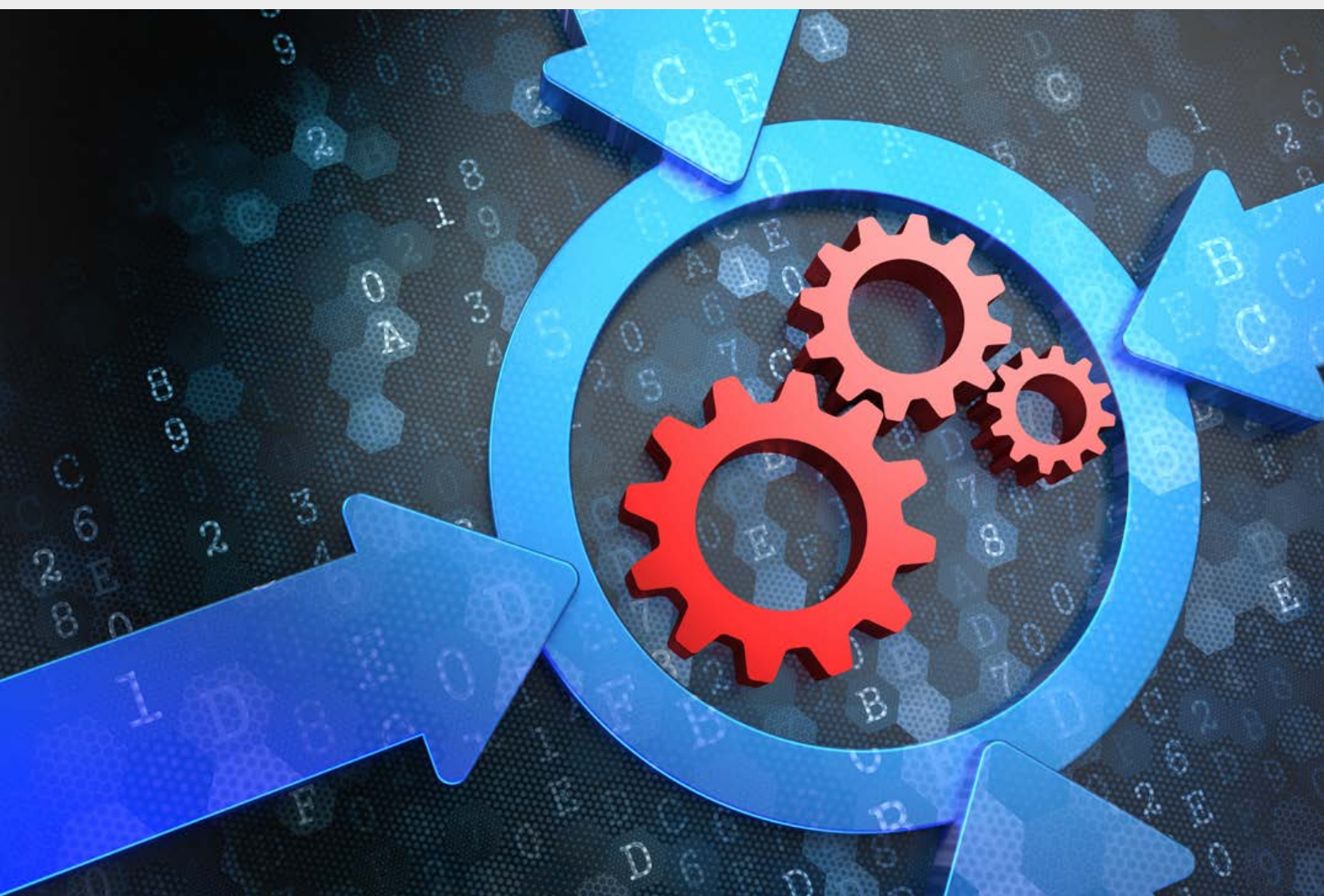# ITU-D Four-Year Rolling Operational Plan

2020-2023

ITU-D
FOUR-YEAR ROLLING OPERATIONAL PLAN 2020-2023

INTRODUCTION

Foreword by the Director of the Telecommunication Development Bureau (BDT)

The purpose of this document is to present for TDAG's consideration the highlights and key elements of the revised draft four-year rolling operational plan for the Telecommunication Development Sector for the 2020-2023 timeframe. The details relating to the implementation of the Operational Plan for the year 2018 are presented in the 2018 Performance Report.

The Operational Plan reflects the following parts adopted by WTDC-17, which are included in the ITU-D component of the Strategic Plan for 2020-2023 (Resolution 71 (Rev. Dubai, 2018)):

- Five Strategic Goals and Four ITU-D objectives;

- Specific outcomes for each of the four ITU-D objectives;

- 17 related outputs based on the four ITU-D objectives.

The Operational Plan provides the framework within which the objectives of the ITU-D will be implemented during 2020-2023. It encompasses all relevant information regarding outcomes, outcome indicators, outputs and related key performance indicators as well as human resource requirements.

In preparing the draft operational plan, the Bureau has sought to respond to the expectations and priorities expressed by our membership.

The key elements of the draft four-year rolling operational plan are as follows:

- ITU-D objectives and related outputs are derived from the draft Strategic Plan of the Union thus ensuring a consistent planning hierarchy and the necessary linkage across the different planning tools and instruments (ITU Strategic, Financial and Operational plans);

- Description of the outcomes and outcomes indicators;

- Enhancement of the annual expected results and related performance indicator definitions at output level;

- Regional initiatives

- Identification of the key risk factors as well as preventive measures.

The revised draft operational plan as outlined below is presented to the 2019 meeting of the Telecommunication Development Advisory Group for its advice and comments.

D. Bogdan-Martin

Director, Telecommunication Development Bureau

PART 1

EXECUTIVE SUMMARY

Outline and key actions of the 2020-2023 Operational Plan

The 2020-2023 timeframe will be an important and challenging period for the ITU-D Sector. This will be the period for the continued implementation of the Buenos Aires Action Plan (BaAP), and the Regional Initiatives and other outcomes of the World Telecommunication Development Conference 2017 (WTDC-17). This will also be the period for the implementation of the new 2020-2023 Strategic Plan. This new Strategic Plan sets inter alia the strategic and financial frameworks within which ITU-D will organize its work and implement its work programme for that period. The next World Telecommunication Development Conference will convene in 2021 setting out objectives, action plans, programmes and regional initiatives for the following four-year period. The preparation of WTDC-21 will start in 2020.

It is recalled that WTDC-17 was convened under the theme of "ICT for Sustainable Development Goals" (ICT④SDGs). Telecommunications/ICTs are recognized as a key tool for implementing the WSIS Vision beyond 2015 and a key enabler for social, environmental, cultural and economic development; and consequently for accelerating the timely attainment of the Sustainable Development Goals (SDGs).

The high-priority areas for ITU-D have been identified as the following (without associating any order of priority):

2.1   International cooperation and agreement

- Ensuring the successful organization and completion of the major ITU-D Conference and meetings planned for 2020-2023 (TDAG, Study Group meetings, RPMs, WTDC-21) on the basis of timely preparatory and organizational work.

- Implementing the ITU-D Action Plan and the resolutions and recommendations adopted by the 2017 World Telecommunication Development Conference (WTDC-17).

- Ensuring enhanced knowledge-sharing, dialogue and partnership among the ITU membership on telecommunication/ICT issues.

- Ensuring timely and effective implementation of telecommunication/ICT development projects and regional initiatives.

- Developing and strengthening partnerships to mobilize resources to promote sustainable telecommunication/ICT development.

2.2   Development of infrastructure and services, including building confidence and security in the use of telecommunications/ICTs

- Assisting ITU membership in maximizing the use of new technologies for the development of their information and communication infrastructures and services and building global telecommunication/ICT infrastructure.

- Supporting the ITU membership, in particular developing countries, in building trust and confidence in the use of ICTs.

- Assisting Member States to strengthen their capacities on disaster risk reduction, management, and emergency telecommunications, including assistance to enable Member States to address all phases of disaster management, such as early warning, response, relief, and restoration of telecommunication networks.

