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| **Telecommunication DevelopmentAdvisory Group (TDAG)****25th Meeting, Geneva, 24-27 March 2020** | C:\Users\comas\AppData\Local\Temp\Rar$DRa0.735\jpg\ITU official logo_blue_RGB.jpg |
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| Director, Telecommunication Development Bureau |
| 2019 progress report on the implementation of the Buenos Aires Action Plan |
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| **Summary:**In 2019, BDT began a journey of change to create a Bureau that is becoming more relevant and able to keep pace with the fast-changing environment in the development space it serves, a bureau that responds effectively to the needs of Member States and Sector Members, and one that can demonstrate impact and results: a Fit4Purpose BDT. Following extensive internal consultations, BDT has adopted new innovative ways of working, laying the foundations that will ensure a more effective implementation of the [Buenos Aires Action Plan](https://www.itu.int/en/ITU-D/Conferences/WTDC/WTDC17/Documents/WTDC17_final_report_en.pdf). This report features some of the key results of 2019 for each thematic priority as progress is made towards the implementation of the Buenos Aires Action Plan.**Action required:**TDAG is invited to examine this report and provide guidance as deemed appropriate.**References:**WTDC-17 Buenos Aires Action Plan |

**Introduction**

In 2019, BDT began a journey of change to create a Bureau that is able to keep pace with the fast-changing environment in which it serves, that responds effectively to the needs of Member States and Sector Members, and that is more relevant and demonstrates impact and results: a Fit4Purpose BDT. Following extensive internal consultations, BDT has adopted new innovative ways of working, laying foundations that will ensure timely and efficient implementation of the [Buenos Aires Action Plan](https://www.itu.int/en/ITU-D/Conferences/WTDC/WTDC17/Documents/WTDC17_final_report_en.pdf).

The BDT journey for change is a participatory and open consultative process, which relies heavily on feedback and discussion with Member States and Sector Members. This consultative process has helped to streamline priorities and goals, accelerating BDT responsiveness while strengthening its impact.

BDT efforts towards digital transformation through meaningful connectivity are people centric, where the focus is on listening to the people who BDT is trying to reach, allowing for a better assessment of their needs to improve their lives. The services offered by BDT need to provide real value and impact to the people it serves.

For this purpose, BDT has adopted a cluster-based approach. The clusters, defined by the programmes of the Buenos Aires Action Plan, will sharpen BDT focus on thematic priorities, and thus strengthen the impact for ICT development, while also facilitating coordination and synergy across key programmes, projects, and initiatives.

Furthermore, the organization of the work programme around thematic priorities will improve delivery of:

* the WTDC-17 goals and objectives;
* the Connect 2030 agenda; and
* the 2030 Sustainable Development Agenda.

To ensure an efficient and effective implementation of the BDT work programme, the Bureau has expanded its results-based management (RBM) approach beyond the one introduced in 2006 to address both the planning and implementationphases. For this purpose, complete theories of change for each BDT thematic priority have been developed, which will guide the work programme implementation, and serve as tools for monitoring progress towards meaningful connectivity.

BDT has made substantial progress with the development of a comprehensive RBM framework, including all supporting theory of change building blocks, such as:

1. impact pathways, which follow thematic activity workstreams to identify the delivered outputs, the reached target recipients, the changes in capacity of the recipient population, and the resulting behaviour changes, translating into wider impact,
2. the articulation of the underlying assumptions and operational risks, which allow to monitor where progress is stalling or blocked, and based on this feedback to quickly learn and readjust the initial planning assumptions of the work programme to bring it back on track,
3. SMART key performance indicators (KPIs), which provide the qualitative or quantitative tools to continuously measure and record our achievements towards the articulated medium- and longer-term thematic goals.

The RBM approach also re-emphasizes BDT focus on partnering with a wide range of stakeholders, including other United Nations agencies, other funding agencies, Member States and Sector Members, both to reduce the risks as well as increase scope and impact as outlined in the impact pathways. This complete RBM framework will substantially enhance the services and enable BDT to show and communicate impact and value creation in improving people’s lives.

This report features some of the key results of 2019 for each thematic priority as progress is made towards the implementation of the Buenos Aires Action Plan.

Against this backdrop, BDT will continue in 2020 to strengthen its focus on the thematic priorities of the Buenos Aires Action Plan for sustainable impact and advance digital transformation for all in 2020 and beyond. 2020 will also offer an opportunity to build on the adoption of new technologies and develop and expand existing methodologies and inspire others through sharing of best practices.

**2019 PROGRESS REPORT**

**1. Capacity development: Building a digitally competent society**

1.1 **ITU Academy platform redesigned**

The [ITU Academy portal](https://academy.itu.int/) was redesigned to facilitate a more user-friendly and secure access to ITU capacity development activities, courses and workshops in the field of information and communication technologies and digital development. The training portfolio ranges from general programmes for government policy-makers and regulators, professional business-focused curricula for senior ICT executives and managers, to specialized programmes for technical and operational staff and accredited academic programmes. The ITU Academy portal has also become a tool for digital inclusion as the training offerings have been widened to include ICT accessibility and training courses targeted at indigenous and marginalized communities.

The ITU Academy registered 2000 additional users in 2019 for a total of over 10 200 users, and 61 countries around the world are already using the ITU Academy platform.

1.2 **Centres of excellence network**

In January 2019, a new cycle of the ITU Centres of Excellence (CoE) network programme started. A total of 29 institutions across the globe were selected to operate as ITU Centres of Excellence during the new period, which will last until December 2022. Following the initial round of steering committee meetings, the CoEs delivered training in 15 priority areas, covering topics such as wireless and fixed broadband, cybersecurity, digital economy, Internet of Things (IoT), spectrum management, innovation and entrepreneurship, policy and regulation. In 2019, during the first year of operation, more than 90 certified training courses were delivered to over 2 100 participants worldwide.

1.3 **2nd ITU-Academia Partnership meeting**

The 2nd ITU-Academia Partnership [meeting](https://www.itu.int/en/ITU-D/Capacity-Building/Pages/events/2019/academia2019.aspx) took place in Atlanta, Georgia, United States of America, in December, under the theme *Developing skills for the digital era*. It brought together representatives from universities and higher education institutions from all over the world with an interest in the topic of digital technologies.

During discussions, participants highlighted the need for universities to increase new course offerings to the market by speeding up decision-making processes and reducing bureaucracy, especially in public, state-funded academic institutions. The discussions and conclusions of this two-day meeting provided food for thought on the role of universities in the digital economy and how partnerships with organisations such as ITU can further strengthen the role of universities. The participants encouraged ITU to consider creating regional or global think tanks hosted by academic institutions and to provide more opportunities for universities to have advisory roles in specific activities of ITU.

1.4 **Digital Transformation Centres initiative**

The first phase of the Digital Transformation Centres (DTC) initiative (*Empower communities, close the digital skills gap*) was launched in partnership with Cisco. This new global network of centres will accelerate the uptake of digital technologies among citizens and boost the capacity of young entrepreneurs and SMEs to succeed. This people-centred project will speed up digital transformation, reaching into the heart of communities to empower people with the digital competencies they need to thrive. ITU and Cisco are the founding partners and invite new partners to join to help bridge the digital skills gap.

1.5 **Digital Skills Insights 2019**

The third issue of the [publication](https://academy.itu.int/digital-skills-insights-2019) (previously called *Capacity Building in a Changing ICT Environment*) was released in August and features eight articles from international experts, taking a critical and analytical approach towards the subject of capacity and digital skills development. The first set of articles provides a broad overview of the discussion on digital literacy frameworks, new methods of teaching and learning in view of digital developments as well as new capacity building concepts and initiatives in the digital age. This is followed by a set of articles that showcase concrete examples of the impact of new technologies on skills gaps and skills development in selected developing countries.

1.6 **ITU-ILO Digital Skills Campaign**

ITU continued to lead the [Digital Skills Campaign](https://www.itu.int/en/ITU-D/Digital-Inclusion/Youth-and-Children/Pages/Digital-Skills.aspx), which was launched in 2016 as one of eight thematic priorities under the ILO Global Initiative on Decent Jobs for Youth. The campaign seeks to equip young women and men with the skills needed for the digital jobs of today and tomorrow. By 2019, the campaign had received commitments to train more than 15 million young people with job-ready, transferable digital skills by 2030 – more than triple the initial target of 5 million people.

1.7 **National capacity development**

Certified training was given to the Government of Eritrea on advance technologies, roaming, and mobile money.

Concentrated assistance was provided to Burundi with two nationals trained in the ITU Centre of Excellence in Yaoundé, Cameroun, on broadband and in Kampala, Uganda on a cyber-drill exercise. Assistance was also provided to Kyrgyzstan.

1.8 **Regional capacity development**

Countries from the Arab States region were trained on satellite communications (co-organized with ITSO), 5G (co-organized with GSMA), and Internet governance (co-organized with ICANN, ISOC, RIPE NCC, and the Diplo foundation).

The digital policies programme to re-sensitize government officials to the use of ICTs in the Caribbean provided public servants with guidance on making policy, legislative, and regulatory decisions.

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| **REGIONAL INITIATIVES**Africa: strengthening human and institutional capacity building* 532 girls learnt coding in a series of workshops of the African Girls can Code Initiative
* The ITU-ILO programme on boosting decent jobs and enhancing digital skills for youth in Africa’s digital economy was developed by youth, for youth, in Africa.
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**2. Cybersecurity: Creating a trusted cyberspace for all**

2.1 **ITU Global Cybersecurity Index (GCI)**

The third [ITU Global Cybersecurity Index](https://www.itu.int/en/ITU-D/Cybersecurity/Pages/global-cybersecurity-index.aspx) (GCI) shows considerable improvement in commitment to cybersecurity worldwide. More countries have national cybersecurity strategies (NCS), national plans or policies, response teams, and specific legislation to counter the threats. At the same time, there remains a gap between regions. In addition, there is a significant gap between many countries in terms of knowledge including cybercrime legislation, national cybersecurity strategies, computer emergency response teams (CERTs), awareness and capacity development to spread out the strategies, and capabilities and programmes in the field of cybersecurity.

