Computing. The workshop attracted 90 participants from 8 countries.
- Assistance was provided to Afghanistan in development of their E-agriculture strategy in partnership with FAO and national government;

¹ The National eHealth Strategy toolkit can be found at https://www.itu-ilibrary.org/science-and-technology/national-ehealth-strategy-toolkit_pub/8069793a-en

- FAO and ITU published E-agriculture in Action with focus on Drones in Agriculture case studies.
- Raised awareness on digital transformation through ITU booth during the Asia-Pacific Forum for Sustainable Development on ICT for Transformation and Resilience.
- Awareness raised on Digital Health through a number of events:
- Two presentations were delivered by ITU during the Geneva Health Forum on how to address digital health fragmentation and to achieve Digital Health Integration on 10 and 11 April.
- Presentation delivered about the ITU and FAO joint effort related to “E-agriculture Strategy-Sustainable ICTs for Agriculture” at the 6th International Conference on Oil Palm and the Environment (ICOPE 2018), Bali (Denpasar), Indonesia.
- In June 2018, ITU co-chaired a session with ASEAN Joint working group meeting. During the session ITU and ASEAN decided to continue working on enhancing the existing collaboration on USO 2.0 and Child Online Protection. It was also decided that more awareness on reporting data for the ITU’s IDI would be created.
- ITU co-organized with WHO AFRO and Transform Africa Summit a Digital Health Hub at the Transform Africa Summit, 8-9 May 2018. The Hub featured a number of policy dialogues and best practices for digital health implementation in Africa.
- Preparations are ongoing to organize two regional Digital Health Workshops in Africa in Q2/3 in Francophone and Anglophone Africa to build capacity on scaling up integrated digital health applications.
- Another regional e-Agriculture Strategy Development Regional Workshop for the Caribbean is under preparation with FAO to take place in July 2018.

<i>WTDC</i>	<i>Resolutions: 1, 5, 30, 54</i>
<i>PP Resolutions</i>	<i>PP Decisions 5, 13 PP Resolutions 25, 71, 72, 139, 140, 183, 202</i>
<i>WSIS Action Line</i>	<i>WSIS Action Lines C7 of the Geneva Plan of Action</i>
<i>Contributing to SDG Targets</i>	<i>SDGs: 2, 3, 4 (targets 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7), 6, 7, 8 (targets 8.1, 8.3, 8.8), 9 (targets 9.1, 9.b), 11</i>

Objective 4

“Build human and institutional capacity, provide data and statistics, promote digital inclusion and provide concentrated assistance to countries in special need”

The results achieved during the period of January to June 2018 are as follows:

4.1 Capacity building

- The 6th meeting of the Group on Capacity Building Initiatives (GCBI) was held successfully from 27 to 28 February 2018. The meeting reviewed the strategic capacity building developments that have taken place in the past year, discussed the capacity building-related outcomes of WTDC-17 and provided guidance on the implementation of the recommendations.
- The Central Evaluation and Accreditation Agency (ZEvA), a member of the European Association for Quality Assurance in Higher Education, has awarded the Spectrum Management Training Programme (SMTP) its quality label for higher education and recognition of the SMTP modules

as equivalent to Master's degree modules. With this award, the SMTP can be aligned to Master's degree programmes internationally, making it easier for Universities to adopt the programme.

- All modules that make the basic level certificate of the SMTP have been translated into Spanish.
- The capacity building session for WSIS AL C4 was successfully facilitated on 9 March, under the theme "Building ICT skills for social entrepreneurs". The session featured speakers from ILO, government of Mexico and social entrepreneurs. About 50 participants attended the session.
- Co-organized the 2018 mobile learning week with UNESCO under the theme "Skills for a connected world". The event was held in Paris during the week of 26-30 March. Contributions relating to capacity building in the digital economy were made to a number of sessions during the event.
- The review of the operational processes and procedures (OPP) document of the Centres of Excellence network has been completed. The revised OPP document is now being translated into the six UN official languages.
- The Centres of Excellence network delivered 12 courses, training 583 participants since January 2018.
- 21 participants have been enrolled for the online master of communications management (eMCM) course between January and February 2018.
- The ITU online indigenous training course on "Communication Innovative Tools for the strengthening of Indigenous Communities of the Americas Region" has received over 600 registrations. ITU will accept 150 in each class and will deliver two classes in 2018 – only one class was planned for this year. The other 300 were invited to attend the two classes planned for 2019.
- ITU is also developing instructional material for a Training Program for Indigenous Technicians on Community Networks. This training will be partially delivered online and it is foreseen to have a 2-week hands-on in-site training.
- Capacity building to support ITU members in the definition of global ICT policy & regulation and business & management of technical issues:
 - Online training courses were delivered within the ITU network of Centres of Excellence within the Americas Region in Communication Protocols for IoTs and Satellite Communication, Optical Networks, Spectrum Management, Cybersecurity and Climate Change.
 - Online training courses were delivered within the ITU network of Centres of Excellence for the Africa Region on Emerging Trends in Regulation of ICTs on March 5 -30, 2018, Social Media Content Regulation on April 2 – 27, 2018 and four courses on SMT OM1 to OM3 from January to June 2018.
 - An online training course on Smart Sustainable Cities was launched and delivered through the ITU Academy platform. This is an ITU initiative implemented in partnership with CITEL/OAS and 12 countries benefited from this training (Anguilla, Argentina, The Bahamas, Bolivia, Barbados, Egypt, India, Jamaica, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, and Yemen).
 - An online training course on Consumer Protection is under preparation. It will be a self-paced training course to be delivered through the ITU Academy platform. This is a direct assistance requested by the Brazilian Administration (ANATEL).

- Under the partnership ITU-ITSO, a face-to-face training course will be delivered in the field of Satellite Communication in September 2018 and will be hosted by the Ecuador.
- ITU launched the Strategic Telecommunication Management Program, which is organized in partnership with UBP and in collaboration with ANTEL, ASETA and COMTELCA. This is continuing education online program comprised by 9 modules, to be delivered under the ITU Academy platform in 2018 and 2019.
- Participants from Arab region were trained on the proper design of FTTx point-to-point and point-to-multipoint passive optical networks (PON) with home-run, centralized, and distributed topologies in a regional CoE Face to Face Training on “FTTx Outside Plant Design” organized in Tunis, Tunisia, 12- 16 March 2018. The training was attended by 9 participants.
- Equipped the participants with an advanced understanding of the project management applied to ICT projects in a regional CoE course on Project Management for ICT applications and services organized in cooperation with SUDACAD-Khartoum during 16-18 April 2018. The course was attended by 13 participants.
- Enhanced knowledge and skills on ICTs apps and services business analysis in a regional CoE course on Business analysis for ICT applications and services organized in cooperation with SUDACAD- Khartoum, 23-15 April. The course was attended by more than 30 participants. Due to high request of this course, another session was organized and attended by more than 30 participants.
- More than 100 participants have built their capacity through the following 4 training programs:
 - The ITU Asia-Pacific Centre of Excellence training on “Mobile Broadband QoS” was held successfully on 1-5 May 2018 at AL TTC, Ghaziabad, India (26 participants) in partnership with AL TTC and TRAI.
 - The ITU Asia - Pacific Centre of Excellence training on “Internet and IPv6 Infrastructure Security” was held successfully on 1-5 May 2018 at AL TTC, Ghaziabad, India (34 participants) in partnership with MDES (Thailand) and APNIC.
 - Regional Training on The Use of Drones, Satellite Imagery and GIS for Agriculture was successfully held on 4-8 June 2018 at the Asian Institute of Technology, Thailand (36 participants) in partnership with FAO and GIC.
 - ITU Asia - Pacific Centres of Excellence eLearning training on “Internet of Things: Overview and Applications was organized (23 April - 20 May 2018) with ITU and CAICT.