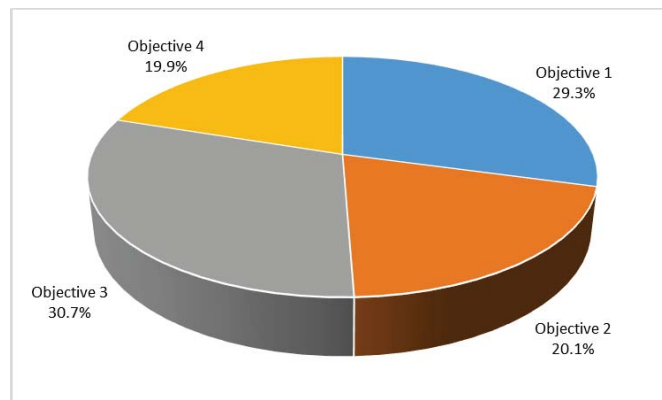## 2.3 Enabling policy and regulatory environment conducive to sustainable telecommunication/ICT development

- Strengthening the capacity of ITU membership in enhancing the enabling legal, policy and regulatory environments, as well as communication and collaboration mechanisms with other sectors conducive to the development of telecommunications /ICTs in a digital economy and to ensure that all can benefit from the full potential of telecommunications/ICTs.

- Supporting ITU membership in taking informed policy and strategic decisions based on high-quality, internationally comparable ICT statistics and data analysis.

- Strengthening humans' skills and institutional capacity of the ITU membership to tap into the full potential of telecommunications/ICTs.

- Supporting ITU-D memberships to foster digital transformation through ICT entrepreneurship and increased ICT innovation in the ICT ecosystem, while encouraging empowerment of grassroots key stakeholders and creating new opportunities for them in the telecommunication/ICT sector.

2.4 The development and use of telecommunications/ICTs and applications to empower people and societies for sustainable development (inclusive digital society)

- Providing concentrated assistance to Least Developed Countries (LDCs), Small Island Developing States (SIDS), Landlocked Developing Countries (LDCs) and countries with economies in transition.

- Supporting ITU membership, in collaboration and partnership with other United Nations organizations and the private sector, in fostering the use of telecommunications/ICTs in the various facets of information-society development, in particular in underserved and rural areas, and for sustainable development and attaining the UN Sustainable Development Goals (SDGs) and implementing the World Summit on the Information Society (WSIS) Action Lines.

- Promoting digital inclusion for empowering women and girls, persons with disabilities and other people with specific needs.

- Assisting Member States to enhance their capacities on and improve the use of telecommunication/ICTs in mitigating and responding to the devastating effects of climate change.

Planned human resources by objectives and outputs

Chart A below presents the breakdown of planned human resources by objectives among the proposed four ITU-D objectives for the 2020-2023 timeframe.
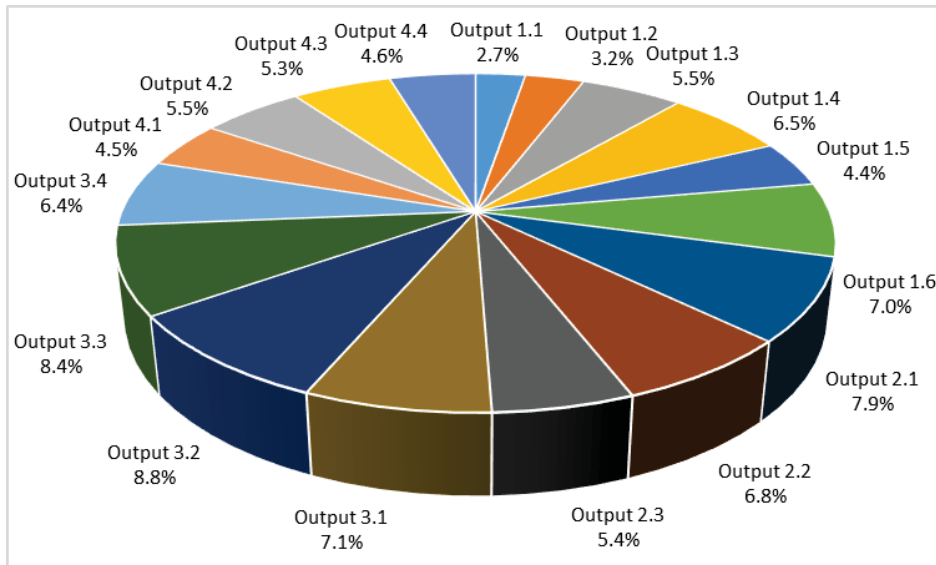

Objective 1: Coordination: Foster international cooperation and agreement on telecommunication/ICT development issues

Objective 2: Modern and secure telecommunication/ICT Infrastructure: Foster the development of infrastructure and services, including building confidence and security in the use of telecommunications/ICTs

Objective 3: Enabling environment: Foster an enabling policy, and regulatory environment conducive to sustainable telecommunication/ICT development

Objective 4: Inclusive information society: Foster the development and use of telecommunications/ICTs and applications to empower people and societies for sustainable development

Chart B below presents the breakdown of planned human resources by outputs among the 17 outputs of the Telecommunication Development Sector for the 2020-2023 timeframe.

Output 1.1: World telecommunication development conference (WTDC) and WTDC final report	**Output 3.1:** Products and services on telecommunication/ICT policy and regulation for better international coordination and coherence, such as assessment studies and other publications, and other platforms to exchange information
Output 1.2: Regional preparatory meetings (RPMS) and final report of the RPMS	**Output 3.2:** Products and services on telecommunication/ICT statistics and data analysis, such as research reports, collection, harmonization and dissemination of high-quality, internationally comparable statistical data, and forums of discussion
Output 1.3: Telecommunication Development Advisory Group (TDAG) and reports of the TDAG for the BDT Director and for WTDC	**Output 3.3:** Products and services on capacity building and human skills development, including those on international Internet governance, such as online platforms, distance and face-to-face training programmes to enhance practical skills and shared material, taking into account partnerships with telecommunication/ICT education stakeholders
Output 1.4: Study groups and guidelines, recommendations and reports of study groups	**Output 3.4:** Products and services on telecommunication/ICT innovation, such as knowledge-sharing and assistance, upon request, on developing a national innovation agenda; mechanisms for partnerships; development of projects, studies and telecommunication/ICT innovation policies
Output 1.5: Platforms for regional coordination, including regional development forums (RDFs)	**Output 4.1:** Products and services on concentrated assistance to LDCs, SIDS and LLDCs and countries with economies in transition, to foster availability and affordability of telecommunications/ICTs.
Output 1.6: Implemented telecommunication/ICT development projects and services related to regional initiatives	**Output 4.2:** Products and services on telecommunication/ICT policies supporting the development of the digital economy, ICT applications and new technologies, such as information sharing and support for their deployment, assessment studies, and toolkits
Output 2.1: Products and services on telecommunication/ICT infrastructure and services, wireless and fixed broadband, connecting rural and remote areas, improving international connectivity, bridging the digital standardization gap, conformance and interoperability, spectrum management and monitoring, the effective and efficient management and proper use of telecommunication resources within the mandate of ITU, and the transition to digital broadcasting, such as assessment studies, publications, workshops, guidelines, and best practices	**Output 4.3:** Products and services on digital inclusion for girls and women and people with specific needs (elderly, youth, children and indigenous people, among others), such as awareness-raising on digital inclusion strategies, policies and practices, development of digital skills, toolkits and guidelines and forums of discussion to share practices and strategies

Output 2.2: Products and services in building confidence and security in the use of telecommunications/ICTs, such as reports and publications, and to contribute to the implementation of national and global initiatives	**Output 4.4:** Products and services on ICT climate-change adaptation and mitigation, such as promotion of strategies and dissemination of best practices on mapping vulnerable areas and developing information systems, metrics, and e-waste management
Output 2.3: Products and services on disaster risk reduction and management, and emergency telecommunications, including assistance to enable Member States to address all phases of disaster management, such as early warning, response, relief, and restoration of telecommunication networks.	

Structure of the Operational Plan

The 2020-2023 Operational Plan sets out details on the objectives, their respective outputs, outcomes, as well as the outcome indicators, the annual expected results, performance indicators and risk analysis.