The fourth version of the Global Cybersecurity Index survey, with an improved questionnaire and methodology, has been launched.

2.2 **Child online protection (COP)**

A multi-stakeholder expert working group, consisting of more than 50 organisations and individual experts, started the review of the [Child Online Protection Guidelines](https://www.itu.int/en/cop/Pages/guidelines.aspx), which were first issued in 2009.

In 2019, substantive regional efforts were undertaken to address child online safety issues. In Africa, discussions started with Chad, Kenya, Malawi, and Rwanda on the implementation of national strategy frameworks. In particular, the COP Regional Forum held in Ghana discussed several issues related to child online protection in Africa and brought together a wide range of experts to analyse solutions and possible measures to be undertaken. An outcome of the forum was for ITU Regional Office for Africa to coordinate Africa Safer Internet Day Celebrations in the Africa region. In the Asia-Pacific region, assistance was provided for the development of the ASEAN Regional Framework on Child Online Protection in coordination with other partners, including such as TELSOM/TELMIN. The regional framework builds upon the COP Guidelines. Other activities took place in Europe, as part of the regional initiative on enhancing trust and confidence in the use of ICTs.

The [Council Working Group](https://www.itu.int/en/council/cwg-cop/Pages/default.aspx) on COP continues to meet twice every year. The group enables all concerned stakeholder groups – from governments and international and intergovernmental organizations, to the private sector and civil society – to consider, deliberate on, review, and formulate actions and policies to better protect our children online.

Complementing and reinforcing the work on the COP Guidelines and ongoing work programme, ITU also serves as the Secretariat of the Broadband Commission for Sustainable Development. The Commission was set up almost 10 years ago under the UN umbrella to help accelerate technology as a driver of global development. Specialized Working Groups focus on urgent issues. The Working Group on Child Online Safety, led by the World Childhood Foundation and Zain, released its comprehensive [report](https://www.broadbandcommission.org/Documents/working-groups/ChildOnlineSafety_Declaration.pdf) in New York in October 2019. The COP Guidelines were included as a reference and taken as the basis to implement the recommendations of the report.

2.3 **Incident response**

* Four CIRT projects were initiated and implementation is still ongoing in Botswana, Burundi, Gambia, and Malawi. In Kenya, the existing CIRT enhancement is ongoing (to be completed in 2020).
* Through the *Implementation of CIRT services and related capabilities* project, the State of Palestine was assisted in building and deploying the technical capabilities and related trainings for CIRT operations.
* Kiribati and Solomon Islands received assistance to develop their national cybersecurity strategies. Capacity development on CIRT was provided to Papua New Guinea and Vanuatu through the [ITU-DoCA project](https://www.itu.int/net4/ITU-D/CDS/projects/display.asp?ProjectNo=9RAS18061).

2.4 **Capacity development**

* An inter-regional cyber drill (CIS and Asia-Pacific regions) was carried out in Malaysia.
* A cyber drill for the Africa region was organized in Uganda.
* A cyber drill for the Arab States region was organized in Oman to ensure continued collective efforts in mitigating cyber threats among the national computer incident response teams.
* A cyber drill for the Europe region was organized in Romania, as part of the 2019 presidency of Romania in EU.
* Following an invitation from the G20 Presidency, ITU agreed to act as knowledge partner for security in the digital economy priority of the G20 Digital Economy Task Force.

2.5 **National cybersecurity strategies**

The [ITU guide](https://www.itu.int/en/ITU-D/Cybersecurity/Pages/cybersecurity-national-strategies.aspx) on national cybersecurity strategies constitutes a good practice guide that has been used by countries in all regions. In particular:

* A regional workshop, hosted by the Ministry of Informatics and Cyber Security Agency of Indonesia in Jakarta, was dedicated to cybersecurity strategies. On the last day, participants discussed general data protection regulations.
* A regional workshop, hosted by Macedonia, was dedicated to improving national strategies for five Balkan states.
* A regional workshop, hosted by Tunisia, was dedicated to improving national strategies of countries from the Africa and Arab States regions. Twenty countries actively participated (about 32% of attendants were female).
* Three countries received direct assistance to develop and revise national cybersecurity strategies using the guide.

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| **REGIONAL INITIATIVES**Africa: Building trust and security in the use of telecommunications/information and communication technology* Computer incident response team (CIRT) readiness assessment workshops were conducted in Chad and Liberia.
* The national CIRT stakeholders of Gambia were trained on CIRT operations.
* In partnership with Deloitte risk advisory, a cybersecurity landscape review was conducted for Cote d’Ivoire, including on the ITU Global Cybersecurity Index findings. The review helped the country to identify cybersecurity priority initiatives to improve its cybersecurity posture.

Arab States: Confidence and security in the use of telecommunications/ICTs* During the Regional Cyber Security Week for the Arab States region the ITU Arab Regional Cyber Security Centre (ITU-ARCC) fostered information sharing and capacity building in the field of cybersecurity. The week provided a platform for senior ICT and cybersecurity officials from the region to meet with relevant stakeholders and discuss threats, evolution, opportunities and cybersecurity challenges.
* Capacity development and technical assistance was provided to Sudan to improve its strategy on critical information infrastructure protection.

Europe: Enhancing trust and confidence in the use of ICTs* The Moldova Cybersecurity Week was held in Chisinau, Moldova, and supported by ITU. The conference offered networking opportunities and a platform to exchange ideas, discuss and collaborate to drive, through innovation, global cybersecurity strategies and solutions.
* The Cyber Shield 2019 was held in Ankara, Turkey, and was supported by ITU. The event offered a unique opportunity to participate in numerous technical activities in cybersecurity. The main objectives were to increase incident response capabilities and readiness levels, to increase mutual understanding of cyber risks and associated impacts, and to ensure a continued collaborative effort among international cybersecurity stakeholders especially national computer emergency response teams (CERTs) in order to mitigate cyber threats.
* Progress was made in the field of child online protection: an international conference for Europe on keeping children and young people safe online, was co-organized in Warsaw, Poland; a regional study on national approaches for keeping young people and children safe online was drafted for review and opened for consultations with the countries; and assistance was provided to Georgia and Ukraine in the development of a national strategy on child online protection.
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| **STUDY GROUPS**ITU-D study group 2 (2018 - 2021): Question 3/2: Securing information and communication networks: Best practices for developing a culture of cybersecurity.ITU-T study group 17: Security. |

**3. Digital inclusion: Building inclusive policies for equal ICT access**

3.1 **Internet for @ll programme**

The [Internet for @ll](https://www.itu.int/en/ITU-D/Digital-Inclusion/Persons-with-Disabilities/Pages/Internet-for-%40ll.aspx) web-accessibility programme was successfully implemented in Guyana, strengthening the country’s capacity in the creation of accessible digital content, as well as the design and development and maintenance of public websites in an accessible format.

3.2 **Accessible ICT for all in the regions**

*Accessible ICT for all* events were held in Ecuador and Malta. During both events knowledge-sharing sessions on fundamentals of ICT accessibility were conducted with the objective of developing and strengthening regional capacity in ICT accessibility topics, definitions, and trends and raising awareness on the key resources made available by ITU to support the development and implementation of ICT accessibility policies and strategies at national and regional levels. Regional policy-makers and stakeholders validated their improved knowledge and expertise in the area of ICT accessibility and received certification on the topic.

In preparation for both events, regional contests were organized to create and develop mobile ICT applications that would help persons with disabilities.

3.3 **International Girls in ICT Day**

Over 100 countries around the globe celebrated [Girls in ICT Day](https://www.itu.int/en/ITU-D/Digital-Inclusion/Women-and-Girls/Girls-in-ICT-Portal/Pages/Portal.aspx) in 2019. For the first time, the celebrations were taken “on the road” to Addis Ababa, Ethiopia where ITU and the African Union inspired girls and young women to pursue studies and careers in ICTs.

3.4 **African Girls Can Code initiative**

Over five hundred girls (532) participated in coding workshops as part of the [African Girls can Code](https://www.itu.int/en/ITU-D/Regional-Presence/Africa/Pages/African-Girls-Can-Code.aspx), an initiative by ITU, the African Union and UN Women with financial support of ITU and the Royal Danish Embassy in Ethiopia*.*

3.5 **Americas Girls Can Code initiative**

The [Americas Girls Can Code](https://www.youtube.com/watch?v=gkYUlpgasoo) Initiative taught 300 girls how to code through a series of workshops organized with the support of UN Women, the Brazilian Federal Institute, ANATEL, SERPRO, the Municipality of Campinas, the University of Brasilia, UNICEPLAC, Women from Brazil Group, among others.

3.6 **EQUALS Entrepreneurs at ITU Telecom World 2019**

Twenty-four small to medium-sized enterprises (SMEs) led by women from 14 developing countries were given fellowships, out of 140 applications, to attend ITU Telecom World 2019, Budapest, Hungary. The objective was to increase gender-balanced participation and support female entrepreneurship in the industry. The diverse and talented group of women came from sectors such as health, education, electronic commerce, cybersecurity, and IT services. This experience increased visibility of the chosen SMEs, the developing countries they represented, and contributed to the bridging the gender digital divide. This exercise was a deliverable of EQUALS: The Global partnership to bridge the gender digital divide[[1]](#footnote-1).