<i>WTDC</i>	<i>Resolutions 1, 5, 9, 15, 20, 21, 22, 30, 32, 33, 36, 40, 50, 59, 73, 77</i>
<i>PP Resolutions</i>	<i>PP Decisions 5, 13 PP Resolutions 25, 71, 72, 137, 139, 140, 176, 188, 189, 197, 199, 202</i>
<i>Council</i>	<i>Resolution 1143</i>
<i>WTSa</i>	<i>Resolutions 54, 59, 72</i>
<i>WSIS Action Line</i>	<i>Action Line C4 of the Geneva Plan of Action and §§ 8, 22, 23a, 26g, 49, 51, 65, 72h, 86, 87, 90c, d, f, 95, 114b of the Tunis Agenda for the Information Society</i>
<i>Contributing to SDG Targets</i>	<i>SDGs: 1 (target 1.b), 2 (target 2.3), 3 (targets 3.7, 3.b, 3.d), 4 (targets 4.4, 4.7), 5 (targets 5.5, 5.b), 6 (target 6.a), 8 (Target 8.2), 9 (targets 9.1, 9.b, 9.c), 12 (targets 12.7, 12.8, 12.a, 12.b), 13 (targets 13.2, 13.3, 13.b), 14 (target 14.a), 16 (target 16.a), 17 (target 17.9, 17.18)</i>

4.2 Telecommunication/ICT statistics

- BDT enhanced information and knowledge of policy-makers and other stakeholders on current telecommunication/ICT trends and developments based on high-quality, internationally comparable telecommunication/ICT statistics and data analysis via the latest edition of the ITU World Telecommunication/ICT Indicators Database, which was released in January 2018. The data will enable users to take informed decisions in the field of ICT, based on internationally comparable statistics.
- BDT increased capacity and skills of producers of telecommunication/ICT statistics to carry out data collections at the national level based on international standards and methodologies via the following events:
 - Regional Workshop on ICT Statistics for the CIS region held in Almaty, Kazakhstan, on 31 January-1 February 2018. The workshop was organized jointly by the ICT Data and Statistics Division and the ITU Area Office for CIS, in cooperation with the Ministry of Information and Communication of the Republic of Kazakhstan and with the support of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan. The meeting was attended by 79 participants, including representatives from Azerbaijan, Belarus, India, Kazakhstan, Kyrgyzstan, the Russian Federation, Tajikistan and Uzbekistan. Also representatives from RCC attended the meeting. Seven experts participated remotely, including representatives from Armenia, Moldova and Ukraine.
 - Regional Workshop on ICT Statistics for the Asia-Pacific region held in Manila, Philippines, on 14 - 16 March 2018. The workshop was organized by the ITU and was hosted by the Department of Information and Communications Technology (DICT) Philippines. It was attended by 91 participants from 10 countries representing national statistics offices, national regulatory authorities and ministries of Fiji, India, Iran, Malaysia, Mongolia, Papua New Guinea, Philippines, Sri Lanka, Thailand and Vanuatu. Representatives from an operator from India also participated.
 - Regional Workshop on ICT Statistics for the Africa region held in Lilongwe, Malawi on 20-21 March 2018. The regional workshop was attended by 69 participants representing 24 countries (Benin, Burkina Faso, Burundi, Botswana, Côte d'Ivoire, DRC, Gambia, Ghana, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Sao Tome e Principe, Senegal, Sierra Leone, South Africa, South Sudan, Tanzania, Togo, Uganda, Zambia and Zimbabwe) and the ITU. The workshop was attended by representatives of communication administrations, regulators, national statistical offices and other interested stakeholders of the countries of the region, who are responsible for collecting and producing ICT statistics. The workshop was organized jointly by the ICT Data and Statistics Division and the ITU Area Office for the Africa, in cooperation with the Ministry of Information and Communication Technologies and the National Statistical Office (NSO) of Malawi with the support of the Malawi Communications Regulatory Authority (MACRA).
 - National Workshop on ICT Statistics for Malawi held in Lilongwe, Malawi on 22 March 2018. The telecommunication indicators collected by Malawi Communications Regulatory Authority (MACRA) from operators were discussed in detail, focusing on those indicators where MACRA or the operators have difficulties complying with the methodologies. The IDI results for Malawi were presented, as well as measurement of a number of emerging areas, such as M2M subscriptions, cyber security, children online and E-waste.

- Regional Workshop on ICT Statistics for the Arab States held in Manama, Bahrain on 26–27 March 2018. The workshop was organized jointly by the ICT Data and Statistics Division and the ITU Area Office for the Arab States, in cooperation with the Ministry of Transportation and Telecommunications of Bahrain. The meeting was attended by 27 participants representing eight countries (Bahrain, Djibouti, Egypt, Iraq, Oman, Saudi Arabia, Sudan and the United Arab Emirates), as well as three regional telecommunication operators (Mobile Company, Saudi Telecom and Emirates Telecommunication Corporation – Etisalat).
- National ICT indicators workshop for Benin. Held in Cotonou, Benin, on 2-3 May 2018. The workshop was attended by 31 participants representing 15 different institutions, including representatives of communication administrations, regulators, operators, national statistical offices and other interested stakeholders, who are responsible for collecting and producing ICT statistics.
- Preparations are ongoing in collaboration with ECTEL (Eastern Caribbean Telecommunications Authority) and host country for the Regional Regulations and Policy Forum on 5G, IoT, m-Payment, Emerging Technologies and Eco-Systems: ECTEL to be held on 22-26 October.
- Spectrum management and digital transition for Caribbean countries. ITU direct assistance to Guyana through its National Frequency Management Unit (NFMU) in assessing and reviewing its Spectrum Assignments as part of its reform process.
- Americas Regional Development Forum (RDF). The America’s Regional Development Forum was organized on May 25th, in close cooperation with the Inter-American Telecommunication Commission – CITELE and back to back to the 32 CITELE PCC I meeting and at the kind invitation of the Ministry of Transport and Communication – MTC of Peru. 165 registered participants representing 14 Members States, 10 Sector Members, 8 Academia Members, and 12 other institutions. Several countries indicated that budgetary restrictions prevented them from participating in the Forum.

<i>WTDC</i>	<i>Resolutions 1, 5, 8, 30, 33, 37, 43, 50, 51, 52, 57, 59, 60</i>
<i>PP Resolutions</i>	<i>PP Decisions 5, 13 PP Resolutions 25, 71, 72, 137, 139, 140, 176, 188, 189, 197, 199, 202</i>
<i>WSIS Action Line</i>	<i>Telecommunication/ICT statistics are relevant to the monitoring of the implementation of all WSIS Action Lines of the Geneva Plan of Action and are referred to in paragraphs 112-119 of the Tunis Agenda for the Information Society, as well as paragraphs 70 of the Outcome Document of the High-Level Meeting of the General Assembly on the Overall Review of the Implementation of WSIS Outcomes</i>
<i>Contributing to SDG Targets</i>	<i>Telecommunication/ICT statistics are relevant to the monitoring of the implementation of all SDGs and are referred to in paragraphs 48, 57, 74-76, 83 of the 2030 Agenda for Sustainable Development</i>

4.3 Digital inclusion of people with specific needs

- **Youth**
 - BDT shared innovative strategies with all ITU members on building their national digital skills development strategies by publishing the ITU Digital Skills Toolkit on the ITU Publications website at <https://www.itu.int/pub/D-PHCB>. Awareness on the Digital Skills Toolkit along with the joint ITU-ILO Digital Skills for Decent Jobs for Youth Campaign to incentive stakeholders to train 5 million young women and men with job-

ready digital skills was shared with 950 ITU members and other stakeholders during the WSIS High Level Dialogue on Digital Skills on 21 March, at Mobile Learning Week in Paris on 26-30 March, jointly organized by ITU and UNESCO, Digital Skills for Everyone: Accelerating Europe's Competitiveness and Inclusive Growth, 5 April 2018, Brussels, Belgium; Enabling Digital Entrepreneurship through Better Connectivity and Skills, E-Commerce Week, 16 April 2018, Geneva, Switzerland; Digital Skills for African Youth, Technical Session 6: Adapting and developing agility through a comprehensive national digital skills for enhanced employability, productivity and innovation capacity, 18-19 April 2018, Tunis, Tunisia; Innovations on Decent Jobs for Youth, 2-3 May 2018, Geneva, Switzerland and the 21st session of the UN Commission on Science and Technology for Development (CSTD), hosted by UNCTAD in Geneva on 15 May.