The Plan follows a results-based structure based on the objectives of the ITU-D contribution to the ITU strategic plan. It is organized as follows:

Part 1 presents the executive summary of the 2020-2023 Operational Plan.

Part 2 provides, for each of the objectives, the following information:

- Description of the objective
- Human resources allocation for the entire period (2020-2023)
- Description of the output and major trends/policy issues relating to the output

The result-based analysis consists of:

- Description of the outcomes and outcome indicators
- Statement of the annual expected results and performance indicators (PIs) for the four-year period
- Risk analysis

Part 3 provides for each Department of the Bureau:

- Description of the Department (including regional and area offices)
- Human resources allocation for the 2020-2023 period

Part 4 presents a set of tables and charts on resource allocations for the 2020-2023 timeframe.

Part 5 presents in detail the Regional Initiatives per region on a RBB basis.

	D.1 Coordination: Foster international cooperation and agreement on telecommunication/ICT development issues	D.2 Modern and secure telecommunication/ICT infrastructure: Foster the development of infrastructure and services, including building confidence and security in the use of telecommunications/ICTs	D.3 Enabling environment: Foster an enabling policy and regulatory environment conducive to sustainable telecommunication/ICT development	D.4 Inclusive information society: Foster the development and use of telecommunications/ICTs and applications to empower people and societies for sustainable development
Objectives				
Outcomes	**D.1-1:** Enhanced review and increased level of agreement on the draft ITU-D contribution to the draft ITU strategic plan, the World Telecommunication Development Conference (WTDC) Declaration, and the WTDC Action Plan. **D.1-2:** Assessment of the implementation of the Action Plan and of the WSIS Plan of Action. **D.1-3:** Enhanced knowledge-sharing, dialogue and partnership among the ITU membership on telecommunication/ICT issues. **D.1-4:** Enhanced process and implementation of telecommunication/ICT development projects and regional initiatives. **D.1-5:** Facilitation of agreement to cooperate on telecommunication/ICT development programmes between States and other stakeholders in the ICT ecosystem, based on requests from ITU Member States involved. Member States, and between Member	**D.2-1:** Enhanced capacity of the ITU membership to make available resilient telecommunication/ICT infrastructure and services. **D.2-2:** Strengthened capacity of Member States to effectively share information, find solutions, and respond to threats to cybersecurity, and to develop and implement national strategies and capabilities, including capacity building, encourage national, regional and international cooperation towards enhanced engagement among Member States and relevant players. **D.2-3:** Strengthened capacity of Member States to use telecommunications/ICTs for disaster risk reduction and management, to ensure availability of emergency telecommunications, and support cooperation in this area.	**D.3-1:** Strengthened capacity of Member States to enhance their policy, legal and regulatory frameworks conducive to development of telecommunications/ICTs. **D.3-2:** Strengthened capacity of Member States to produce high-quality, internationally comparable telecommunication/ICT statistics which reflect developments and trends in telecommunications/ICTs, based on agreed standards and methodologies. **D.3-3:** Improved human and institutional capacity of the ITU membership to tap into the full potential of telecommunications/ICTs. **D.3-4:** Strengthened capacity of the ITU membership to integrate telecommunication/ICT innovation in national development agendas and to develop strategies to promote public, private, and public-private partnerships. innovation initiatives, including through	**D.4-1:** Improved access to and use of telecommunication/ICT in least developed countries (LDCs), small island developing states (SIDS) and landlocked developing countries (LLDCs), and countries with economies in transition. **D.4-2:** Improved capacity of the ITU membership to accelerate economic and social development by leveraging and using new technologies and telecommunication/ICT services and applications. **D.4-3:** Strengthened capacity of the ITU membership to develop strategies, policies and practices for digital inclusion, in particular for the empowerment of women and girls, persons with disabilities and other persons with specific needs. **D.4-4:** Enhanced capacity of the ITU membership to develop telecommunication/ICT strategies and solutions on climate-change adaptation and mitigation and the use of green/renewable energy.

	D.1 Coordination: Foster international cooperation and agreement on telecommunication/ICT development issues	D.2 Modern and secure telecommunication/ICT infrastructure: Foster the development of infrastructure and services, including building confidence and security in the use of telecommunications/ICTs	D.3 Enabling environment: Foster an enabling policy and regulatory environment conducive to sustainable telecommunication/ICT development	D.4 Inclusive information society: Foster the development and use of telecommunications/ICTs and applications to empower people and societies for sustainable development
Objectives				
Outputs	**D.1-1:** World Telecommunication Development Conference (WTDC) and WTDC Final Report

D.1-2: Regional preparatory meetings (RPMs) and final reports of the RPMs

D.1-3: Telecommunication Development Advisory Group (TDAG) and reports of TDAG for the Director of BDT and for WTDC

D.1-4: Study groups and guidelines, recommendations and reports of study groups

D.1-5: Platforms for regional coordination, including regional development forums (RDFs)

D.1-6: Implemented telecommunication/ICT development projects and services related to regional initiatives. | **D.2-1:** Products and services on telecommunication/ICT infrastructure and services, wireless and fixed broadband, connecting rural and remote areas, improving international connectivity, bridging the digital standardization gap, conformance and interoperability, spectrum management and monitoring, the effective and efficient management and proper use of telecommunication resources within the mandate of ITU, and the transition to digital broadcasting, such as assessment studies, publications, workshops, guidelines, and best practices.

D.2-2: Products and services in building confidence and security in the use of telecommunications/ICTs, such as reports and publications, and to contribute to the implementation of national and global initiatives.

D.2-3: Products and services on disaster risk reduction and management, and emergency telecommunications, including assistance to enable Member States to address all phases of disaster management, such as early warning, response, relief, and restoration of telecommunication networks. | **D.3-1:** Products and services on telecommunication/ICT policy and regulation for better international coordination and coherence, such as assessment studies and other publications, and other platforms to exchange information.

D.3-2: Products and services on telecommunication/ICT statistics and data analysis, such as research reports, collection, harmonization and dissemination of high-quality, internationally comparable statistical data, and forums of discussion.

D.3-3: Products and services on capacity building and human skills development, including those on international Internet governance, such as online platforms, distance and face-to-face training programmes to enhance practical skills and shared material, taking into account partnerships with telecommunication/ICT education stakeholders.

D.3-4: Products and services on telecommunication/ICT innovation, such as knowledge-sharing and assistance, upon request, on developing a national innovation agenda; mechanisms for partnerships; development of projects, studies and telecommunication/ICT innovation policies. | **D.4-1:** Products and services on concentrated assistance to LDCs, SIDS and LLDCs and countries with economies in transition, to foster availability and affordability of telecommunications/ICTs.

D.4-2: Products and services on telecommunication/ICT policies supporting the development of the digital economy, ICT applications and new technologies, such as information sharing and support for their deployment, assessment studies, and toolkits.

D.4-3: Products and services on digital inclusion for girls and women and people with specific needs (elderly, youth, children and indigenous people, among others), such as awareness-raising on digital inclusion strategies, policies and practices, development of digital skills, toolkits and guidelines and forums of discussion to share practices and strategies.

D.4-4: Products and services on ICT climate-change adaptation and mitigation, such as promotion of strategies and dissemination of best practices on mapping vulnerable areas and developing information systems, metrics, and e-waste management. |

PART 2

THE FOUR OBJECTIVES OF THE TELECOMMUNICATION DEVELOPMENT BUREAU

OBJECTIVE 1

Coordination: Foster international cooperation and agreement on telecommunication/ICT development issues

Summary

Objective 1 aims to enhance high-level discussion, information-sharing and consensus-building on telecommunication/ICT developmental, technical and policy issues amongst members. In this regard, the purpose of Objective 1 is to develop, agree, implement, and review the work programmes and priorities for the four-year development cycle through the preparation and approval of the action plan and draft strategic plan by World Telecommunication Development Conferences, the preparatory process undertaken through the regional preparatory meetings, the implementation of the work programme for the ITU-D Study Groups, and the advisory role of the Telecommunication Development Advisory Group. In addition, activities under Objective 1 are aimed at enhancing the process and implementation of telecommunication/ICT development projects and regional initiatives.