3.7 **EQUALS in Tech Awards**

The sixth annual [EQUALS in Tech Awards](https://www.equals.org/awards) (formerly GEM-TECH Awards) was held in Germany during the Internet Governance Forum. More than 200 nominations from 68 countries were put forward from stakeholders across the globe. Nigeria had the highest number of nominations, followed by the United States of America, Argentina, Pakistan, and the United Kingdom.

The EQUALS in Tech Awards celebrated five winners in the categories of Access, Skills, Research and Leadership I and II from a pool of 15 outstanding finalists from 12 countries. The awards were made possible through the partnership with the Swiss Federal Office of Communication (OFCOM), the Internet Society, and with support from Inmarsat.

3.8 **ITU-WHO safe listening toolkit**

The [toolkit on safe listening devices and systems](https://www.itu.int/en/ITU-D/Digital-Inclusion/Pages/Digital_Inclusion_Resources/Strategies%2C%20policies%2C%20toolkits/Toolkit_safe_listening_devices/safe_listening.aspx) was published by ITU and WHO to support the implementation of the WHO-ITU-T H.870 global standard in response to the growth of hearing loss particularly in young people as well as the threat to hearing posed by unsafe listening practices and devices. This toolkit provides practical guidance to support countries, industry partners, private sector and civil society groups.

3.9 **Empowerment of indigenous people**

To empower indigenous people and communities through technology, [capacity-building trainings for indigenous communities](https://www.itu.int/en/ITU-D/Digital-Inclusion/Indigenous-Peoples/Pages/default.aspx), tailored to their specific needs and topics of interest, were organized. These trainings take into account self-sustainability aspects and cultural legacy.

3.10 **ITU-ILO-AU youth consultation**

Consultation with youth on how to enhance digital skills for youth were held during the AfriLabs gathering in Addis Ababa, Ethiopia, in November. The event was organized under the ITU-ILO boosting decent jobs and enhancing digital skills for youth in Africa’s digital economy programme, with the support of the African Union.

3.11 **ITU-UNESCO Digital Inclusion Week for the Arab States region**

During the fourth annual ITU-UNESCO [Digital Inclusion Week](https://www.itu.int/en/ITU-D/Regional-Presence/ArabStates/Pages/Events/2019/DIW/DIW.aspx) for the Arab States region several activities were organized to enhance digital inclusion. Activities included assistance to countries to develop ICT accessibility policies, empowering innovators in big data applications for digital inclusion, equipping children with digital financial inclusion literacy, showcasing persons with disabilities with inspiring achievements, and promoting innovations in big data for non-communicable diseases.

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| **REGIONAL INITIATIVES**Asia-Pacific: Harnessing information and communication technologies to support the digital economy and an inclusive digital societyMore than 80 events were held in the region to celebrate Girls in ICT Day. In Thailand, for example, girls and young women were trained on Agritech in partnership with government, UN Agencies, Academia, and industry. This was part of an ongoing programme launched in 2017 to enhance employment opportunities for girls and young women in Thailand.Americas: Accessibility and affordability for an inclusive and sustainable Americas regionITU delivered equipment to assist visually impaired persons in Dominica through the Dominica Universal Access Policy for persons with disabilities. Equipment included: Apple iPad Air Tablet, HumanWare Victor Reader Stream (New Generation), and custom-built HP EliteOne 800 G5 All-in-One desktops. The collaborative assistance empowers persons with disabilities and provides a means of increased inclusiveness and equality. Europe: Accessibility, affordability, and skills development for all to ensure digital inclusion and sustainable developmentA self-paced online training on ICT accessibility was promoted across the region with the engagement of over 200 stakeholders.* A regional competition on [Digital Innovative Solutions for Accessible Europe](https://www.itu.int/en/ITU-D/Regional-Presence/Europe/Pages/Events/2019/IF/Innovative-Digital-Solutions-for-an-Accessible-Europe-Fostering-Growth-for-Start-ups.aspx) was organized and involved over 80 start-ups.
* Papers on ICT accessibility were presented to advance the implementation of the work in field of artificial intelligence, broadcasting, standards and procurement.
* The GARI database was promoted across Europe to enhance knowledge on accessibility features of mobile devices.
* A regional study on ICT Empowered Generation Equality was drafted for review and opened for consultations with UN partners.
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| **STUDY GROUPS**Study group 1 on Question 7/1:  [*Access to telecommunication/ICT services by persons with disabilities and other persons with specific needs*](https://www.itu.int/net4/ITU-D/CDS/sg/blkmeetings.asp?lg=1&sp=2018&blk=21834) defined and agreed to a work plan, which will further focus on the implementation of ITU policies and practices on ICT accessibility, including inclusive education and web accessibility. A knowledge development session on ICT accessibility fundamentals was held for a group of ITU-D SG1 Rapporteur Group participants on 3 October 2019. This helped ITU Member States to: understand key definitions and trends related to ICT accessibility policies and strategies; identify digital accessibility requirements; and envision ICT accessibility as a business opportunity, and the benefits for all involved stakeholders. Participants were also encouraged to sign up for two courses on [ICT accessibility](https://academy.itu.int/training-courses/full-catalogue/self-paced-online-training-ict-accessibility-consisting-3-modules-and-concluding-itu-certification-0) and [web accessibility](https://academy.itu.int/training-courses/full-catalogue/web-accessibility-cornerstone-inclusive-digital-society) respectively that are available in the [ITU Academy](https://academy.itu.int/). A hands-on demo of the revised ITU Academy was also provided. |

**4. Digital innovation ecosystems: Accelerating innovations ecosystems for digital transformation**

4.1 **Innovation challenges**

The [innovation challenges](https://www.itu.int/en/ITU-D/Innovation/Pages/Innovation-Ecosystem-Program-.aspx) served as an open platform for people to present their ideas and projects, which can contribute to the digital transformation of individuals, communities and society through innovation. In 2019, one of the winners from South Africa, a Durban-based entrepreneurial technology company, was recognized for excellence at ITU Telecom World 2019, Budapest, Hungary. The company received USD 1.5 million to replicate its work in other towns in the Durban area and received commitment of almost USD 10 million for “Wholesale Financing” to commercialize its innovations.

4.2 **Innovation forums**

Through the Regional Innovation Forum for the Arab States and Africa regions (held in Brazzaville and Cairo), policy-makers, academics, innovators, and ecosystem builders from 16 countries discussed how to develop agile and collaborative ecosystems conducive to digital innovation. Participants of the innovation forum now have the tools and know-how to critically consider ICT policies and programmes in light of innovation pillars conducive to entrepreneurship and digital innovation.

4.3 **Innovation knowledge sharing**

Selected winners of the ITU innovation challenges discussed their proposals at the Young ICT Leaders Forum held in Busan, Republic of Korea, and attended a boot-camp to develop their ideas further. The forum offered a space where youth change-makers in ICTs can network, connect, and enhance their innovative ideas to create smart communities.

A partnership with the Startup programme of the Government of Hungary ([INPUT](https://inputprogram.com/)) gave winners of the ITU innovation challenges the opportunity to network and connect with other Member State ecosystems at ITU Telecom World 2019, Budapest, Hungary.

As part of the [WSIS innovation track](https://www.itu.int/net4/wsis/forum/2019/Agenda?search=Innovation%20Track#agenda), three sessions were organized to discuss technology trends accelerating digital transformation, national experience sharing, and an innovation culture to accelerate achievements of the SDGs.

4.4 **Innovation assessment and profiles, innovation project advisory assistance**

Technical assistance was provided to Mali, Montenegro, Niger, and the Philippines to develop national digital innovation profile assessments with an aim to assess the opportunities and challenges facing their digital innovation ecosystems.

BDT continues to support the Republic of South Africa in the development of novel ecosystem projects with aim to accelerate digital transformation across keys sectors in the economy. A critical milestone was achieved with the signature of a cooperation agreement between the Republic of South Africa and ITU.

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| **REGIONAL INITIATIVES**Africa: Building digital economies and fostering innovation in Africa* Funding was secured to establish the first ecosystem development hub, also known as the African Digital Transformation Centre for South Africa.
* Through extensive consultative processes with multi-stakeholders from academics, entrepreneurs, entrepreneurial support networks, financiers, public and private sectors, BDT provided technical assistance for the development of digital innovation profiles for Mali and Niger.
* The [ICT-centric innovation ecosystem country review for Kenya](https://www.itu.int/en/ITU-D/Innovation/Documents/Publications/Kenya%20Country%20Review%20-%20ICT%20centric%20Innovation%202019.pdf) offered a comprehensive analysis and recommendations on how future ICT policies can include innovation and digital entrepreneurship policies and programmes.
* Capacity building on sessions on building innovation and entrepreneurship ecosystems were provided to a number of public and private organizations, universities, and research institutions in the Republic of the Congo.

Arab States: Innovation and Entrepreneurship:* Incubators managers and other ecosystem stakeholders in Djibouti and Mauritania were equipped with methodology and tools to support growth and entrepreneurship. The main principles and good practices of business incubation were shared and discussed.
* Capacity building sessions on building innovation and entrepreneurship ecosystems were provided to a number of public and private organizations, universities, and research institutions in Egypt.

Americas: Development of the digital economy, smart cities and communities and the Internet of Things, promoting innovation* The [*Americas* *ICT Innovation Week*](https://www.itu.int/en/ITU-D/Regional-Presence/Americas/Documents/EVENTS/2019/24013/Practical%20Information%20Innovacion%20Uy2019_En.pdf), under the theme *smart rural communities* was organized in Uruguay. The adoption and use of new technologies to create a sound and responsible agriculture sector to enable future smart rural communities was analysed and discussed.