- ITU Americas Regional Office in partnership with UN Women and other local collaborators organized a digital inclusion event for 80 girls attending public schools in Brasilia, Brazil focused on motivating the girls to embrace technological careers. The event offered workshops on Digital Story Telling, Programming with Scratch and Robotics. During the event ITU and UN Women also organized several conversation groups that discussed issues such as entrepreneurship and financial independence, violence against women, self-defense, self-analyses and empowerment, among other relevant issues. The event was carried out during the weekend of 23 and 24 of June 2018. The event was a big success and as a result, another TIC TAC event is being organized for the month of October 2018, including UNESCO as partner. The name TIC TAC stands for: TIC=Information and Communication Technologies (for its acronym in Portuguese); and TAC for transformation, access and knowledge (also considering the first initials of these words in Portuguese)
- **Gender**
 - 131 countries organized International Girls in ICT Day events in 2018, encouraging 57,748 participating girls in 2,186 events to take up ICT careers and studies. The Africa region organized events in 29 countries, the Americas in 31 countries, 10 Arab States organized events, 22 countries in the Asia and Pacific region organized events, 8 countries celebrated in the CIS and 30 countries in Europe. New countries joining the campaign in 2018 include Mongolia, Solomon Islands, Tajikistan, Timor-Leste and Uzbekistan. ITU Sector Members, Cisco organized events for 4,349 girls and Microsoft for 3,600. Germany, the Netherlands, Italy, Spain, Senegal, Colombia, Guatemala and Chile attracted the largest numbers of girls (listed in order of magnitude.)
 - The Girls in ICT Day in the Arab region was promoted and assistance and guidance were provided to organizers from the region when needed. More than 8 events organized in the region.
 - Participated remotely in the Girls in ICT Day organized by the University College of Applied Sciences in Gaza, Palestine.
 - 25 Girls were trained on digital marketing and social media best practices during the workshop organized under the "Girls in ICT Day" initiative in Aswan, Egypt from 6 to 7 May 2018, as part of the cooperation agreement signed between ITU-ARO and GIZ Egypt.
 - Around 50 events in Asia - Pacific were carried out on Girls in ICT Day on Agritech using ICTs in partnership with MDES (Thailand), FAO, UNESCO and CISCO.
 - There have been 323,214 Girls in ICT Day Portal views, with 139,000 reached by the Girls in ICT Day Facebook posts. #GirlsinICT reached over 93 million accounts for an estimated exposure of 379 million timeline deliveries.

- In the first quarter, outreach was conducted with ITU members and other stakeholders to encourage them to organize Girls in ICT Day events as part of the 2018 International Girls in ICT Day Campaign. To incentivize more stakeholders to take action, BDT developed an online map where stakeholders can post information and pictures about their Girls in ICT Day events. BDT conducted a “Put yourself on the map” campaign that proved to be very successful in incentivizing organizers to share information about their activities.
 - BDT also raised awareness among students at the Webster University, Geneva in support of International Girls in ICT Day and encouraged young girls during an event organized at Webster University on 6 March to take on a career in ICT during the ITU-D presentation on “Empowering girls through technologies.”
 - Awareness was raised by developing and publishing ITU News stories and sharing them on the Girls in ICT Portal, reflecting actions that countries like Pakistan and Thailand are taking to train girls and young women with digital skills for their economic empowerment.
- **ICT accessibility**
 - Awareness was raised among over 50 UN representatives and relevant participants on ITU-D activities on ICT accessibility that could apply for persons with age-related disabilities during the seminar “Basics on ageism” organized by UN in cooperation with WHO and ILO on 30 January 2018.
 - At the UN-CRPD (Committee on the Rights of Persons with Disabilities) held in Geneva on 14 February, around 100 representatives from all UN agencies and related stakeholders, including disabled persons organizations, were informed about the activities and resources of BDT that contributed to the global implementation of ICT Accessibility under Article 9 of the UN Convention on the Rights of Persons with Disabilities. The Committee recognized that ICTs cross-cut through all articles of the Convention and that ITU is a key partner in the process of implementation of the Convention.
 - Over 50 ITU members and other stakeholders participating in the 23 March WSIS workshop, “Practical applications of ICTs supporting digital inclusion and access to information, services and livelihood for PwDs”, were made aware of BDT work and resources to support ITU membership in the implementation process of ICT accessibility in their respective countries and related businesses.
 - Awareness was raised among nearly 700 participants from over 70 countries on the importance of implementing ICT Accessibility and key resources developed by BDT during the ITU Forum on ICT Accessibility organized within the Zero Project Conference in Vienna (Austria) on 21-23 February. At the Forum, BDT also announced the First joint ITU-EU Accessible Europe event to take place in December 2018 and positioned BDT as a key partner in the implementation process.
 - A set of three (3) self-paced online training courses entitled “ICT Accessibility: the key to inclusive communication” were developed. These courses aim to provide a good understanding of ICT accessibility among all relevant stakeholders, in particular focusing on related policies, regulations, technology trends and public procurement rules. This course was developed in response to the outcomes of WTDC-17, in particular the ITU Regional Initiative for Europe that calls for building human capacities in field of ICT accessibility. These free online certificate courses consist of three modules as follows:

- ◆ Module 1: *Enabling communication for all through ICT accessibility*;
- ◆ Module 2: *ICT accessibility policy regulations and public procurement standards*;
- ◆ Module 3: *Achieving ICT accessibility through public procurement*.
- Five (5) video tutorials on how to develop and remediate accessible digital documents (General introduction; Word, Pdf, Excel, and PP) were developed and customized for English speakers in Q1 and customized for French speakers in Q2.
- Regional Workshop Accessible Americas V: ICTs for ALL. The regional event will take place in Jamaica in November 2018. Coordination with host country was conducted during the first months of 2018 to set the date and venue and establish minimum requirements to make this an accessible event for persons with disabilities. All parallel activities such as the ITU-SAMSUNG mobile application contest, the regional assessment on ICT accessibility and the manual of good practices were initialized and are currently ongoing.
- Awareness on ICT Accessibility Policies was raised among stakeholders in Sudan as part of the assistance to formulate the national ICT Accessibility Policy of Sudan.
- Awareness on ITU-D's work activities, events, as well as key resources made available to support our Members in implementation of ICT accessibility globally, were shared among over 500 key thought leaders, professionals, corporations, service organizations and related representatives of the assistive and accessible technologies market, during an interactive session on "*Global Accessibility Policy Up-date*" at the 2018 M-Enabling Summit, held from 11 to 13 June in Washington DC, US.
- **Indigenous Peoples**
 - In Q1 the curriculum of the existing course on "Indigenous Radio/Networks" was revised to ensure an overall knowledge of the topic. Enrollment, for a course planned for 100 Indigenous leaders, opened and received over 600 applicants. Following coordination with Fondo Indigena training delivery plans were revised to accommodate three times the original planned target.
 - Development is ongoing for a second, new blended training programme for Indigenous people (online and hands-on/face-to-face training), to build the capacity of Indigenous technicians to ensure the self-sustainability of indigenous community-related networks.
 - Delivery of the online training course on "Communication Innovative Tools for the strengthening of Indigenous Communities of the Americas Region" has received over 600 registrations. ITU will accept 150 in each class and will deliver two classes in 2018 – only one class was planned for this year. The other 300 were invited to attend the two classes planned for 2019. First training will started in July 2018 and the second will start in September 2018.
- **Digital Inclusion – general**
 - 132 digital inclusion programmes and practices were shared on the Digital Inclusion Newslog during January-June 2018, with 4,342 views of the newslog posts. Awareness was raised and these best practices shared among ITU members through the weekly publication of innovative digital inclusion practices and strategies on the ITU-D Digital Inclusion newslog at: <http://digitalinclusionnewslog.itu.int/>.
 - Raised awareness on ICT Accessibility Policies for stakeholders in Sudan as part of the assistance to formulate the national ICT Accessibility Policy of Sudan.