Objective 1 includes the following outputs:

- World telecommunication development conference (WTDC) and WTDC final report
- Regional preparatory meetings (RPMS) and final report of the RPMS
- Telecommunication Development Advisory Group (TDAG) and reports of the TDAG for the BDT Director and for WTDC
- Study groups and guidelines, recommendations and reports of study groups
- Platforms for regional coordination, including regional development forums (RDFs)
- Implemented telecommunication/ICT development projects and services related to regional initiatives

For the years 2020 to 2023, the estimated human resources to be allocated to objective 1 represent **29.3%** of the total human resources of the Telecommunication Development Bureau.

Chart 1 provides the breakdown of the human resources allocated to objective 1 by department.

Chart 1
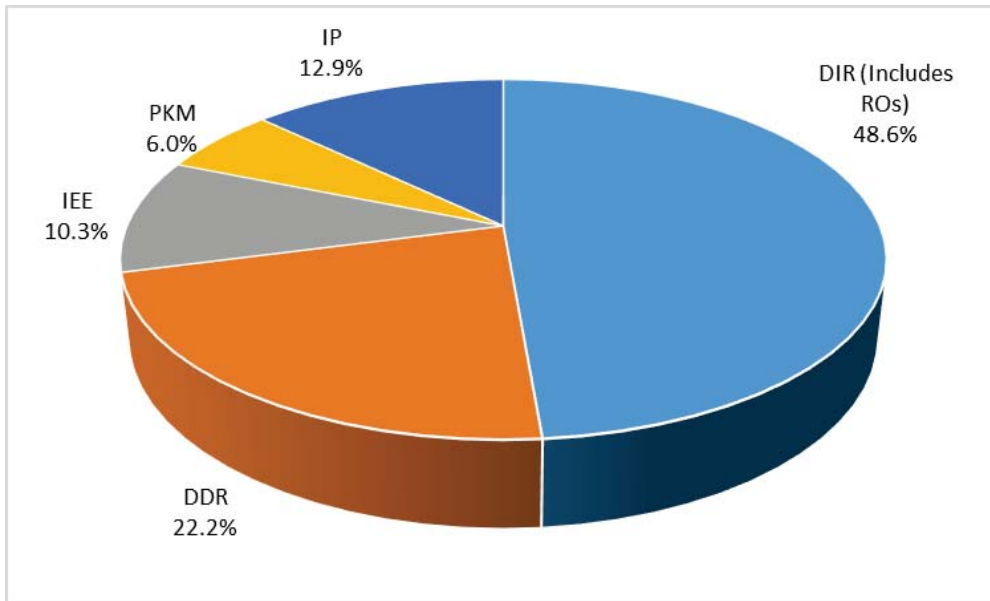
Output 1.1   World Telecommunication Development Conference (WTDC) and WTDC final report

Description

Held every four years, the World Telecommunication Development Conference (WTDC) is a high-level platform for Member States to development priorities, strategies and action plans to guide the work of ITU-D over the following four-year period. WTDC is a direct service to members that provides the pre-eminent high-level forum for discussion, information sharing and consensus building on telecommunication/ICT developmental technical and policy issues. A final report is produced by each WTDC. It includes the following items:

- Declaration;

- Contribution to the draft ITU strategic plan for the forthcoming relevant timeframe;

- Action plan;

- Regional Initiatives;

- Study Groups.

Result-based analysis

Outcomes	Outcome indicators
· Enhanced review and increased level of agreement on the draft ITU-D contribution to the draft ITU strategic plan, the WTDC Declaration and the WTDC Action Plan	· Membership level of understanding and sharing of the ITU-D objectives and outputs · Declaration approved – level of support/agreement

Annual expected results		Performance indicators (PIs)
2020	· 90% action plan implementation rate	· Action plan implementation rate
2021	· 100% action plan implementation rate	· Action plan implementation rate
2022	· 30% action plan implementation rate	· Action plan implementation rate
2023	· 50% action plan implementation rate	· Action plan implementation rate

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Stakeholders/ partners	· Insufficient participation of countries · Delayed responses To participation in preparatory and main meeting	High Low	Medium Low	· Close coordination with memberships to ensure participation in the WTDC · Active collaboration with membership taking into account lessons learned from past experiences
2. Implementation	· Objectives and Action plan to meet timelines	Medium	Medium	· Active collaboration with membership and partners to meet shortened timeline

Output 1.2   Regional preparatory meetings (RPMs) and final reports of RPMs

Description

WTDC, through Resolution 31 (Rev. Buenos Aires, 2017), instructs the Director of BDT "to organize, within the financial limitations, one regional preparatory meeting (RPM) per region for each of the six regions (if the relevant region deems appropriate), in partnership with all Member States in the region, even if they do not belong to any of the regional telecommunication organizations, as soon as possible before the last meeting of TDAG before the next WTDC, avoiding overlap with other relevant ITU-D meetings and making full use of ITU regional offices to facilitate such meetings".

Regional Preparatory Meetings are direct services to Members and are organized to achieve greater regional coordination and engage early on Members in the WTDC preparation process. They also seek to identify issues, at the regional level, that need to be addressed to foster the development of telecommunication/information and communication technologies (ICTs), taking into account the expression of pressing needs facing Member States and Sector Members of the region. The RPMs are expected to identify top priority areas, which are essential for the telecommunication/ICT development of countries of the region. A final report is produced by each RPM. It covers the following items:

- Identification of priority areas, including the draft WTDC Declaration, draft WTDC contribution to the ITU Strategic Plan, draft WTDC Action Plan and Study Groups

- Topics for ITU D future work (including working methods and Study Group questions) linked to the identified priority areas

- Priority setting for the Regional Initiatives

- Identification of Regional Initiatives for the Region

Result-based analysis

Outcomes	Outcome indicators
· Enhanced review and increased level of agreement on the draft ITU-D contribution to the draft ITU strategic plan, the WTDC Declaration, and the WTDC Action Plan	· Membership level of understanding and sharing of the ITU-D objectives and outputs · Declaration approved – level of support/ agreement

Annual expected results		Performance indicators (PIs)
2020	· Implementation of WTDC-17 decisions linked to RPMs outcomes	· Percentage of regional initiatives implemented in a timely manner and within available resources
2021	· Preparation of the reports on the outcomes of the 2020-2021 RPMs to WTDC-21	· Timely preparation of the reports (percentage of reports prepared and made available on time)
2022	· Implementation of WTDC-21 decisions linked to RPMs outcomes	· Percentage of regional initiatives implemented in a timely manner and within available resources
2023	· Implementation of WTDC-21 decisions linked to RPMs outcomes	· Percentage of regional initiatives implemented in a timely manner and within available resources

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Implementation	· Delayed Host Country Arrangements	Medium	Medium	· Active collaboration with Host Countries to meet targets as planned
2. Participation	· Delayed responses to participation	Low	Low	· Active collaboration with membership taking into account lessons learned from past experiences

Output 1.3 Telecommunication Development Advisory Group (TDAG) and TDAG reports for the Director of BDT and for WTDC

Description

TDAG prepares a report for the Director of the Telecommunication Development Bureau indicating action in respect of the following items:

• Working procedures;

• Cooperation and coordination with the Radiocommunication Sector, the Telecommunication Standardization Sector and the General Secretariat;

• Guidelines for the work of study groups;

• Progress in the implementation of the programme of work;

• Implementation of the operational plan of the preceding period.

Furthermore, TDAG prepares a report for the world telecommunication development conference on the matters assigned to it in accordance with No. 213A of the ITU Convention and transmits it to the Director for submission to the conference.

Additionally, TDAG may identify priority areas, including the draft WTDC Declaration, draft WTDC contribution to the ITU Strategic Plan, draft WTDC Action Plan and Study Groups.