Europe: ICT-centric innovation ecosystems* The Digital Innovation Profile for Montenegro was finalized in preparation of a national project.
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| **STUDY GROUPS**The *ICT Innovation Week* event report contributed to the work of the ITU-D Study Group 2 ([Question 1/2](https://www.itu.int/net4/ITU-D/CDS/sg/rgqlist.asp?lg=1&sp=2018&rgq=D18-SG02-RGQ01.2&stg=2) *Creating smart cities and society: Employing information and communication technologies for sustainable social and economic development*) rapporteur group meeting. |

**5. Digital services and applications: Creating transformative digital strategies and application services**

5.1 **Scaling up digital health**

The impact of the ITU-WHO [Be He@lthy, Be Mobile Initiative](https://www.itu.int/en/ITU-D/ICT-Applications/eHEALTH/Be_healthy/Pages/FAQ-01.aspx) continues to grow. It now works with 11 countries to tackle issues as diverse as cervical cancer, diabetes, and tobacco use. In total, more than 3.5 million people have benefited from this programme. Deliverables of the Be He@lthy, Be Mobile initiative include USD 1.8 million raised from three new partners (Roche, Discovery/Vitality, Santen); continued support to Egypt, India, Philippines, Senegal, Tunisia; implementation started in Burkina Faso and Sudan; a new project in Senegal to detect Diabetic Retinopathy using AI.

A [handbook](https://www.itu.int/dms_pub/itu-d/opb/str/D-STR-E_HEALTH.14-2019-PDF-E.pdf) *on how to implement mTB-Tobacco* has been published and a toolkit developed, and an [mHealth Innovation Hub](https://www.itu.int/en/ITU-D/ICT-Applications/Pages/EU-mhealth-hub.aspx) for the Europe region was established with the European Union and WHO to serve as a platform to share best practices and provide a one-stop place to access guidance on mobile health implementation and scaling up.

5.2 **Building smart villages**

The [Smart Village project](https://news.itu.int/leaving-no-one-behind-nigers-smart-villages-project/) to connect remote areas of Niger to the Internet, created a collaboration between ITU and the [National Agency for Information Society (ANSI)](https://www.youtube.com/watch?v=0uYKKJg00eo) and several other organizations. In addition, ITU and the Digital Impact Alliance (DIAL) developed a methodology for the Niger Smart Village project to guide a common cross- sector digital infrastructure through a whole-of-government approach. This approach generates a more integrated and coordinated services delivery.

5.3 **Developing national digital sectoral strategies**

Several countries developed national digital strategies and roadmaps for agriculture and government services through multi-stakeholder processes and engaging public and private sector.

5.4 **Building capacity on digital services**

Training on digital health was given following a digital curriculum developed by ITU in collaboration with the WHO Africa regional office to scale up digital health in countries in the region, which also gave the opportunity for representatives from ministries of health and ICT to share experiences and lessons learned from their country implementation of digital services.

5.5 **Sustainable cities and human settlements**

The ITU Regional Office for Africa facilitated a workshop on Smart Society for Southern Africa, held in Dar es Salaam, Tanzania, to broaden understanding of concepts, requirements and opportunities to leverage new technologies such as IoTs, AI, big data, for a smart community in countries in the Southern African Development Community (SADC).

5.6 **Collaboration with FAO**

ITU is scaling up its collaboration with FAO following the signature of a cooperation agreement in 2019. ITU and FAO are working together to assist several countries in developing and implementing digital agriculture strategies and roadmaps to create capacities and identify priorities for digital investments to achieve agriculture sector objectives. ITU is also collaborating with FAO to support rural entrepreneurship, investment and trade in Papua New Guinea and Smart Villages initiative in Niger. Several reports were co-published on digital agriculture with FAO on the use of digital and frontier technologies e.g., blockchain, big data, etc. for agriculture. Additionally, ITU is invited to be a member of the advisory committee of the Digital Council for Food and Agriculture that will help governments to identify and maximize the potential of digitalization and establish, expand and protect farmers’ access to digital technologies.

5.7 **Digital Public Goods (DPG)**

ITU is also providing guidance on adopting whole-of-government approaches for investing in shared digital infrastructure that can lead to more rapid scale-up of digital services at less cost and greater return on investment, and how to coordinate investment to make digital public goods available that can enable digital transformation for SDGs. A whole-of-government approach is outlined in the [*SDG Digital Investment Framework*](https://www.itu.int/pub/D-STR-DIGITAL.02-2019) published by ITU and Digital Impact Alliance DIAL.

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| **REGIONAL INITIATIVES**Africa: Building digital economies and fostering innovation in Africa* The ITU-WHO joint project *Using digital health services to accelerate SDGs in the Africa region* was launched to support countries in making full and sustainable use of ICTs in health service delivery that will improve population and individual health and ensure healthy lives and wellbeing for all in the Africa region.

Asia-Pacific: Harnessing ICTs to support the digital economy and an inclusive digital society* E-agriculture: In partnership with FAO, ITU supported the development of the e-agriculture strategy in Mongolia; the implementation of mobile applications in Papua New Guinea; the development of two case studies on blockchain and big data; and human capacity building activities in Papua New Guinea and Mongolia. A joint UN project, led by FAO, on supporting agriculture in areas of Papua New Guinea was also finalised.
* E-Government: Papua New Guinea and Vanuatu were assisted in strengthening their digital government frameworks.
* Trainings and workshops raised awareness of applications in areas such as smart cities, digital government, and IOT applications.

Europe: A citizen-centric approach to building services for national administrations * A workshop on enhancing human life using e-services was held in Geneva, to discuss emerging technologies and services, including AI and ICT accessibility.
* Cooperation between ITU and FAO was strengthened through a special session on digital agriculture strategies organized at ITU Telecom World 2019, Budapest, Hungary.
* Regional studies on national strategies for digital agriculture were elaborated for review by the Member States involved.
* A knowledge exchange event on fostering start-up ecosystems in the field of e-services was held in Prague, Czech Republic.
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| **STUDY GROUPS*** An annual deliverable on a holistic approach to creating smart societies ([Question 1/2](https://www.itu.int/net4/ITU-D/CDS/sg/rgqlist.asp?lg=1&sp=2018&rgq=D18-SG02-RGQ01.2&stg=2): *Creating smart cities and society: Employing information and communication technologies for sustainable social and economic development*) was released. An example of architecture of a smart city is also proposed based on these core design concepts, and a summary of selected country case studies on smart cities is presented. The deliverable is accessible at the following [link](https://www.itu.int/oth/D0717000002/).
* A workshop on new communication technologies for e-health and socio-economic issues was organized in conjunction with ITU-D Study Group 2 (Question 2/2 *Telecommunications/ICTs for eHealth*). This event explored examples of new technologies for e-health and discussed challenges for large-scale adoption and the means to address them. The content exchanged and lessons learned during the workshop will be used as input to the final report of Question 2/2. The workshop programme and presentations can be accessed at the following [link](https://www.itu.int/en/ITU-D/Study-Groups/2018-2021/Pages/meetings/session-Q2-2-oct19.aspx).
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**6. Emergency telecommunications: Building disaster-resilient ICT infrastructure for reduced loss of lives and economic loss**

6.1 **ITU guidelines**

The [ITU guidelines for national emergency telecommunication plans](https://www.itu.int/en/ITU-D/Emergency-Telecommunications/Pages/Publications/Guidelines-for-NETPs.aspx) were prepared to assist national authorities and policy-makers to develop a clear, flexible and user-friendly framework to support and enable the continued use of ICT networks and services in all phases of disaster management. The initial development of national emergency telecommunication plans in 2019 rolled out in Bolivia, Dominican Republic, Guatemala, in the Americas region, and in Papua New Guinea, Salomon Islands, Samoa, Vanuatu, in the Asia-Pacific region. The implementation of these plans will help to build a national disaster-resilient ICT infrastructure by determining the required ICT capabilities for emergency responses, and by establishing a governance framework of roles and responsibilities that will help to reduce loss of life and economic loss. The guidelines were developed though a consultative multi-stakeholder process, engaging ITU Member States, Sector Members and ICT private sector entities, as well as relevant UN entities including the Emergency Telecommunications Cluster (ETC).

6.2 **Emergency communication disaster response**

ITU provided satellite telecommunications equipment to Mozambique and to Zimbabwe to help mitigate the impact of Cyclone Idai that triggered a massive disaster in southern Africa affecting hundreds of thousands if not millions of people. ITU also provided satellite equipment to the Bahamas after the devastation caused by hurricane Dorian as well as providing support to the Crisis Connectivity Charter (CCC) with importation procedures through the Emergency Telecommunications Cluster (ETC).

6.3 **ITU emergency telecommunication roster**

To respond to the increasing demand for support in delivering emergency telecommunication equipment and services when disasters strike, the ITU launched the emergency telecommunication [roster initiative](https://www.itu.int/en/ITU-D/Emergency-Telecommunications/Documents/2019/Special%20Session/CCC.pdf). Suitable ITU staff will be selected and trained on the deployment and use of the current (and future) ITU telecommunication equipment and will be able to support the Emergency Telecommunications Cluster work on the ground, by liaising with national authorities and stakeholders on importation and licensing requirements of telecommunication equipment.

6.4 **Crisis connectivity charter**

To expand ITU work in the area of emergency telecommunications and to support and improve coordination with the satellite and the humanitarian community, ITU joined the [Crisis Connectivity Charter (CCC)](https://news.itu.int/why-itu-is-joining-the-crisis-connectivity-charter-doreen-bogdan-martin/) becoming a principal member. The CCC is a mechanism created between the satellite industry and the wider humanitarian community, to make satellite-based communications more readily available for humanitarian efforts and communities impacted in times of disaster. The Charter was developed by the EMEA Satellite Operators Association (ESOA) and the Global VSAT Forum (GVF) and their members, in coordination with the UN Office for the Coordination of Humanitarian Affairs (OCHA) and the Emergency Telecommunications Cluster (ETC), led by the World Food Programme (WFP).