<i>WTDC</i>	<i>Resolutions 1, 5, 9, 11, 15, 20, 21, 22, 23, 30, 32, 55, 58, 68, 76, 77</i>
<i>PP Resolutions</i>	<i>PP Decisions 5, 13 PP Resolutions 25, 30, 32, 33, 34, 36, 37, 64, 70, 71, 131, 139, 140, 175, 184, 198, 202</i>
<i>WTSA</i>	<i>Resolutions 55, 69</i>
<i>WSIS Action Line</i>	<i>Action Lines C2, C4 and C7 and C8 of the Geneva Plan of Action and § 90 of Tunis Agenda for the Information Society</i>
<i>Contributing to SDG Targets</i>	<i>SDGs: 1 (targets 1.2, 1.4, 1.a, 1.b), 4 (targets 4.1, 4.2, 4.3, 4.4, 4.5, 4.a, 4.b), 5 (5.1, 5.5, 5.b, 5.c), 8 (targets 8.2, 8.3, 8.5, 8.6, 8.10, 8.b), 9 (target 9.c), 10 (targets 10.2, 10.3), 11 (targets 11.2, 11.7, 11.c), 16 (target 16.b), 17 (targets 17.6, 17.7, 17.8, 17.17)</i>

4.4 Concentrated assistance to LDCs, SIDS and LLDCs

- BDT improved the capacity of LDCs, LLDCs, and SIDS, shared guidelines and best practices, and provided policy guidance through the report on ICTs, LDCs, and the SDGs – Achieving Universal and Affordable Internet in the LDCs. The report, which was produced in cooperation with the UN Office of the High Representative for Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLs), focuses on ICT infrastructure and affordability developments (SDG 9, Target 9c). It offers a new, three-dimensional framework which classifies LDCs into three categories based on their overall performance across the areas of access, affordability and skills. This will help countries identify areas that are most pressing and where to direct policy and scarce financial and human resources.
- BDT enhanced capacity and expertise in Bolivia and Paraguay, two landlocked developing countries, by sharing guidelines and best practices, and providing policy guidance, through two separate country case study, one on Bolivia and one on Paraguay: Landlocked developing countries (LLDCs) in the Americas: Connectivity challenges and opportunities”.
- To improve access to information and best practices and build capacity, BDT, together with UNCTAD and the *e-Trade for All initiative*, organized the thematic workshop on *ICT access and use in the LDCs, LLDCs and SIDS – Opportunities for sustainable development and trade*. The event, which was organized during the WSIS-18 Forum, highlighted constraints faced by LDCs, LLDCs and SIDS, and provided insights on how to make effective use of ICTs to foster sustainable development.
- BDT built national expertise in Sudan by developing the country’s new Spectrum Pricing Policy Framework, and by training 15 staff from the Telecom and Postal Regulatory Authority (TPRA) on this new framework.
- BDT developed a Spectrum Pricing Policy Framework for Sudan to optimize and standardize the use of spectrum as national scarce resources. The framework was validated during a national training workshop for Sudan organized in Khartoum during 9-13 of March.
- BDT highlighted the importance and potential of ICT infrastructure to foster trade, in particular through e-commerce, in the LLDCs by contributing to the Ministerial Meeting of Landlocked Developing Countries on Trade and Transport in Kazakhstan, May 17-18, 2018.
- BDT awarded 215 fellowships to participants from the Least Developed Countries during the period of 1 January-30 June 2018.

WTDC	<i>Resolutions 16, 17, 18, 21, 25, 26, 30, 33, 36, 37, 50, 51, 52, 53, 57, 60</i>
PP Resolutions	<i>PP Decisions 5, 13 PP Resolutions 25, 30, 32, 33, 34, 36, 70, 71, 123, 124, 125, 126, 127, 135, 159, 160, 161, 193, 202</i>
WRC	<i>Resolution 12</i>
WCIT	<i>Resolution 1</i>
WSIS Action Line	<i>Action lines C4 and C7 of the Geneva Plan of Action and §§ 9, 23, 26, 49, 59, 87 and 95 of the Tunis Agenda for the Information Society</i>
Contributing to SDG Targets	<i>SDGs: 1 (target 1.4), 3, 4 (targets 4.3, 4.5, 4.6, 4.a, 4.b), 5 (target 5.b), 6, 8 (target 8.5), 9 (targets 9.1, 9.2, 9.5, 9.a, 9.c), 10 (targets 10.2, 10.b), 11 (targets 11.1, 11.2, 11.7), 12 (target 12.b), 13 (target 13.b), 14, 15, 16, 17 (targets 17.7, 17.8, 17.9, 17.18)</i>

Objective 5

“Enhance environmental protection, climate change adaptation and mitigation and disaster management efforts through telecommunication/ICTs”

The results achieved during the period of January to June 2018 are as follows:

5.1 ICTs and climate-change adaptation and mitigation

- The Global E-waste Monitor 2017, which was published by the Global E-waste Statistics Partnership (ITU, UNU, ISWA), has been translated into all six official ITU languages.
- BDT built capacity on e-waste during a one-day training workshop on E-waste statistics, during the ITU Green Standards Week. The training, which was attended by 80 participants, was organized in collaboration with the Global Partnership on E-waste Statistics. It focused on providing an overview of the current statistics on e-waste and the methods of producing electronic waste statistics at a national level to help more countries generate e-waste data.
- BDT built capacity on Electromagnetic Fields (EMF) considerations in sustainable environment including its measurements methods and related policy in a regional ITU Forum & Training on “With ICTs everywhere - How safe is EMF?” organized part of the ITU Green Standard Week “GSW” events and kindly hosted by Universal Communications Service Access Fund (UCSAF) and Tanzania Communications Regulatory Authority (TCRA). The forum held on 10 April 2018. The Forum on EMF attended by more than 80 participants.
- BDT raised awareness about the global e-waste challenge and built synergies with UN and public sector partners when during the WSIS Forum 2018 it organized a high-level dialogue session on “Building the E-waste Coalition”. This event was organized as part of ITU’s role in the Environmental Management Group (EMG) and together with UN Environment. A letter of Intent was signed by all the Heads of the participating UN entities to consider concrete action and wide coordination and collaboration on tackling e-waste.
- As part of the process to build an E-waste Coalition, all UN agencies that signed the Letter of Intent during the WSIS Forum 2018, the World Business Council for Sustainable Development (WBCSD), and under the overall leadership of the World Economic Forum (WEF) are preparing a joint report on the vision towards the circular economy, with a focus on e-waste. This report will increase awareness about the need to address the e-waste challenge and provide selected policy guidance to the public and private sector.