Result-based analysis

Outcome	Outcome Indicators
· Assessment of the implementation of the WTDC Action Plan and of the WSIS Plan of Action	· Indicators of regional cooperation – Level of consensus

Annual expected results	Performance indicators (PIs)
2020 · Preparation and organization of the 25th meeting of TDAG and implementation of the recommendations and advice · Efficient support to the TDAG activities, including the TDAG meeting · Regional support to the TDAG activities, mainly the TDAG meetings	· Number of BDT submissions timely prepared and distributed · Number of contributions from members, including their posting on the web timely processed · Dissemination of the final summary of the TDAG meeting within 30 days following completion of the meeting · Relevance of the contributions received · Number of participants
2021 · Preparation and organization of the 26th meeting of TDAG and implementation of the recommendations and advice · Efficient support to the TDAG activities, including the TDAG meeting · Regional support to the TDAG activities, mainly the TDAG meetings	· Number of BDT submissions timely prepared and distributed · Number of contributions from members, including their posting on the web timely processed · Dissemination of the final summary of the TDAG meeting within 30 days following completion of the meeting · Relevance of the contributions received · Number of participants
2022 · Preparation and organization of the 27th meeting of TDAG and implementation of the recommendations and advice · Efficient support to the TDAG activities, including the TDAG meeting · Regional support to the TDAG activities, mainly the TDAG meetings	· Number of BDT submissions timely prepared and distributed · Number of contributions from members, including their posting on the web timely processed · Dissemination of the final summary of the TDAG meeting within 30 days following completion of the meeting · Relevance of the contributions received · Number of participants
2023 · Preparation and organization of the 28th meeting of TDAG and implementation of the recommendations and advice · Efficient support to the TDAG activities, including the TDAG meeting · Regional support to the TDAG activities, mainly the TDAG meetings	· Number of BDT submissions timely prepared and distributed · Number of contributions from members, including their posting on the web timely processed · Dissemination of the final summary of the TDAG meeting within 30 days following completion of the meeting · Relevance of the contributions received · Number of participants

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Stakeholders/ partners	· Insufficient participation of countries · Membership faces high rotation of authorities and of staff	High	Medium	· Close coordination with memberships to ensure participation in the TDAG
2. Finance	· Implementation of strategy & actions impacted by lack of resources	Medium	High	· Active collaboration with partners and membership to address identified gaps
3. Implementation	· Percentage implementation of strategy & actions	Medium	Medium	· Active collaboration to ensure timely submissions & contributions

Output 1.4   Study groups and guidelines, recommendations and reports of Study groups

Description

ITU-D study groups enable all Member States, Sector Members, Associates and Academia to share experiences, present ideas, exchange views and achieve consensus on strategies to address ICT priorities. ITU-D study groups study questions and are responsible for developing reports, guidelines and recommendations based on input received from the membership. Information is gathered through surveys, contributions and case studies, and is made available for easy access by the membership using content-management and web-publication tools.

Each ITU-D study group prepares a report indicating the progress of work and presents draft new or revised recommendations for consideration by the WTDC. Annual reports are presented by the Chairmen of each study group to TDAG.

WTDC-17 maintained two study groups (Study Group 1 and Study Group 2), determined the Questions to be studied by them, and appointed the chairmen and vice-chairmen of the ITU-D study groups. Pursuant to WTDC Resolution 2 (Rev. Buenos Aires, 2017), the mandate of Study Group 1 is to study the "Enabling environment for the development of telecommunications/ICTs", and of Study Group 2 to study "ICT services and applications for the promotion of sustainable development". The working procedures to be followed by the ITU-D study groups are set out in WTDC Resolution 1 (Rev. Buenos Aires, 2017).

Result-based analysis

Outcome	Outcome indicators
· Enhanced knowledge-sharing, dialogue and partnership among the ITU membership on telecommunication/ICT issues	· Work programmes undertaken in response to: Resolution 2 (Rev. Buenos Aires, 2017); work assigned by WTDC; ITU-D resolutions addressing specific areas of study through ITU-D study groups · Meetings and documentation for meetings processed in accordance with Resolution 1 (Rev. Buenos Aires, 2017) (and working guidelines) and in accordance with decisions of WTDC

Annual expected results	Performance indicators (PIs)
2020 · Expertise shared at Study Group meetings and Rapporteur Group meetings · Every region represented by at least 10 members (including remote participation) · Increased use of electronic tools to progress the work · Work programmes prepared in response to Resolution 2 reviewed · Some proposals to new study period prepared · 60% – Draft deliverables available. · Interim deliverables published (based on work plans)	· Number of relevant contribution submitted to Study Group meetings and Rapporteur Group meetings · Level of participation of members (all regions represented) · Number of downloads/remote participants/use of online discussion fora compared to previous period · Relevant and timely review of work programmes undertaken in response to WTDC Resolution 2 · Timely and efficient production of draft proposals
2021 · Expertise shared at Study Group meetings and Rapporteur Group meetings · Every region represented by at least 10 members (including remote participation) · Work programmes prepared in response to Resolution 2 reviewed · Increased use of electronic tools to progress the work · Reports, guidelines, Recommendations agreed on · 100% – Draft deliverables available. · Interim deliverables published (based on work plans) · Reports, guidelines, Recommendations published	· Number of relevant contributions submitted to Study Group meetings and Rapporteur Group meetings · Level of participation of members (all regions represented) · Relevant and timely review of work programmes undertaken in response to WTDC Resolution 2 · Number of downloads/remote participants/use of online discussion fora compared to previous period · Timely and efficient production of deliverables with appropriate quality · Timely and efficient preparation of proposals to the new study period
2022 · In accordance with WTDC-21 decisions	· In accordance with WTDC-21 decisions
2023 · In accordance with WTDC-21 decisions	· In accordance with WTDC-21 decisions

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Finance	• Insufficient financial resources	High	Low	• Prepare realistic estimates • Prepare forecasts based on coordination and communication with the members • Undertake reality checks based on historical data and experience gained during similar events in the past
2. Organizational matters	• Inadequate level of support for processing documents, facilitating the study group process and the running of meetings.	High	Medium	• Seek the necessary level of resources and support to ensure that the processing of documents and the smooth running of the meetings can be ensured
3. Stakeholders/ partners	• No or a limited number of contributions from the members to progress the work of the related study group Questions.	High	Low	• Improve communication with the members • Encourage, through all appropriate ways and means possible the submission of contributions from the membership on the topics under study in order to ensure that the agreed work plans can be implemented
4. Stakeholders/ partners	• Low or limited participation by the membership in the work of the related study group Questions.	High	Low	• Improve communication with the members • Raise further awareness of the planned and ongoing work of the study groups and their value to the membership

Output 1.5   Platforms for regional coordination, including regional development forums (RDFs)

Description

Regional Development Forums provide high-level dialogue between the BDT and decision-makers of ITU Member States and Sector Members. They serve as a platform for assessing strategic orientations that may have an impact on BDT's regional work plan in between world telecommunication development conferences (WTDCs). In this context, these forums will report on the activities of the Buenos Aires Action Plan, with particular emphasis on regional initiatives in order to get feedback from membership to adjust BDT's work in each region of the world.

Result-based analysis

Outcomes	Outcome indicators
· Enhanced review and increased level of agreement on the draft ITU-D contribution to the draft ITU strategic plan, the WTDC Declaration, and the WTDC Action Plan	· Membership level of understanding and sharing of the ITU-D objectives and outputs · Declaration approved – level of support/ agreement

Annual expected results		Performance indicators (PIs)
2020	· Regional priorities and expertise shared at the annual Regional Development Forums	· Number of participants Participants' level of satisfaction with regards to meeting organization, facilities and outcomes
2021	· Regional priorities and expertise shared at the annual Regional Development Forums	· Number of participants Participants' level of satisfaction with regards to meeting organization, facilities and outcomes
2022	· Regional priorities and expertise shared at the annual Regional Development Forums	· Number of participants Participants' level of satisfaction with regards to meeting organization, facilities and outcomes
2023	· Regional priorities and expertise shared at the annual Regional Development Forums	· Number of participants Participants' level of satisfaction with regards to meeting organization, facilities and outcomes

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Implementation	· Delayed Host Country Arrangements	Medium	Medium	· Active collaboration with Host Countries to meet targets as planned
2. Participation	· Delayed responses to participation	Low	Low	· Active collaboration with membership taking into account lessons learned from past experiences

Output 1.6   Implemented telecommunication/ICT development projects and services related to regional initiatives

Description

In order to implement the growing volume and variety of telecommunication/ICT development projects and services related to the regional initiatives, it is important for ITU-D to develop and strengthen partnerships to mobilize resources to promote sustainable telecommunication/ICT development.