6.5 **GET-19**

The [3rd Global Forum on Emergency Telecommunications](https://www.itu.int/en/ITU-D/Emergency-Telecommunications/Pages/Events/2019/GET-2019/default.aspx) (GET-19) took place in Mauritius and highlighted the importance of early-warning and monitoring systems and the needs and opportunities for partnerships and cooperation. Furthermore, it addressed challenges and opportunities for technology in the humanitarian context. For the first time, simulation exercises were organized that emphasized the need for better preparedness on the proper actions to be taken when disasters strike. The simulations, organized in cooperation with World Food Programme, illustrated the potential of technology to save lives and showcased the importance of coordination and cooperation, as well as standard operating procedures for disaster response.

6.6 **Disaster Connectivity Map Initiative**

ITU, together with the Emergency Telecommunications Cluster and NetHope, started the development of the Disaster Connectivity Map Initiative. This initiative will provide information on the type, level and quality of connectivity that is available on the ground. The maps will use different data sources, including from mobile network operators, Facebook and others and operate in near real time to guide first responders from governments and humanitarian organisations in their relief efforts.

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| **REGIONAL INITIATIVES**Americas:Disaster risk reduction and management communications* The project for the use of ICTs in emergency and disaster situations in the Caribbean, known as [WINLINK 2000 project](https://www.itu.int/en/ITU-D/Regional-Presence/Americas/Pages/ACTVTS/PRJ/AMS-PRJ.aspx), was started to help Antigua and Barbuda, Barbados, Dominica, Grenada, Guyana, Jamaica, Saint Kitts and Nevis to enhance their emergency telecommunication capabilities and improve emergency and disaster response to help save lives.
* Linked to the deployment of emergency telecommunication equipment to the Bahamas after hurricane Dorian, ITU collaborated with the Utilities Regulation and Competition Authority (URCA) and other stakeholders to provide Internet and other connectivity services to some residents in the affected areas.
* The Virtual Vision App, a real time communications platform for disaster management was developed. It helps facilitate direct, real-time communication before, during and after a hazardous event. The app was tested in the Bahamas in early December.

Arab States: Environment, climate change and emergency telecommunications* A series of trainings and workshops were held on disaster risk reduction and management and in the use of modern technologies for monitoring and early warning in the Arab States region.

Asia-Pacific: Contributing to a secure and resilient environment* A joint project with DoCA supported Papua New Guinea, Samoa, Solomon Islands, and Vanuatu to strengthen national emergency telecommunication planning and build capacity. National emergency telecommunication plans were developed for these Pacific Islands in consultation with the Emergency Telecommunications Cluster (ETC).
* Broadband Global Area Network (BGAN) terminals were dispatched to the Solomon Islands in response to the Rennell Island oil spillage.
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| **STUDY GROUPS**A workshop on *Conducting National Level Emergency Communications Drills and Exercises: Guidelines for Small Island Developing States (SIDs) and Least Developed Countries (LDCs)* was organized in conjunction with the Study Group 2 (Question 5/2 *Utilizing telecommunications/ICTs for disaster risk reduction and management*). This event highlighted the importance of undertaking emergency telecommunication drills at a national level to test and refine readiness to respond in a timely manner when disasters strike. The content exchanged and lessons learned during the workshop will be used as input to a new annual deliverable and to the final report of Question 5/2. The workshop programme and presentations can be accessed at the following [link](https://www.itu.int/en/ITU-D/Study-Groups/2018-2021/Pages/meetings/session-Q5-2-oct19.aspx). |

**7. Environment: Creating a circular economy for ICT equipment**

7.1 **Global E-waste Statistics Partnership**

The Global E-waste Statistics Partnership (GESP), founded in 2017 by ITU, the United Nations University (UNU), and the International Solid Waste Association (ISWA), launched an open source online portal at [globalewaste.org](https://globalewaste.org/publications/) where e-waste data and statistics are made publicly available. This website also lists over 150 publications on e-waste from across the agencies of the United Nations. ITU and partners of the GESP developed the Global E-waste Monitor 2020 (to be launched in 2020) to further increase awareness of the growing issue of e-waste by providing a comprehensive overview of global e-waste statistics, enhancing understanding and the interpretation of the data. Regional e-waste monitors are currently under development in Latin America, Arab States and the Commonwealth of Independent States.

7.2 **National e-waste management policies**

Support for the development of national e-waste management policies grew in importance in 2019 within the ITU e-waste programme after requests from Member States. A rapid e-waste assessment and national stakeholder consultation workshop took place in Namibia in 2019, with the preliminary drafting of a policy document for consultation.

7.3 **E-waste statistics workshop**

ITU collaborated with the East Africa Communications Organisation (EACO) to organize training on e-waste statistics in Kampala, Uganda. The workshop, delivered as part of the ongoing GESP capacity building activities, provided training on the key components of e-waste policy and legislation and of measuring e-waste by collecting and improving e-waste data and estimations.

7.4 **Blueprint for circular electronics**

ITU joined a new collaboration, which started in December 2019, with the World Economic Forum (WEF), the World Business Council for Sustainable Development, the Responsible Business Alliance, the Partnership for Accelerating the Circular Economy and the Green Electronics Council in the creation of a circular economy industry alliance for electronics. The collaboration aims to shift the playing field of the electronics industry towards contributing to the SDGs through circular economy principles; to establish consistency across how collaborative solutions are deployed, identified, evaluated and communicated; to create a platform through which lessons learned, best practices, examples and regional perspectives can be shared; to stimulate action in priority intervention points to bring the right parties together in the right venues and on the right topics to resolve common barriers; to link the discussions between strategic-technical, global-local and private-public-civil society.

7.5 **United Nations E-waste Coalition**

The [UN E-waste Coalition](https://www.itu.int/en/ITU-D/Climate-Change/Pages/ewaste/E-waste-Coalition.aspx) is a UN system-wide group of agencies, programmes and organs with a common vision to tackle the global e-waste challenge. ITU was fundamental in the bringing together of these entities, eventually to form the Coalition. In 2019, the Coalition hosted a meeting in Bonn, Germany, with representatives from several countries, international partners and private sector entities, to present and gather feedback on the mission, vision, and governance structure of this emerging collaboration of UN agencies around the e-waste topic.

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| **REGIONAL INITIATIVES**Americas: Disaster risk reduction and management communications* As part of the Girls in ICT Day 2019 celebrations in the Caribbean, awareness on the negative impact of climate change was enhanced by the planting of trees in many schools, in collaboration with local regulators, ministries of education, and NGOs.

Arab States: Environment, climate change, and emergency telecommunications* The E-waste Monitor project in the Arab States region was launched in 2019 to collect and improve e-waste statistics in the region. The project will improve data availability and quality, availability of policies and regulations and awareness through capacity building workshops. It will also communicate the data on e-waste to policy-makers, the media, and other relevant stakeholders.

Asia-Pacific: Contributing to a secure and resilient environment* The policy awareness workshop on e-waste, which took place in Hyderabad, India, was co-organized with key agencies of the India Government and the UNU, ILO, WHO and UNEP. The workshop raised awareness, built capacity, and provided recommendations for future work on e-waste in India.
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| **STUDY GROUPS**A workshop on frontier ICTs for climate action took place on 15 October as part of the ITU-D Study Group 2 (Question 6/2 *ICTs and the environment*). This workshop brought together actors from the sectors involved in the development of frontier ICTs such as big data and earth observation in the context of climate action. Participants discussed the role of these new ICTs and how they can be applied to climate change adaptation, mitigation, and monitoring. The content exchanged and lessons learned during the workshop will be used as input to the final report of Question 6/2. The workshop programme and presentations can be accessed at the following [link](https://www.itu.int/en/ITU-D/Study-Groups/2018-2021/Pages/meetings/session-Q6-2-oct19.aspx). |

**8. Networks and digital infrastructure: Making reliable connectivity available to everyone**

8.1 **ITU broadband maps**

The ITU [broadband maps](https://itu.int/map-public) were enhanced to promote understanding and investment opportunities of network infrastructure to take stock of worldwide connectivity. The maps provide information from more than 440 operators and 24 000 access points worldwide.

8.2 **Business planning for infrastructure deployment toolkit**

The ITU [ICT infrastructure business planning toolkit](https://itu.int/go/businessplan_toolkit) offers regulators and policy-makers a clear and practical methodology to deliver accurate economic evaluation of proposed broadband infrastructure installation and deployment plans.

The toolkit serves as a practical manual for regulators and policy-makers working towards extending broadband network deployment and access; addresses key elements for a successful business planning implementation for ICT infrastructure development; presents and explains best practices on infrastructure installation and deployment plans as well as its economic feasibility assessment to support decision making; provides quantitative examples of most searched projects, such as the construction of optical fibre backbones, wireless broadband networks (including 4G), and fibre-to-the-home (FTTH) access network projects.

8.3 **Last mile connectivity project**

The last mile connectivity [project](https://www.itu.int/en/ITU-D/Regional-Presence/Europe/Documents/Events/2019/Workshop%20Kyiv/Aminata%20Garba%203%20Last%20Mile%20Connectivity%20Kiev.pdf) was launched to drive new collaborative strategies to ensure that all people achieve meaningful universal connectivity. This project will enable partners to share resources and take a more holistic approach that treats broadband as a basic public utility and tool for socio-economic development.