- BDT built capacity and raised awareness on the topic of climate change, disaster management and the role of ICTs by organizing a session on “E-Environment: Multi-hazard Early Warning Systems and the Role of ICTs”. This event, which took place during the World Summit on the Information Society Forum 2018, was organized jointly with WMO. It highlighted the critical role that ICTs play as an integral component of multi-hazard early warning systems (MHEWS) to monitor the environment and to effectively disseminate alerting messages of different type of hazards to those at risk.
- BDT published the Handbook for the development of a policy framework on ICT/e-waste to help build capacity and guide countries in developing e-waste policies. This handbook provides guidance on the key aspects to be taken into account when designing, implementing and improving a legal, regulatory and policy framework on ICT/e-waste. The proposed framework is intended to facilitate the management of ICT/e-waste based on the concepts of sustainable development, green ICT and the circular economy.
- BDT published the Developing an E-waste National Policy and Regulatory Framework for Malawi, which outlines a national policy and regulatory framework, including a strategy and action plan for electrical and electronic waste (e-waste) management in Malawi. BDT is finalizing the establishment of the e-waste pilot plan project that is jointly developed by BDT and Universidad Nacional de La Plata in Argentina. The project is in its final phase of implementation and the e-waste pilot plant will soon be operational.
- As a part of its role in disaster risk reduction in the Caribbean, the ITU has commissioned the deployment of a mobile multi-hazard Early Warning and Information sharing platform in the region in concert with the regional disaster management agency CDEMA.
- BDT is finalizing the development of a report on Successful Electronic Waste Management Initiatives that will provide information of different e-waste management initiatives in 6 different countries around the world.
- The ITU is preparing the details for an Emergency Telecommunications Workshop in Antigua. We are discussing details with the intended host country with a mid-August Date in mind. Also, under this Action ITU is undertaking a study, “Assessment of Emergency Telecommunication plans and systems in the Caribbean Region for broadcasters.” This is a follow up from the study done earlier for telecommunications in the region. All these will be congruent to the Emergency Telecommunications WINLINK Project which addresses in large measure, “The use of ICTs for emergency and disaster situations in the Americas region”.
- Enhanced cooperation through participation in 50th session of ESCAP/WMO Typhoon committee in Vietnam in February 2018.

<i>WTDC</i>	<i>Resolutions 17, 21, 30, 32, 37, 50, 52, 53, 66</i>
<i>PP Resolutions</i>	<i>PP Decisions 5, 13 PP Resolutions 25, 71, 182</i>
<i>WTSA</i>	<i>Resolution 73</i>
<i>WSIS Action Line</i>	<i>Action Line C7 (e-environment) of the Geneva Action Plan is closely linked to Output D.5.1</i>
<i>Contributing to SDG Targets</i>	<i>SDGs: 3 (target 3.9), 5 (target 5b), 9, 11 (targets 11b), 13 (targets 13.1, 13.2 and 13.3), 14, 15</i>

5.2 Emergency Telecommunications

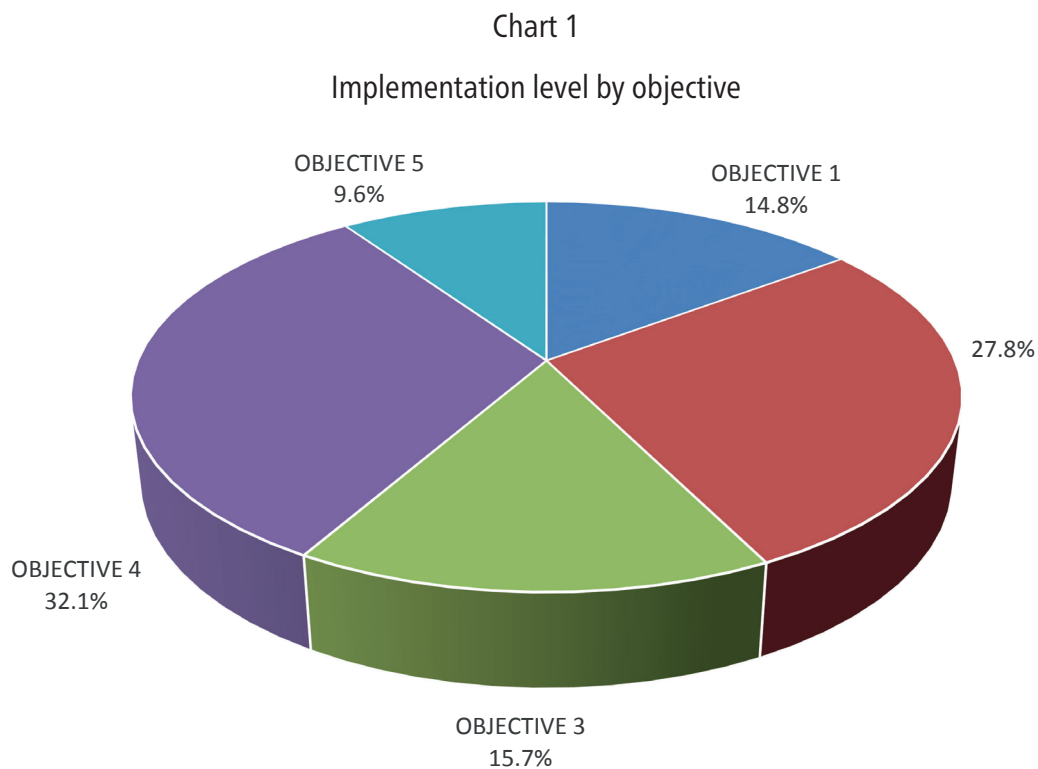
- BDT built disaster preparedness in Zambia by completing the implementation of two early warning systems (EWS) in Mbeta Island and Kasaya Village in Zambia. The systems will be used to provide early warnings to population on flooding and mudslides.
- BDT strengthened the ability of countries to coordinate disaster relief efforts and cope with the immediate effects of disasters by providing emergency telecommunication equipment to Tonga and Papua New Guinea. Emergency disaster response to Tonga followed the destruction caused by Tropical Cyclone Gita that hit the island in February. BDT also assisted Papua New Guinea after the devastation caused by a 7.5 magnitude earthquake that struck in February.
- BDT built capacity and raised awareness on the topic of climate change, disaster management and the role of ICTs by organizing a session on “E-Environment: Multi-hazard Early Warning Systems and the Role of ICTs”. This event, which took place during the World Summit on the Information Society Forum 2018, was organized jointly with WMO. It highlighted the critical role that ICTs play as an integral component of multi-hazard early warning systems (MHEWS) to monitor the environment and to effectively disseminate alerting messages of different type of hazards to those at risk. Participants had the opportunity to highlight some concrete solutions and discuss the importance of MHEWS checklist for a better collaboration among various stakeholders, including disaster risk management agencies, meteorological and geological services, ICT regulators, NGOs, UN entities and private ICT operators.
- BDT is increasing regional and national capacity by working on guidelines for the development of National Emergency Telecommunications Plans (NETP) to be shared with Member States as a guiding document for development and implementation of NETPs. BDT is preparing technical assistance in the development of the NETPs in Samoa, Vanuatu, and Guatemala.
- A panel session on Early Warning Systems was organized jointly with the ITU-D Study Group 2 Question 5/2 on “Utilizing telecommunications/ICTs for disaster risk reduction and management”. This session took place on 8 May 2018 and focused on disaster prediction and detection, emergency alerting, and safety confirmation and evacuation guidance.
- Emergency Communications for Central America countries, including communications equipment and the development of NEPTs. ITU is currently implementing the project “Proyecto piloto para el uso de las TIC para situaciones de emergencia y desastres en la región de las Américas” to assist and support Central American countries (Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua y and Panamá) in improving their capabilities of emergency telecommunications and to improve response to emergencies and disasters. Beneficiary countries have received an emergency tool kit that will allow their integration into a regional network of emergency Winlink-based telecommunications. Winlink is a solution developed and administered by the radio amateur community. The technical specifications have been agreed with the cooperation of IARU and with the collaboration of COMTELCA and CITEL. ITU, AIRU at the international level; COMTELCA and CEPREDENAC at the sub regional level and Administrations, Disaster Response agencies and radio amateur associations at the national level; are cooperating towards the installation process, the final configuration and capacity building. A similar project has been designed to assist Caribbean countries.
- ITU is undertaking a study on “Assessment of Emergency Telecommunication plans and systems in the Caribbean Region for broadcasters.” This is a follow up from the study done earlier for telecommunications in the region. All these activities are congruent to the Emergency Telecommunications WINLINK Project that is under implementation for the Caribbean (see above).