To this end, partnerships and cooperation with diverse stakeholders, including other United Nations agencies, international and regional organizations, ITU Member States, ITU-D Sector Members, Associates, Academia and other relevant partners, from developed and developing countries, are necessary to enhance resource mobilization, to avoid duplication of efforts and support the ITU-D in the implementation of the outcomes of the WTDC.

Such cooperation will facilitate the development and promotion of the digital economy for all ITU Member States, through the organization of training sessions, workshop, sharing best practices, raising awareness and events with the involvement of stakeholders.

Result-based analysis

Outcome 1	Outcome indicators
· Enhanced process and implementation of telecommunication/ICT development projects and regional initiatives	· Increased use of electronic tools to progress the work on the study group work programmes · Number of partnerships signed, and resources mobilized · Number of development projects and projects related to regional initiatives implemented per region · Number of Member States assisted by BDT in implementing projects related to regional initiatives

Annual expected results	Performance indicators (PIs)
2020 · Enhance regional capacities on e-waste statistics and analysis · Assist countries on Digital Financial Inclusion policies · Assist countries on policies to create enabling environments for Big Data · Exchange of experiences among countries in the field of internet of things, big data, and smart communities and cities, and study their resulting effects · Provide assistance to countries on policy guidelines, regulatory and technical frameworks in the area of child online protection and combatting all forms of cyber threat · Provide assistance to LDCs to establish, improve, or enhance national CIRT capabilities	· Number of regional projects on e-waste statistics and analysis implemented · Number of countries assisted on Digital Financial Inclusion Policies · Number of countries assisted in creating enabling environments for Big Data · Number of high level events and forum · Number of policy guidelines and regulatory frameworks developed and countries assisted · Number of countries assisted on CIRT services and its related human capacity
2021 · Formulate and implement a project on Digital Financial Inclusion formulated and implemented in collaboration with interested stakeholders · Formulate and implement a project on IoT, Smart Cities and Big Data Hackathon · Assess and review EMF measurement · Formulate and implement project on Big Data for Development with interested stakeholders · Assist countries on Digital Financial Inclusion policies · Strengthen national response and incident handling capacities	· Number of countries benefitted from Digital Financial Inclusion project · Number of projects on IoT, Smart Cities and Big Data Hackathon implemented · Number of regional projects on review and assess of health consequences from EMF exposure implemented · Number of stakeholders involved in the Big Data for Development Project · Number of countries assisted on Digital Financial Inclusion Policies · Number of national CIRTs participated in the cyber drill

Annual expected results		Performance indicators (PIs)
2022	• Assist countries on Digital Financial Inclusion policies • Strengthen national response capacities and upgrading infrastructure of Emergency Rescue • Strengthen national response capacities and upgrading infrastructure of Emergency Rescue • Assist countries on policies to create enabling environments for Big Data • Build capacity with regard to the use of big data and Internet of things • Build capacity with regard to cybersecurity and critical infrastructure protection	• Number of countries assisted on Digital Financial Inclusion Policies • Number of projects on Early Warning Systems implemented • Number of countries assisted in creating enabling environments for Big Data • Number of participants trained • Number of participants trained
2023	• Assist countries on Digital Financial Inclusion policies • Strengthen national response capacities and upgrading infrastructure of Emergency Rescue • Strengthen national response capacities and upgrading infrastructure of Emergency Rescue • Assist countries on policies to create enabling environments for Big Data • Build capacity with regard to the use of big data and Internet of things • Build capacity with regard to cybersecurity and critical infrastructure protection	• Number of countries assisted on Digital Financial Inclusion Policies • Number of projects on Early Warning Systems implemented • Number of countries assisted in creating enabling environments for Big Data • Number of participants trained • Number of participants trained

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Government and ICT public Institution commitment at national level	· Half of the stakeholders who are in need of Emergency Telecoms, E-waste and EMF support if not more become not interested in these priority areas	Medium	Low	· Raise awareness of policy makers and political leaders at national level and collaborate, as much as possible, with all key partners
2. Finance	· Many difficulties in mobilizing enough resources for projects (Mobilized financial resources are insufficient)	Medium	High	· Coordinate with the members and non-members for fund raising to support projects implementations
3. Member state and sector member capabilities in formulating projects	· More projects are requested by Member states	Medium	High	· Assist Member states in project implementation
4. Security	· Security status in some Regions	Medium	High	· Working with same countries

Outcome 2

· Facilitation of agreement to cooperate on telecommunication/ICT development programmes between Member States, and between Member States and other stakeholders in the ICT ecosystem, based on requests from ITU Member States involved

Outcome indicators

· Number of partnerships signed, and resources mobilized
· Number of requests of administrations to the ITU to facilitate agreements
· Number of agreements facilitated by ITU

Annual expected results		Performance indicators (PIs)
2020	· Strengthening the capacity of key regional stakeholders and encourage complementarity · Building capacities with regard to the establishment of regional and sub-regional agreements · Draft and facilitate agreements	· Number of stakeholders engaged · Number of requests of administrations to the ITU to facilitate agreements · Number of agreements facilitated by the ITU · Number of partnerships signed and resources mobilized
2021	· Strengthening the capacity of key regional stakeholders and encourage complementarity · Building capacities with regard to the establishment of regional and sub-regional agreements · Draft and facilitate agreements	· Number of stakeholders engaged · Number of requests of administrations to the ITU to facilitate agreements · Number of agreements facilitated by the ITU · Number of partnerships signed and resources mobilized
2022	· Strengthening the capacity of key regional stakeholders and encourage complementarity · Building capacities with regard to the establishment of regional and sub-regional agreements · Draft and facilitate agreements	· Number of stakeholders engaged · Number of requests of administrations to the ITU to facilitate agreements · Number of agreements facilitated by the ITU · Number of partnerships signed and resources mobilized
2023	· Strengthening the capacity of key regional stakeholders and encourage complementarity · Building capacities with regard to the establishment of regional and sub-regional agreements · Draft and facilitate agreements	· Number of stakeholders engaged · Number of requests of administrations to the ITU to facilitate agreements · Number of agreements facilitated by the ITU · Number of partnerships signed and resources mobilized

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Security	· Security status in some Regions	Medium	High	· Working with same countries
2. Finance	· Availability of financial resources	Medium	Medium	· Resources mobilization

OBJECTIVE 2

Modern and secure telecommunication/ICT Infrastructure: Foster the development of infrastructure and services, including building confidence and security in the use of telecommunications/ICTs

Summary

The purpose of Objective 2 is to assist the ITU membership by providing assistance to developing modern and secure telecommunication/ICT infrastructure and services, including building confidence and security in the use of telecommunications/ICTs. It will further support countries in all phases of disaster management and to help countries take advantage of ICTs to increase disaster resilience and reduce its impact.

Objective 2 includes the following outputs:

- Products and services on telecommunication/ICT infrastructure and services, wireless and fixed broadband, connecting rural and remote areas, improving international connectivity, bridging the digital standardization gap, conformance and interoperability, spectrum management and monitoring, the effective and efficient management and proper use of telecommunication resources within the mandate of ITU, and the transition to digital broadcasting, such as assessment studies, publications, workshops, guidelines, and best practices.

- Products and services in building confidence and security in the use of telecommunications/ICTs, such as reports and publications, and to contribute to the implementation of national and global initiatives.

- Products and services on disaster risk reduction and management, and emergency telecommunications, including assistance to enable Member States to address all phases of disaster management, such as early warning, response, relief, and restoration of telecommunication networks.

For the years 2020 to 2023, the estimated human resources to be allocated to Objective 2 represent **20.1%** of the total human resources of the Telecommunication Development Bureau.

Chart 2 provides the breakdown of the human resources allocated to Objective 2 by department.