8.4 **GIGA**

The ITU-UNICEF school connectivity project, launched at the UN General Assembly, has set the goal of providing connectivity to every school in the world. Some 3.7 billion people in the world do not have access to the Internet, of whom 360 million are young people. A lack of access to the Internet means children and young people are excluded from the wealth of information available online, limiting their resources to learn and to grow, and to fulfil their potential. Closing the digital divide requires global cooperation, leadership, and innovation in finance and technology.

The [GIGA initiative](https://www.itu.int/en/ITU-D/Initiatives/GIGA/Pages/default.aspx) has four pillars: map connectivity of every school and use it to show where connectivity demand is and use new technologies to create a real-time map of school locations and their connectivity level; finance a common bid that aggregates connectivity demand in schools (pooled across multiple countries) and creates a cost-forecasting model to make connectivity more affordable; connect every school to the Internet and create a monitoring system to oversee the level and quality of connectivity delivered by Internet service providers; empower young people with skills by investing in, and scaling up, open source solutions that – with connectivity – will be available to children, teachers, and administrators.

8.5 **ITU-MUST project on IPv6 and IoT Expertise Centre**

The main goal of the project ITU-MUST (Malaysia University of Science and Technology) is to assist Member States for a smooth transition from IPv4 (Internet Protocol version 4) to IPv6 (Internet Protocol version 6) for Internet of Things (IoT) infrastructure, IPv6 over 5G Networks, IPv6 for Industry 4.0, services and applications deployments, raising awareness through conducting technical assistance, trainings and/or workshops. Several trainings and workshops were organized in 2019 to this effect.

8.6 **Broadband for rural connectivity**

In the framework of the ITU/McCaw Foundation project for Africa region countries, ITU continued to implement Internet broadband wireless connectivity and develop ICT applications to provide free or low cost digital access for schools and hospitals, and for underserved populations in rural and remote areas in selected countries. In Djibouti, for example, 18 sites were connected to broadband Internet; 62 primary and secondary schools, and 15 hospitals and clinics were also connected.

8.7 **Policy and Regulation Initiative for Digital Africa (PRIDA)**

This policy and regulation initiative for Africa was launched to foster universally accessible and affordable wireless broadband across the Africa region in order to unlock future benefits of Internet based services. This ambitious 3.5-year initiative is a [multi-partner project](https://www.youtube.com/watch?v=6NYLHZqeEvo) by the European Union, the African Union, and ITU.

8.8 **Conformity and interoperability of networks**

Skills in specific absorption rate, radio frequency, electromagnetic frequency, and digital terrestrial television were enhanced through conformity and interoperability trainings for English speaking and French speaking countries.

8.9 **WTDC Resolution 9 (Rev. Buenos Aires, 2017)**

A summary of the ITU activities for implementation of Resolution 9 can be seen in the table below. It gives a thematic overview of assistance provided and the number of activities carried out. Document [TDAG-20/INF/3](https://www.itu.int/md/D18-TDAG25-INF-0003/) contains a summary of assistance provided to Member States on spectrum management issues by region.

| **Topic** | **Number of activities** |
| --- | --- |
| 1. Assistance in raising the awareness of national policy-makers as to the importance of effective spectrum management for a country's economic and social development.
 | 19 |
| 1. Training and dissemination of available ITU documentation.
 | 22 |
| 1. Assistance in developing methodologies for establishing national tables of frequency allocations and spectrum redeployment.
 | 10 |
| 1. Assistance in setting up computerized frequency management and monitoring systems.
 | 8 |
| 1. Economic and financial aspects of spectrum management.
 | 12 |
| 1. Assistance with preparations for world radiocommunication conferences (WRC) and with follow-up and implementation of WRC decisions.
 | 18 |
| 1. Assistance with participation in the work of the relevant ITU-R study groups and their working parties.
 | 5 |
| 1. Transition to digital terrestrial television broadcasting.
 | 12 |
| 1. Assistance in identifying the most efficient ways to utilize the digital dividend.
 | 8 |
| 1. Emerging technologies and approaches in using spectrum.
 | 17 |
| 1. Innovative ways of spectrum licensing.
 | 7 |
| 1. Assistance with interference caused by devices in derogation of national spectrum allocations.
 | 2 |
| 1. Assistance in resolving seasonal interference caused by anomalous propagation of radio waves.
 | 0 |
| 1. SMS4DC development and training.
 | 7 |
|  Total | 147 |

8.10 **Broadband wireless networks**

In the framework of the ITU/McCaw Foundation project for Africa region countries, 14 schools in Burkina Faso were equipped with computer networks, equipment, and Internet connection to allow the introduction of e-education in the education system.

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| **REGIONAL INITIATIVES**Africa: Building digital economies and fostering innovation in Africa* The first ever [Global Refugee Forum](https://www.itu.int/en/ITU-D/bdt-director/Pages/News.aspx?ItemID=205) was held in Geneva in December. ITU, UNHCR and GSMA co-sponsored a session that explored the challenges of delivering connectivity for refugees, displaced persons, and the communities that host them. The event was the culmination of close collaboration for future programmes and national projects on meaningful connectivity for refugees and their host communities in Africa.

Asia-Pacific: Fostering development of infrastructure to enhance digital connectivity* As part of satellite connectivity project, ITU provided 35 Ku band satellite connectivity equipment to seven Pacific Islands countries (Fiji, Kiribati, Papua New Guinea, Samoa, Tonga, Tuvalu, and Vanuatu). The equipment was deployed to remote areas.
* Specialized assistance was provided to Mongolia to review the national radio frequency spectrum charging regime. A new fee charging formula was developed in order to compensate the effects of inflation and encourage innovative use of this resource.
* Assistance was provided to Solomon Islands and Vanuatu to develop a national type approval regime for short-range wireless devices
* More than 15 workshops and trainings were carried out to raise awareness and build skills on spectrum management, AI, DLTs, broadband, 5G, conformity and interoperability, NGN, mobile planning and security, IoT security, digital transformation, broadcasting amongst others.
* Technical training on Spectrum Management System for Developing Countries (SMS4DC) was conducted in Vientiane, Lao PDR.
* Viet Nam was assisted in amending its national laws on frequencies and with the associated amendments to the laws on telecommunication. The study also included a comprehensive IMT spectrum roadmap.

Americas: Spectrum management and transition to digital broadcasting * A regional spectrum management training seminar for the Caribbean was organized to improve the level and speed of ICT connectivity in countries within the region.
* Technical and special assistance was provided to the Ministry of Science, Energy and Technology and the Spectrum Management Authority of Jamaica for the development of a national spectrum licence framework for Jamaica to improve ICT connectivity in the country.

Europe: Broadband infrastructure, broadcasting, and spectrum management* The third annual CIS region and CEE spectrum management conference and ITU workshop on how to achieve interference-free communication at the current technological stage was held in Minsk, Belarus.
* A series of workshops and seminars were organized to discuss the future of television, the mapping of terrestrial broadband infrastructure and services, digital economy, and radiocommunication matters.
* A 5G Techritory meeting for Baltic States was held in Riga, Estonia, and supported by ITU as the sub-regional platform for cooperation.
* A special regional engagement initiative was launched to enhance the dataset of the ITU interactive transmission maps.
* A regional initiative project on *supporting of investment opportunity mapping systems in broadband infrastructure for south Eastern Europe* was developed.
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| **STUDY GROUPS**The **first annual deliverable from the ITU-D study groups** entitled [Trends in new broadcasting technologies, services and applications](https://www.itu.int/oth/D0717000001/) (Question 2/1) was released during the ITU-D Study Group 1 meeting. The deliverable provides the latest trends in broadcasting including new service scenarios based on latest technologies, highlights of the work being carried out in ITU-T and through recent events, as well as economic and regulatory impacts for end-users, stakeholders and regulatory bodies.Two workshops that were held in conjunction with the ITU-D Study Group 1 Rapporteur Group meetings in September 2019 shared some interesting findings. The [workshop on rural connectivity](https://www.itu.int/en/ITU-D/Study-Groups/2018-2021/Pages/meetings/session-Q5-1-sept19.aspx) brought forth key challenges, such as costs, to connecting people in rural areas, noting further that the barrier to connecting the unconnected is not, as one may think, spectrum or coverage. The [workshop on the implementation of broadband projects](https://www.itu.int/en/ITU-D/Study-Groups/2018-2021/Pages/meetings/session-Q1-1-sept19.aspx) shared evidence, success stories and challenges encountered from such projects in all geographical regions. The presentations are shared on the respective workshop websites.A workshop on *ICT conformance and interoperability: challenges for developing countries* was organized in conjunction with ITU-D Study Group (2 Question 4/2 *Assistance to developing countries for implementing conformance and interoperability (C&I) programmes and combating counterfeit ICT equipment and theft of mobile devices*). This event explored and proposed solutions for: ICT products as SDGs enablers, innovative collaboration, and new technologies (especially IoT). The content exchanged and lessons learned during the workshop will be used as input to the final report of Question 4/2. The workshop programme and presentations can be accessed at the following [link](https://www.itu.int/en/ITU-D/Study-Groups/2018-2021/Pages/meetings/session-Q4-2-oct19.aspx).A tutorial on AI and emerging technologies (<https://www.itu.int/en/ITU-D/Study-Groups/2018-2021/Pages/meetings/tutorial_AI_oct19.aspx>), held at ITU in conjunction with ITU-D study group rapporteur group meetings, enabled ITU Member States, Sector Members, and ITU staff to learn more about what AI is and what it is not, as well as the opportunities and challenges. Trainers and speakers from academia, the private sector and government agencies shared their insights, while the discussions highlighted some of the questions regarding intellectual property rights, ethics and accountability that remain to be addressed. The presentations are shared on the [website](https://www.itu.int/en/ITU-D/Study-Groups/2018-2021/Pages/meetings/tutorial_AI_oct19.aspx).  |

**9. Policy and regulation: Supporting collaborative policy and regulatory frameworks for digital market development and user well-being**

9.1 **GSR-19**

The 19th edition of the [Global Symposium for Regulators (GSR-19)](http://www.itu.int/gsr19), held in Port Vila, Vanuatu, from 9 to 12 July, attracted over 325 participants including government ministers, heads of regulatory authorities, and industry executives from 64 countries. Chaired by Mr Brian Winji, Chairman of the Telecommunications, Radiocommunications and Broadcasting Regulator of the Republic of Vanuatu, the theme of GSR-19 was *Inclusive connectivity: The future of regulation*. GSR-19 adopted the best practice guidelines on fast-forwarding digital connectivity for all. The guidelines support spreading last mile networks to allow everyone to participate in the digital economy and benefit from digital transformation.