- The III Regional Workshop: Technologies to mitigate effects of Natural Disasters was organized on 1-2 August in Quito, Ecuador. The event was attended by more than 200 participants.

<i>WTDC</i>	<i>Resolutions 1, 5, 17, 21, 30, 32, 34, 37, 50, 52, 53, 69</i>
<i>PP Resolutions</i>	<i>PP Decisions 5, 13</i> <i>PP Resolutions 25, 37, 71, 98, 136, 140, 182, 202</i>
<i>WRC</i>	<i>Resolutions 646, 647</i>
<i>WCIT</i>	<i>Resolution 2</i>
<i>WSIS Action Line</i>	<i>Action lines C7</i>
<i>Contributing to SDG Targets</i>	<i>SDGs: 3 (target 3.9), 5 (target 5b), 9, 11 (targets 11b), 13 (targets 13.1, 13.2 and 13.3), 14, 15</i>

Implementation level by Objective (Result Based Management perspective*)

Chart 1 below provides a distribution of the actual use of the resources among the five objectives of the sector for the period of January to June 2018.



* Based on time allocation of staff members

Highlights of the operational plan implementation

This report highlights the results achieved as regards the implementation of the Operational Plan for the period 1 January to 30 June 2018 for the Telecommunication Development Sector. It also provides information by objectives and regions.

Overall implementation level



The operational plan framework provides a thorough view of the implementation level of the different objectives, outputs and actions



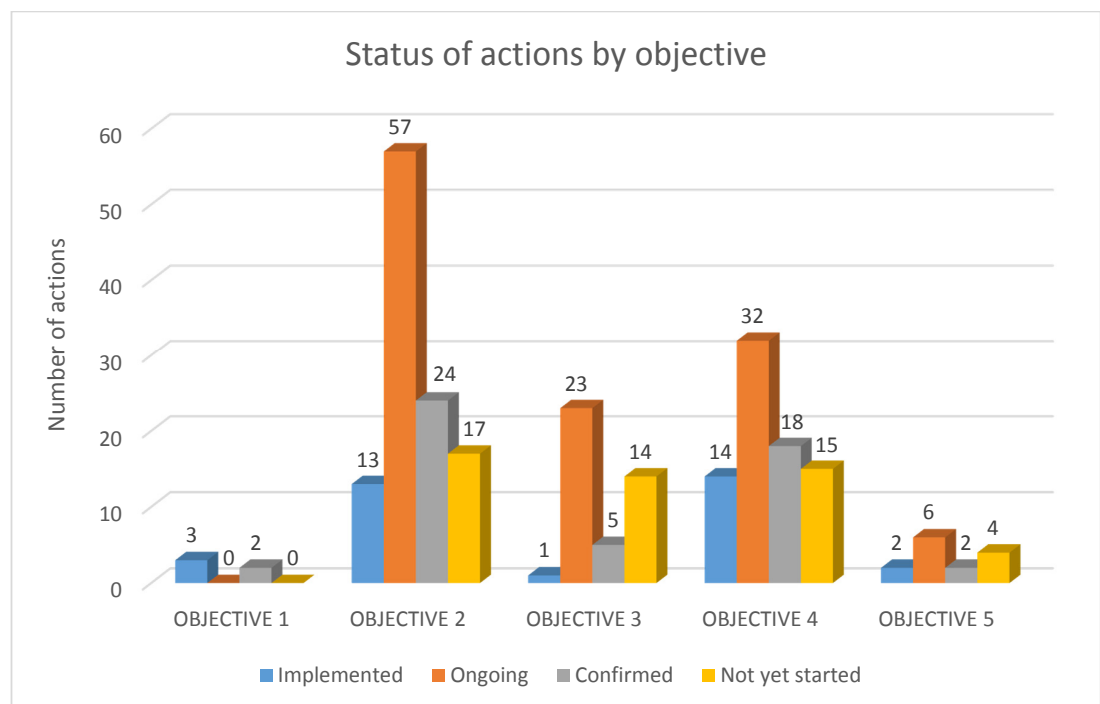
As at 30 June 2018, out of a total of 252 actions planned for 2018

- 33 actions have been implemented
- 118 actions are ongoing (the activities have started and funds may have been activated)
- 51 actions are confirmed (the exact dates of the activities are known and funds may have been activated)
- 50 actions have not yet started (the budget has been approved but no date has been planned for the activities and no funds have been activated)

Implementation level by objective

Chart 1 below highlights, in terms of number, the status of actions (implemented, ongoing, confirmed, not yet started) by objective for period 1 January to 30 June 2018.

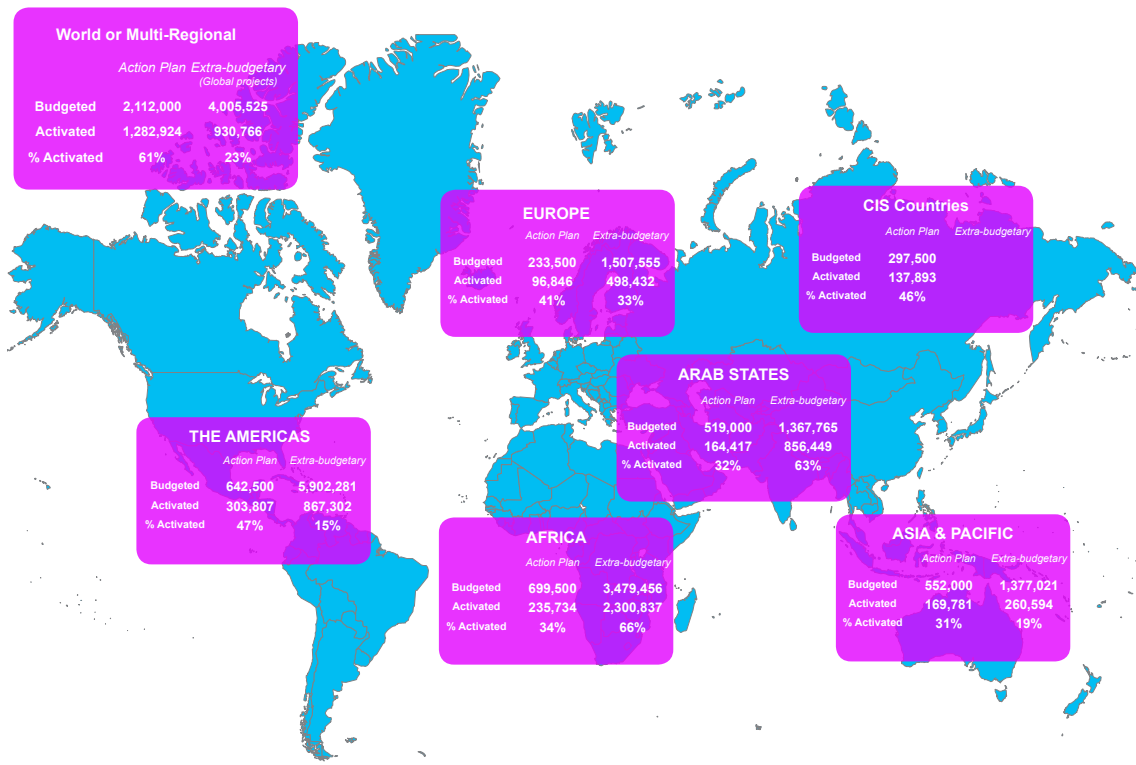
Chart 1



Budget implementation level by regions (in Swiss francs)

Chart 2 below highlights the expenditure level by regions for the period of January to June 2018.