Chart 2
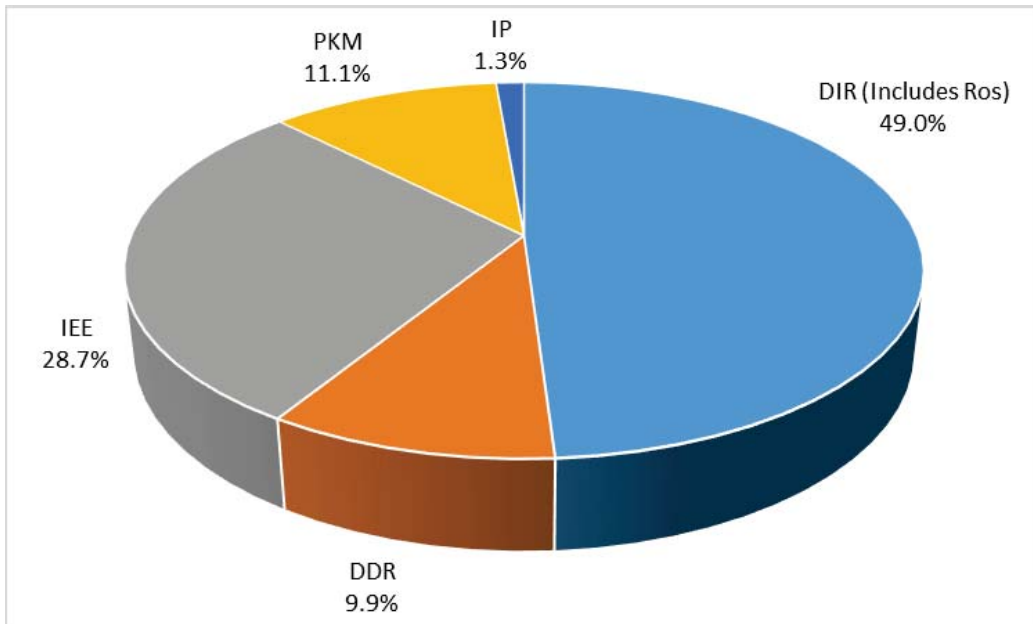
IP
1.3%

PKM
11.1%

DIR (Includes Ros)
49.0%

IEE
28.7%

DDR
9.9%

Output 2.1   Products and services on telecommunication/ICT infrastructure and services, wireless and fixed broadband, connecting rural and remote areas, improving international connectivity, bridging the digital standardization gap, conformance and interoperability, spectrum management and monitoring and the effective and efficient management and proper use of telecommunication resources, within the mandate of ITU, and the transition to digital broadcasting, such as assessment studies, publications, workshops, guidelines, and best practices

Description

Infrastructure is central for enabling universal, sustainable, ubiquitous and affordable access to ICTs and services for all.

The ICT sector is characterized by rapid technological change, and by convergence of technological platforms for telecommunications, information delivery, broadcasting and computing which are key enablers for the digital economy. The deployment of common broadband, including through fixed and mobile, technology and network infrastructures for multiple telecommunication services and applications and the evolution to all IP-based wireless and wired future networks (NGNs) and their evolutions open up opportunities but also imply significant challenges for developing countries. When referring to communications we include people-to-people, people-to-things and things-to-things communications as well as new or emerging technologies. Also notable is the worldwide transition from analogue to digital broadcasting, enabling more efficient use of spectrum and higher quality audio and video delivery.

Result-based analysis

Outcomes	Outcome indicators
· Enhanced capacity of the ITU membership to make available resilient telecommunication/ ICT infrastructure and services	· Number of guidelines, handbooks, assessment studies and publications finalized on relevant subjects in countries that BDT contributed to developing
	· Number of users/subscribers accessing the tools on relevant subjects in countries that BDT contributed to developing
	· Number of experts participating in trainings, seminars and workshops for the relevant subjects in countries and their satisfaction that BDT contributed to developing

Annual expected results	Performance indicators (PIs)
2020 · 15 countries and 2 sub-regions improved Conformance and Interoperability (C&I) capacity · 20% of the ITU Member States enhanced broadband and their international connectivity, with these values added to the ITU Interactive Transmission Maps · 15 Member States enhanced their capacity on Migration to NGN; new technology adoption; smart grid; management of telephone numbering resources · 10 countries enhanced their capacity of Members to implement Broadband networks: Wired and wireless technologies, including International Mobile Telecommunications (IMT), satellite communications, support for Internet of Things (IoT), IPv6 and IXPs · In 8 developing countries Rural Communication was improved for access, backhaul, power supply, satellite, and business models for financial and operational sustainability · At least 70% of the ITU Member States have switched off analogue terrestrial television broadcasting · 75% of the Member States have NTFA, have spectrum management strategy or masterplan or using SMS4DC and 45% of the ITU Member States have regional cross-border frequency coordination agreement · Awareness increased and guidelines prepared on broadcasting and spectrum management topics · 15 countries supported on spectrum management and broadcasting topics	· Number of assessment studies conducted at national and regional level for assessing the status of C&I programmes · Number of Mutual Recognition Agreements or Technical collaboration on C&I · Number of publication, reports, and studies prepared on related C&I topics · Number of experts/countries trained on C&I programmes and test domains · Number of high-speed terrestrial networks (ICT backbones) added to the Map (km) · Number of network operators added to the ITU Map · Number of Reports produced on Mapping the Infrastructure in countries or regions · Number of Workshops provided on broadband, ICT Infrastructure Mapping, and international connectivity · Number of countries supported for migration to NGN · Number of publications and reports on NGN Migration Strategy · Number of countries supported for Broadband Network implementation · Number of IXPs implemented · Number of countries adopting the IPv6 implementation · Number of Communities and disadvantaged groups in developing countries connected to ICTs and broadband in rural areas · Number of countries still with analogue terrestrial television broadcasting · Number of countries without NTFA · Roadmaps, case studies, guidelines and reports prepared for digital broadcasting implementation, EMF and spectrum management related topics

Annual expected results	Performance indicators (PIs)
	· Percentage of Member States supported in spectrum management, EMF and broadcasting · Number of Member states using SMS4DC
2021 · 15 countries and 2 sub-regions improved Conformance and Interoperability (C&I) capacity · 25% of the ITU Member States enhanced broadband and their international connectivity, with these values added to the ITU Interactive Transmission Maps · 15 Member States enhanced their capacity on Migration to NGN; new technology adoption; smart grid; management of telephone numbering resources · 10 countries enhanced their capacity of Members to implement Broadband networks: Wired and wireless technologies, including International Mobile Telecommunications (IMT), satellite communications, support for Internet of Things (IoT), IPv6 and IXPs · In 8 developing countries Rural Communication was improved for access, backhaul, power supply, satellite, and business models for financial and operational sustainability · At least 75% of the ITU Member States have switched off analogue terrestrial television broadcasting · 80% of the Member States have NTFA, have spectrum management strategy or masterplan or using SMS4DC and 50% of the ITU Member States have regional cross-border frequency coordination agreement · Awareness increased and guidelines prepared on broadcasting and spectrum management topics · 15 countries supported on spectrum management and broadcasting topics	· Number of assessment studies conducted at national and regional level for assessing the status of C&I programmes · Number of Mutual Recognition Agreements or Technical collaboration on C&I · Number of publication, reports, and studies prepared on related C&I topics · Number of experts/countries trained on C&I programmes and test domains · Number of high-speed terrestrial networks (ICT backbones) added to the Map (km) · Number of network operators added to the ITU Map · Number of Reports produced on Mapping the Infrastructure in countries or regions · Number of Workshops provided on broadband, ICT Infrastructure Mapping, and international connectivity · Number of countries supported for migration to NGN · Number of publications and reports on NGN Migration Strategy · Number of National strategies for the relevant subjects · Number of Communities and disadvantaged groups in developing countries connected to ICTs and broadband in rural areas · Number of countries still with analogue terrestrial television broadcasting · Number of countries without NTFA