9.2 **The positive impact of broadband**

A series of reports quantified the positive economic impact of broadband, digital transformation and the interplay of ICT regulation both at [regional and global levels](https://www.itu.int/pub/D-PREF-EF.BDR-2018). The main outcomes from the econometric modelling by region suggest that, an increase of 10 per cent in mobile broadband penetration would yield an increase in 2.5 per cent in GDP per capita in the [Africa region](https://www.itu.int/pub/D-PREF-EF.BDT_AFR-2019), while the increase in GDP per capita would be of 1.9 per cent in the [Americas region](https://www.itu.int/pub/D-PREF-EF.BDT_AM), 1.81 per cent in the Arab States region, 0.51 per cent in the [Asia-Pacific region](https://www.itu.int/pub/D-PREF-EF.BDT_AP-2019), 1.25 per cent in CIS region, and 2.1 per cent in the Europe region. In addition, the findings of the regional studies suggest that pricing remains a key enabler for adoption of broadband. A 10 per cent drop in prices will boost adoption by more than three per cent in Africa and the Americas regions.

The ITU report from the Working Group of the Broadband Commission on the Digital Infrastructure Moonshot for Africa entitled [*Connecting Africa Through Broadband A strategy for doubling connectivity by 2021 and reaching universal access by 2030*](https://broadbandcommission.org/Documents/working-groups/DigitalMoonshotforAfrica_Report.pdf) benefitted from substantive contributions from ITU. The report attempts to quantify the cost of bridging the broadband gap in Africa, providing a roadmap and action plan for reaching universal broadband connectivity in the region by 2030.

9.3 **ITU** **ICT Regulatory Tracker and global ICT regulatory outlook report**

The ITU [ICT Regulatory Tracker](https://www.itu.int/net4/itu-d/irt/#/tracker-by-country/regulatory-tracker/2018) was published to help inform key policy decisions. It is composed of 50 indicators grouped into four pillars: regulatory authority, regulatory mandate, regulatory regime, and competition frameworks, and data is available for the period from 2007 through 2018.

9.4 **Collaborative regulation benchmark and tools**

The [G5 Benchmark](https://www.itu.int/en/ITU-D/Conferences/GSR/2019/Documents/G5Benchmark_one-pager.pdf) was launched at GSR-19 as a new tool that models regulatory set-up and tools, and proposes collaborative, cross-sector solutions to fast-track effective regulation for digital transformation. Based on a sound methodology and robust data, it highlights shortcomings in existing policy frameworks for the digital transformation and provides a roadmap for further regulatory reform. The G5 Benchmark covers 80 countries in all regions, with 2018-2019 data. According to the analysis based on the Benchmark and the ICT Regulatory Tracker, nine out of ten countries are still regulating ICTs as a separate economic sector. A vanguard of 16countries have achieved the fifth generation, collaborative regulation and now have holistic, forward-looking regulatory frameworks in placeset to enable digital transformation across their economies. Europe ranks first of the regions, boasting ten of 16 global G5 champions. The six countries outside Europe now joining the G5 cadre are Brazil, Canada, Kenya, Morocco, Japan, and Singapore.

9.5 **Regulatory training**

A series of training sessions were held for regulators to address digital policy and regulation and market developments and collaborative regulatory approaches for digital transformation.

Within the framework of the ITU Academy, GSMA offered a ‘taster’ training session for policy-makers and regulators on competition policy in the ICT/ mobile sector at GSR-19. The session provided a half-day introduction to the topic, based on content from the United Kingdom Telecoms Academy-accredited two-day course, *Competition Policy in the Digital Age*, which was offered as an online course to policy-makers and regulators through the ITU Academy in 2019.

ITU, USTTI, and World Bank Group (WBG) collaborated to conduct a regulatory best practice training in Nairobi, Kenya, for officials from Eswatini, Ethiopia, Kenya, Somalia, South Sudan, and Sierra Leone. With important support from the Communications Authority of Kenya and the African Telecommunications Union (ATU), the three-day programme addressed the role of an independent communications regulator, licensing frameworks and regulatory best practices that spur investment.

9.6 **Consumer protection**

The Digital Consumer Forum for Africa 2019 focusing on data protection, consumer privacy, trust, and security was held in Eswatini and adopted a set of recommendations and best practice guidelines for policy and regulators in the Africa region. The forum preceded a workshop on collaborative approaches for consumer protection for digital financial inclusion with participation from a range of stakeholders representing the finance, insurance, local government and academia, among others.

9.7 **Financial Inclusion Global Initiative (FIGI)**

Assistance was provided on how to leverage ICTs for digital financial inclusion in China, Egypt, and Mexico, under the Financial Inclusion Global Initiative, a 3-year initiative led by the ITU, the World Bank Group, the Committee on Payments and Market Infrastructures (CPMI), and supported by the Bill and Melinda Gates Foundation. Activities have focused on providing a gap analysis for Egypt on needs to foster a secure resilient infrastructure for ICTs, mapping of infrastructure in Mexico, defining pilot projects to leverage ICTs to foster digital financial services to eradicate poverty in China, and defining and putting into place collaborative regulatory mechanisms to underpin a whole-of-government approach in Mexico.

9.8 **European Union/African Union Digital Economy Task Force Recommendations**

As an active member of the [EU-AU Digital Economy Task Force (DETF) Task Force](https://ec.europa.eu/digital-single-market/en/news/new-africa-europe-digital-economy-partnership-report-eu-au-digital-economy-task-force), ITU participated in developing a shared vision, a set of common agreed principles and a list of policy recommendations and actions in a report aimed at addressing the principal barriers faced by the Africa region as it seeks to develop the digital economy and society. The main areas addressed include: Accelerating universal access to affordable broadband; Guaranteeing essential skills for all to enable citizens to thrive in the digital age; Improving the business environment and facilitating access to finance and business support services to boost digitally enabled entrepreneurship; and, Accelerating the adoption of E-services and the further development of the digital economy for achieving the Sustainable Development Goals. These recommendations and inputs were also shared with the African Union Commission for the development of the African Union Digital Transformation Strategy.

9.9 **Direct assistance**

Concentrated assistance for Portuguese speaking countries was provided in Sao Tome and Principe on quality of service of networks and numbering. Direct assistance for Sao Tome and Principe on a tariffs study was also provided, and training was organized.

Direct assistance to the Democratic Republic of the Congo for the national universal service obligation (USO) and numbering workshop was delivered in Kinshasa.

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| **REGIONAL INITIATIVES**Asia-Pacific: Enabling policy and regulatory environmentsASEAN Ministers adopted frameworks on USO 2.0 and child online protection, with the support of ITU.Country specific assistance was provided to the Solomon Islands to review the telecommunication legislation. Europe: Broadband infrastructure, broadcasting and spectrum managementTwo countries were provided with technical assistance: a national plan for broadband development 2020-2025 was developed for Albania and a special policy paper on the ICT infrastructure development and investment was developed for North Macedonia. |

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| **STUDY GROUPS**ITU Member States, Sector Members and experts shared their perspectives on *OTT regulation and economic impact*during the October ITU-D Study Group 1 rapporteur group meetings. With the rich content and insights put forward, [Question 3/1](https://www.itu.int/net4/ITU-D/CDS/sg/rgqlist.asp?lg=1&sp=2018&rgq=D18-SG01-RGQ03.1&stg=1) (*Emerging technologies, including cloud computing: m-services, and OTTs: Challenges and opportunities, economic and policy impact for developing countries*) and [Question 4/1](https://www.itu.int/net4/ITU-D/CDS/sg/rgqlist.asp?lg=1&sp=2018&rgq=D18-SG01-RGQ04.1&stg=1) (*Economic policies and methods of determining the costs of services related to national telecommunication/ICT networks*) Rapporteur Groups are well-equipped to work towards a joint annual deliverable for the February 2020 ITU-D Study Group 1 meetings. The presentations and discussion papers can be found on the workshop [website](https://www.itu.int/en/ITU-D/Study-Groups/2018-2021/Pages/meetings/joint-session-Q3-1-Q4-1_oct19.aspx). |

**10. Statistics: Helping countries with evidence-based ICT policy adoption for digitally inclusive societies**

10.1 **Measuring Digital Development series**

The Measuring Digital Development series of statistical and analytical publications was launched in 2019. The first publication – [Facts and Figures](https://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx) 2019 – provides a snapshot of key ICT indicators and ITU estimates for 2019. The results show, among others, that over half the total global female population (52 per cent) is still not using the Internet, compared to 42 per cent of all men.

10.2. **Capacity development in statistics**

An ICT statistics workshop held in Tashkent, Uzbekistan, targeted officials from national statistics offices and focal points for ICT statistics in ministries of communications and regulators in countries across the Arab States and CIS regions. A similar workshop was delivered for the Africa region. The objective of the workshop was to strengthen the capacity of countries in the regions to produce national statistics and indicators on telecommunications and ICTs according to international standards, with a focus on the key statistics included in the ITU World Telecommunication/ICT Indicators (WTI) database.