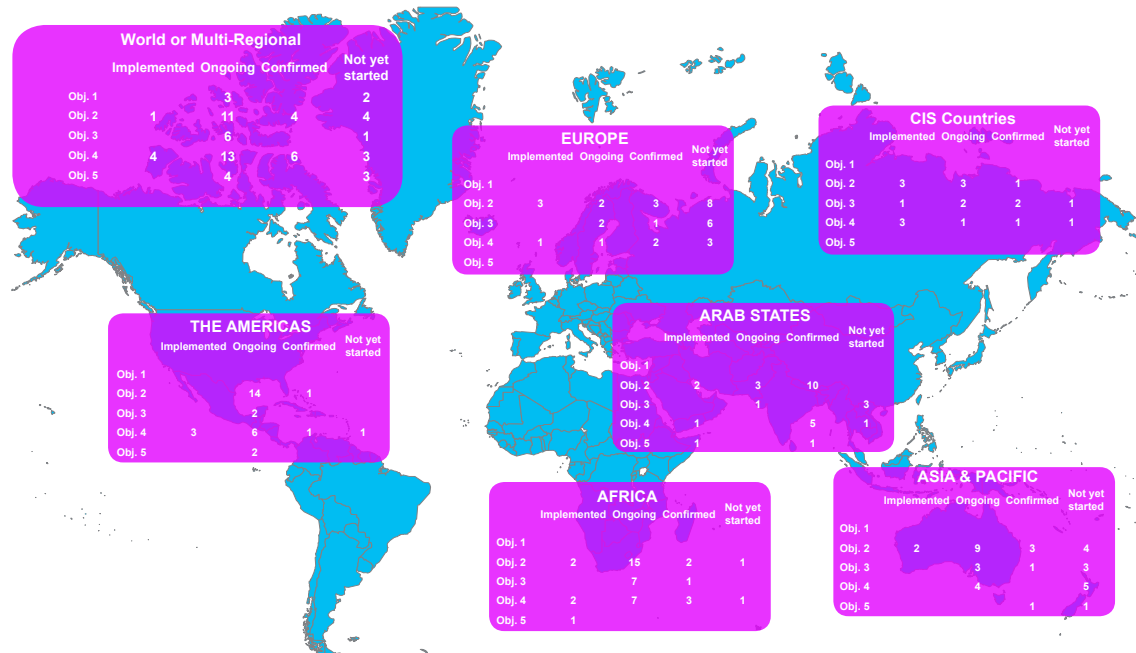
Chart 2



Implementation level by objectives and regions (number of actions)

Chart 3 below shows, in terms of number, the implementation level of actions by objectives and regions for the period of January to June 2018

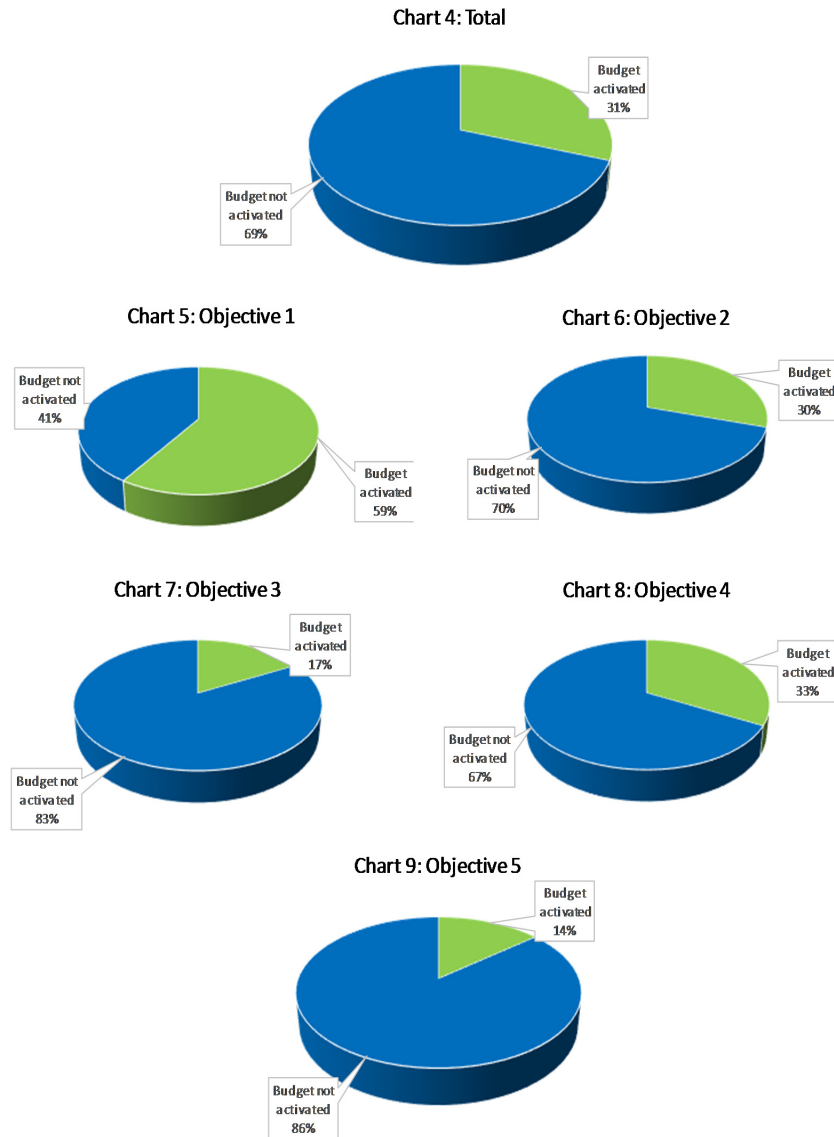
Chart 3



Budget implementation level by objectives

Chart 4 shows the global budget implementation level and charts 5 to 9 highlight the budget activated¹ for each objective to the end of June 2018.

Chart 4



¹ Budget activated: Amount of the budget of the action which has been committed and/or spent.

Highlights of the financial plan implementation

This report highlights the expenditure level as at 30 June 2018 for the Telecommunication Development Sector, including the Bureau (BDT). It also provides information by objectives and outputs.

Result-based budget statement by objectives

Table 1 below provides the expenditure level by objectives in a Result Based Budget perspective as at 30 June 2018.

Table 1
(in thousands of Swiss francs)

Strategic objectives	Budget	Actual	Balance	Level of implementation 06/2018
Objectives of ITU-D				
D-1 Foster international cooperation on telecommunication/ICT development issues	4,120	1,872	2,248	45.4%
D-2 Foster an enabling environment for ICT development and foster the development of	7,738	3,520	4,218	45.5%
D-3 Enhance confidence and security in the use of telecommunications/ICTs, and roll-out of relevant applications and services	4,370	1,781	2,589	40.8%
D-4 Build human and institutional capacity, provide data and statistics, promote digital inclusion and provide concentrated assistance to countries in special need	8,935	3,864	5,071	43.2%
D-5 Enhance environmental protection, climate-change mitigation and adaptation, and disaster-management efforts	2,672	1,058	1,614	39.6%
Costs of ITU-D Strategic Goal	27,835	12,095	15,740	43.5%



The financial framework within which ITU-D operates requires rigorous forecast and management of the resources available



Financial statement for the Telecommunication Development Sector

Table 2 below shows by section the ITU-D expenditures as at 30 June 2018. As at 30 June 2018, expenditures amounted to CHF 12.1 million or 43.5 % of the ITU-D budget for 2018.

Table 2
(in thousands of Swiss francs)

		Budget	Expenditures as at 30/06/2018	Balance	Level of implementation
Section 5	Telecommunication Development Advisory Group	107	101	6	94.4%
Section 6	Study Group	429	216	213	50.3%
Section 7	Activities and programmes	4,600	1,274	3,326	27.7%
Section 9	Bureau	22,699	10,504	12,195	46.3%
TOTAL		27,835	12,095	15,740	43.5%

Financial statement by objectives and outputs

Table 3 below shows the expenditures by ITU-D objectives and outputs as at 30 June 2018.

Table 3
(in thousands of Swiss francs)

		Budget	Expenditures	Balance	Level of implementation 06/2018	Level of implementation 06/2017
Objective 1	Foster Int. cooperation on Tel./ICT Dev. Issues					
	WTDC				<i>n/a</i>	8.2%
	RPM				<i>n/a</i>	100.0%
	TDAG	107	101	6	94.4%	84.8%
	STG	429	216	213	50.3%	94.8%
	Subtotal Objective 1	536	317	219	59.1%	46.1%
Objective 2	Foster an enabling env. for ICT dev.	1,972	600	1,372	30.4%	30.6%
Objective 3	Enhance confidence and security	794	132	662	16.6%	27.0%
Objective 4	institutional capacity	1,474	492	982	33.4%	40.6%
Objective 5	protection, climate-change	360	50	310	13.9%	18.6%
Activities and prog.	Subtotal Objective 2 to 5	4,600	1,274	3,326	27.7%	32.2%
Total ITU-D activities	Objective 1 to 5	5,136	1,591	3,545	31.0%	36.3%

Financial statement for the Telecommunication Development Bureau

Table 4 below highlights by category of expenditure the expenditures for the Telecommunications Development Bureau as at 30 June 2018. As at 30 June 2018, expenditures amounted to CHF 10.5 million or 46.3% of the Bureau budget.

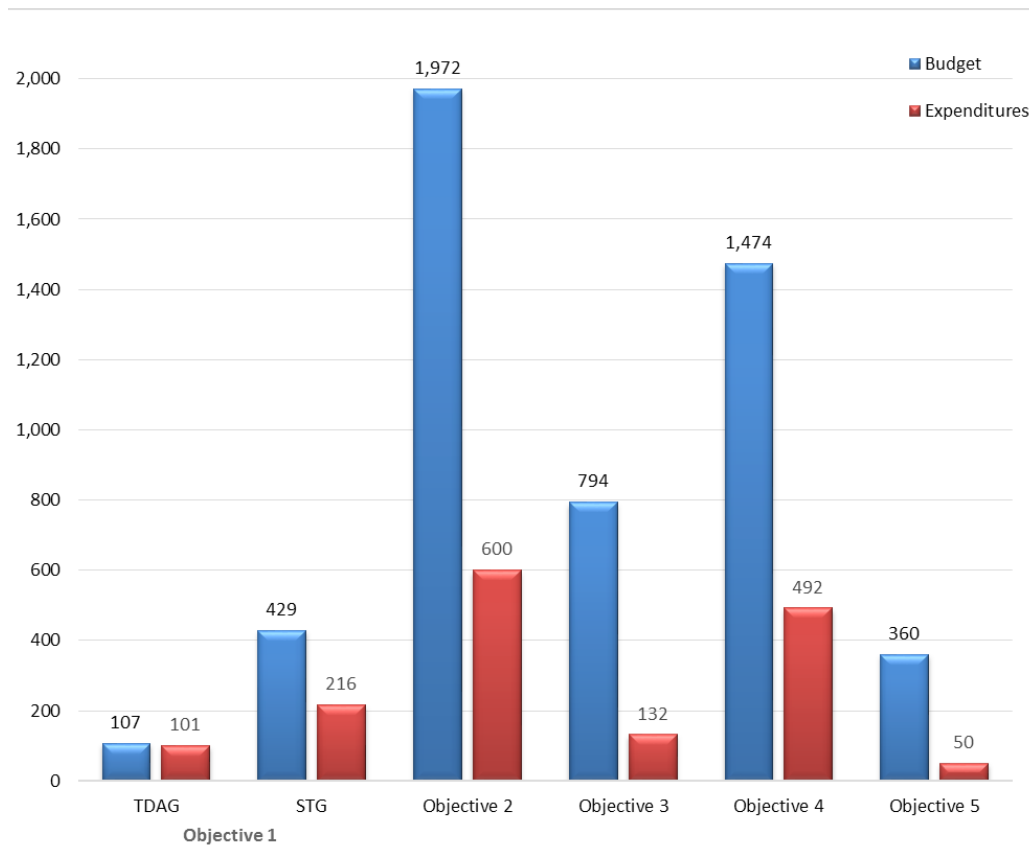
Table 4
(in thousands of Swiss francs)

	Budget	Expenditures	Balance	Level of implementation 06/2018	Level of implementation 06/2017
<i>Categories</i>					
1 Staff costs	16,220	7,784	8,436	48.0%	47.3%
2 Other-staff costs	5,366	2,181	3,185	40.6%	44.4%
3 Mission expenses	450	331	119	73.6%	37.7%
4 Contractual serv.	119	70	49	58.8%	17.3%
5 Rental & mainten.	69	8	61	11.6%	21.1%
6 Purchase of equipmnt	78	23	55	29.5%	70.4%
7 Acquisition, furnit.	144	40	104	27.8%	12.9%
8 Utilities & services	144	44	100	30.6%	48.5%
9 Auditing, inter-agenc.	109	23	86	21.1%	48.3%
TOTAL	22,699	10,504	12,195	46.3%	45.6%

Level of implementation by objectives

The chart below shows the budget and expenditures for ITU-D activities by objectives as at the end of June 2018.

(in thousands of Swiss francs)



From Strategy to Execution

The progressive improvements of the Union's budgetary and financial structure reached a significant turning point with the introduction of the result-based budgeting and result based management.

In addition, the introduction of the re-structured operational plan of the Telecommunication Development Sector enhanced the integration between strategic planning, operational planning and financial planning.

The primary purpose of this performance report is to provide a quarterly assessment of the implementation of the BDT strategic, financial and operational plans using several facets and dimensions.

This report provides an assessment of the implementation of the strategic, operational and financial plan.

Strategic

The quarterly assessment of the strategic plan implementation provides a means for monitoring the implementation of the mission, objectives, outputs and priorities of the Telecommunication Development Sector.

Operational

The quarterly review of the operational plan puts emphasis on the outputs of the Sector as well as on the actions and activities undertaken by the Telecommunication Development Bureau (BDT) in connection with the implementation of these outputs.

It provides information regarding the implementation level of the outputs and actions as well as other pertinent operational data.

Financial

The financial quarterly reports highlight the financial elements of both the strategic and the operational plan.

It provides an overview of the budgetary performance for the period as well as the annual year end expenditure forecast which in turn may allow management to adjust its plans in order to achieve optimal budget performance and implementation of activities.