**10.3 Meetings of statistical expert groups**

The [10th meeting of the ITU Expert Group on Telecommunication / ICT Indicators (EGTI)](https://www.itu.int/en/ITU-D/Statistics/Pages/events/egti2019/default.aspx) took place in Geneva, Switzerland, on 17-18 September 2019, back-to-back with the [7th Meeting of the Expert Group on ICT Household Indicators (EGH)](https://www.itu.int/en/ITU-D/Statistics/Pages/events/egh2019/default.aspx), which was held on 19-20 September 2019. Around 130 participants attended the meetings, including experts from regulators, telecommunication operators, ministries and national statistical offices from 64 countries, as well as ITU-D Sector Members, other UN agencies and regional organizations.

The agenda of the EGTI meeting covered the following topics: quality of service (QoS) indicators; fixed-broadband Internet traffic measurement methodology; indicators on international roaming; price indicators; indicators on spectrum allocation/assignment; and the revision of the ITU Handbook on Telecommunication Indicators. The EGH meeting included discussions on improving the measurement of ICT skills and of Internet users; the revision of the ITU Manual for Measuring ICT Access and Use by Households and Individuals; and a model household ICT questionnaire and topical modules. The meetings agreed on steps to advance the work on these topics.

**10.4. Partnership on Measuring ICT for Development**

ITU continues to be an active member of the Partnership on Measuring ICT for Development and together with UNCTAD and UIS is one of the three members of its Steering Committee. In 2019, the Partnership continued to actively engage in monitoring the Sustainable Development Goals (SDGs) through its Task Group on ICT for the SDGs, co-led by ITU and UNDESA. During the 2019 WSIS Forum, the Partnership organized a session on *Measurement of Progress towards the SDGs through ICT Indicators*, which discussed progress made by the Task Group and presenting a draft of a thematic list of ICT indicators, which can be used by countries to measure ICT availability and use in sectors relevant to the SDGs that are not covered in the global SDG indicators framework. The list includes 26 ICT indicators, related to 27 SDG Targets belonging to 11 Goals, which were discussed and agreed upon through a consultation process involving governments and international organizations. The final list has been submitted to the 51st session of the United Nations Statistical Commission (UNSC), which will take place in March 2020, for endorsement.

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| **STUDY GROUPS**Guided by the ITU Member States and Sector Members, concrete steps were taken in the coordination of statistics-related activities between ITU-D study groups and the Expert Group on Telecommunication/ICT Indicators (EGTI) and the Expert Group on ICT Household Indicators (EGH). Experts and management team members are participating in meetings of the other groups and reporting on areas of common interest. Liaison statements have also, for the first time, been exchanged between the groups. This collaboration aims to contribute towards implementing ITU Plenipotentiary Conference Resolution 131 (Rev. Dubai, 2018) and WTDC Resolution 8 (Rev. Buenos Aires, 2017) and to share information. |

**11. Study group work**

11.1 **ITU-D Study Groups 1 and 2: Annual deliverables**

Two annual deliverables where released during the annual meetings of ITU-D study groups:

• [**Trends in new broadcasting technologies, services and applications**](https://www.itu.int/en/ITU-D/Study-Groups/2018-2021/Pages/OngoingWork.aspx) (Question 2/1): Provides the latest trends in broadcasting including new service scenarios based on latest technologies; highlights of the work being carried out in ITU-T and through recent events; as well as economic and regulatory impacts for end-users, stakeholders and regulatory bodies.

• [**A holistic approach to creating smart societies**](https://www.itu.int/en/ITU-D/Study-Groups/2018-2021/Pages/OngoingWork.aspx) (Question 1/2): Describes key principles that contribute to the establishment of a holistic approach to create smart societies. An example of architecture of a smart city is also proposed based on these core design concepts, and a summary of selected country case studies on smart cities is presented.

11.2 **Workshops/tutorials associated with ITU-D study groups**

Several workshops/tutorials were organized in conjunction with the Rapporteur Group meetings in 2019, which raised awareness and enlarged the field of knowledge on several Question items under study. Outputs of these workshops served as a basis for the development of new annual deliverables and draft guidelines in 2020 and will contribute to the development of the output reports for the study group Questions.

For more information on the work of the ITU-D Study Groups 1 and 2, please refer to documents [TDAG-20/12](https://www.itu.int/md/D18-TDAG25-C-0012/) and [TDAG-20/13](https://www.itu.int/md/D18-TDAG25-C-0013/).

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| **Assistance to LDCs, SIDS and LLDCs**The work of BDT, centred around coherent and focused workstreams, cuts across least developed countries (LDCs), small island developing states (SIDS) and landlocked developed countries (LLDCs). As described in this document, in 2019 assistance was provided to Eswatini, Malawi, Liberia, South Sudan, Uganda, Gambia, Burundi, Sao Tome and Principe, Eritrea, Saint Kitts and Nevis, Mauritania, Comoros, Somalia, Yemen, Fiji, Kyrgyzstan, Mongolia, Papua New Guinea, Vanuatu, Kiribati, Samoa, Tonga, Tuvalu, Solomon Islands, LAO PDR, Myanmar, Cambodia and North Macedonia.Furthermore, specific reports were produced to address the challenges of these countries. For example, the ITU-D study on the Economic Impact of Broadband in LDCs, LLDCs and SIDS, produced in cooperation with the UN Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS), confirms that both fixed and mobile broadband have a positive impact in the most vulnerable countries. A second report, titled Small Island Developing States and ICTs - a midterm review of the Samoa pathway - shows that SIDS have made progress in terms of the universality and affordability of their ICT networks since the Samoa conference. However, progress has been uneven and there is a major gap between best performing SIDS and the others. |

**12. Regional Development Forums**

A series of Regional Development Forums were organized across the globe. The forums are a great opportunity to discuss development issues with a wide range of stakeholders on the ground.

**Beirut, Lebanon**

The Arab States Regional Development Forum was held in Beirut, Lebanon and was organized as part of the activities of the Arab High-Level Forum (AHLF) on the World Summit on the Information Society (WSIS) and 2030 Agenda for Sustainable Development.  AHLF is organized and hosted by the United Nations Economic and Social Commission for Western Asia (ESCWA) in collaboration with the ITU Arab States Regional Office. The Forum served as a regional coordination meeting for ITU Member States and Sector Members to review the implementation of the 2018 operational plan of WTDC-17 as well as the 2019 operational plan. It also provided an opportunity for a high-level dialogue between the ITU Member States and Sector Members and other stakeholders from the Arab States region to synergize efforts, seek new partnerships, and agree on priority areas for the coming period.

**Asunción, Paraguay**

The Forum was organized on 30 September, in Asuncion, Paraguay, back-to-back with the 35th meeting of the Inter-American Telecommunication Commission (CITEL) Permanent Consultative Committee I (PCC I), at the kind invitation of CONATEL Paraguay.

The main strategic orientations identified in the region were broadening connectivity, improving affordability of services, and reducing the digital divide through digital skills, people centric policy and regulatory strategic alliances. During the RDF-AMS the need for the region to move faster with concrete actions towards the fourth industrial revolution, and the need of agile and adaptable regulatory frameworks and policies related to the convergence of services were highlighted. In addition, the RDF-AMS underlined the need for the development of basic digital skills to empower people at the bottom of the pyramid; the need for investments in innovation, infrastructure, and digital transformation; and the need to enhance the cooperation between the public and private sectors.

**Rome, Italy**

ITU Regional Development Forum for Europe was hosted by the Ministry of Economic Development of Italy. The Forum was held back-to-back with the meeting of the Com ITU of CEPT (7-9 May 2019). The Forum provided an opportunity for a high-level dialogue between ITU and Member States and Sector Members in the Europe region as well as other stakeholders. The meeting resulted in a plan of action for the region addressing the expected results of the ITU regional initiatives.

**13. 2020: Partnering for digital transformation**

This report shows that today's digital era needs strong collaboration based around cooperation, resource-sharing and win-win-win arrangements that benefit governments, industry and users. A more holistic ‘whole-of-government’ approach, in which technology is viewed as a basic enabling service that benefits all, is fundamental.

BDT is putting a lot of emphasis on forging win-win strategic partnerships that open doors for collaboration essential to improved outcomes, tangible results and impact. With this in mind, BDT continues to cultivate relationships with existing partners, identify and engage new partners, retain exiting and attract new ITU-D Sector Members with the aim of attracting resources to finance large scale projects to support an impactful implementation of Buenos Aires Action Plan at global, regional, and national levels.

In 2020, BDT will continue to deliver on the Buenos Aires Action Plan through its thematic priorities to make a sustainable impact and advance digital transformation for all in 2020 and beyond. Furthermore, 2020 will offer an opportunity to build on the adoption of new technologies and develop and expand existing methodologies and inspire others through best practice. Together BDT can continue to transform the digital era and drive the conversation towards inclusive digital transformation.

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1. The [EQUALS](http://www.equals.org) Global Partnership for Gender Equality in the Digital Age ensures that women and girls are given access, equipped with skills, and develop the leadership potential to work and succeed in the ICT sector. The partnership was founded by ITU, UN Women, GSMA, ITC, and UNU and it is governed by a Steering Committee (where ITU is a member) that provides strategic guidance on the development of the partnership. Today, more than 90 partners from every region of the world have responded to this call to action that sets out a collaborative and coordinated framework for stakeholders to make specific, measurable pledges across four focus area coalitions (Access, Skills, Leadership and Research) that contribute to address the multiple facets of the gender divide in technology. [↑](#footnote-ref-1)