Annual expected results	Performance indicators (PIs)
	· Roadmaps, case studies, guidelines and reports prepared for digital broadcasting implementation and spectrum management related topics · Percentage of Member States supported in spectrum management, EMF and broadcasting · Number of Member states using SMS4DC
2022 · 15 countries and 2 sub-regions improved Conformance and Interoperability (C&I) capacity · 30% of the ITU Member States enhanced broadband and their international connectivity, with these values added to the ITU Interactive Transmission Maps · 15 Member States enhanced their capacity on Migration to NGN; new technology adoption; smart grid; management of telephone numbering resources · 10 countries enhanced their capacity of Members to implement Broadband networks: Wired and wireless technologies, including International Mobile Telecommunications (IMT), satellite communications, support for Internet of Things (IoT), IPv6 and IXPs · In 8 developing countries Rural Communication was improved for access, backhaul, power supply, satellite, and business models for financial and operational sustainability · At least 80% of the ITU Member States have switched off analogue terrestrial television broadcasting · 90% of the Member States have NTFA, have spectrum management strategy or masterplan or using SMS4DC and 55% of the ITU Member States have regional cross-border frequency coordination agreement	· Number of assessment studies conducted at national and regional level for assessing the status of C&I programmes · Number of Mutual Recognition Agreements or Technical collaboration on C&I · Number of publication, reports, and studies prepared on related C&I topics · Number of experts/countries trained on C&I programmes and test domains · Number of high-speed terrestrial networks (ICT backbones) added to the Map (km) · Number of network operators added to the ITU Map · Number of Reports produced on Mapping the Infrastructure in countries or regions · Number of Workshops provided on broadband, ICT Infrastructure · Mapping, and international connectivity · Number of countries supported for migration to NGN · Number of publications and reports on NGN Migration Strategy · Number of Countries implementing Smart Grid Strategies · Number of countries supported for Broadband Network implementation

Annual expected results	Performance indicators (PIs)
· Awareness increased and guidelines prepared on broadcasting and spectrum management topics · 15 countries supported on spectrum management and broadcasting topics	· Number of IXPs implemented · Number of countries adopting the IPv6 implementation · Number of Communities and disadvantaged groups in developing countries connected to ICTs and broadband in rural areas · Number of countries still with analogue terrestrial television broadcasting · Number of countries without NTFA · Roadmaps, case studies, guidelines and reports prepared for digital broadcasting implementation and spectrum management related topics · Percentage of Member States supported in spectrum management, EMF and broadcasting · Number of Member states using SMS4DC
2023 · 10 countries and 2 sub-regions improved Conformance and Interoperability (C&I) capacity · 35% of the ITU Member States enhanced broadband and their international connectivity, with these values added to the ITU Interactive Transmission Maps · 10 Member States enhanced their capacity on Migration to NGN; new technology adoption; smart grid; management of telephone numbering resources · 10 countries enhanced their capacity of Members to implement Broadband networks: Wired and wireless technologies, including International Mobile Telecommunications (IMT), satellite communications, support for Internet of Things (IoT), IPv6 and IXPs · In 8 developing countries Rural Communication was improved for access, backhaul, power supply, satellite, and business models for financial and operational sustainability	· Number of assessment studies conducted at national and regional level for assessing the status of C&I programmes · Number of Mutual Recognition Agreements or Technical collaboration on C&I · Number of publication, reports, and studies prepared on related C&I topics · Number of experts/countries trained on C&I programmes and test domains · Number of high-speed terrestrial networks (ICT backbones) added to the Map (km) · Number of network operators added to the ITU Map · Number of Reports produced on Mapping the Infrastructure in countries or regions · Number of Workshops provided on broadband, ICT Infrastructure · Mapping, and international connectivity

Annual expected results	Performance indicators (PIs)
· At least 85% of the ITU Member States have switched off analogue terrestrial television broadcasting · Most of the Member States have NTFA, have spectrum management strategy or masterplan or using SMS4DC and 60% of the ITU Member States have regional cross-border frequency coordination agreement · Awareness increased and guidelines prepared on broadcasting and spectrum management topics · 15 countries supported on spectrum management and broadcasting topics	· Number of countries supported for migration to NGN · Performance indicators (PIs) · Number of publications and reports on NGN Migration Strategy · Number of Countries implementing Smart Grid Strategies · Number of countries supported for Broadband Network implementation · Number of IXPs implemented · Number of countries adopting the IPv6 implementation · Number of Communities and disadvantaged groups in developing countries connected to ICTs and broadband in rural areas · Number of countries still with analogue terrestrial television broadcasting · Number of countries without NTFA · Roadmaps, case studies, guidelines and reports prepared for digital broadcasting implementation and spectrum management related topics · Percentage of Member States supported in spectrum management, EMF and broadcasting · Number of Member states using SMS4DC

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Finance	• Lack of resources to provide the appropriate support level in case of high demand from countries	Medium	Medium	• Appropriate budget forecast to be prepared • Mobilization of additional/extra-budgetary resources when required
2. Competency/ knowledge	• Lack of qualified experts in the field of activity	High	Medium	• Anticipate the resources requirements and initiate recruitment procedures as soon as possible • Create and keep up-to-date a roster for experts
3. Stakeholders/ partners	• Insufficient commitment by countries	High	Low	• Ensure and improve cooperation with countries so as to guarantee appropriate level of involvement by countries
4. Security	• Security status	Medium	High	• Working with same countries

Output 2.2 Products and services for building confidence and security in the use of telecommunications/ICTs, such as reports and publications, and for contributing to the implementation of national and global initiatives

Description

ICTs are integral to the economic and social development of all nations as well as to the development of the information society. Security is an essential element of the operation and use of ICTs and requires that all users are aware of risks factors and take appropriate action to ensure security in accordance with their specific role.

As the use of ICT continues to grow especially with the deployment of emerging technologies such as IoT, addressing cybersecurity challenges and combating the transmission of spam would including malware/spyware, continue to be a priority among members. During the last four years, the ITU-D continued to work in this area.

BDT undertook many activities that offered development assistance to members and encouraged cooperation among members, while Q-3/2 developed products and materials to support countries in developing national cybersecurity capabilities, to convene experts, and to contribute to ongoing information sharing on best practices. The Question also identified key areas of common concern as well as gaps, based on contributions to a compendium and a survey, respectively

Result-based analysis

Outcomes	Outcome indicators
· Strengthened Member capacity of Member States to effectively share information, find solutions, and respond to threats to cybersecurity, and to develop and implement national strategies and capabilities, including capacity building, encouraging national, regional and international cooperation toward enhanced engagement among Member States and relevant players	· Number of national cybersecurity strategies implemented in countries that BDT contributed to developing · Number of CERTs that BDT has contributed to establishing · Number of countries where BDT provided technical assistance and improved cybersecurity capability and awareness · Number of cyberattacks repelled by CERTs established with the support of BDT

Annual expected results	Performance indicators (PIs)
2020 · 70% of Member States have CIRT established and cooperating with each other · 50% of Member States Cyber Threat Intelligence capabilities in place · Facilitated regional and subregional cooperation among CIRTs · Needs assessment performed in 10 countries · 2020 edition of the GCI published · Finalize the establishment of Cybersecurity Training Catalogue with Partners	· Number of countries with CSIRTS/CIRTs/CERTs in place · Number of cyberdrills organized · Number of activities implemented jointly with partners, including needs assessment · Number of countries participated in the GCI and impact-based analysis on the progress in Cybersecurity · Number of Member States employing ITU Academy for Human and Institutional Capacity Building in the area of Cybersecurity
2021 · 70% of Member States have cybersecurity strategies and policies in place · 75% of Member States have CIRT established and cooperating with each other · 60% of Member States Cyber Threat Intelligence capabilities in place · Needs assessment performed in 10 countries · 2021 edition of the GCI published	· Number of countries with national strategy in place · Number of countries with CSIRTS/CIRTs/CERTs in place · Number of cyberdrills organized · Number of activities implemented jointly with partners, including needs assessment · Number of countries participated in the GCI and impact-based analysis on the progress in Cybersecurity
2022 · 75% of Member States have cybersecurity strategies and policies in place · 80% of Member States have CIRT established and cooperating with each other · 75% of Member States Cyber Threat Intelligence capabilities in place · Needs assessment performed in 10 countries · 2022 edition of the GCI published	· Number of countries with national strategy in place · Number of countries with CSIRTS/CIRTs/CERTs in place · Number of cyberdrills organized · Number of activities implemented jointly with partners, including needs assessment · Number of countries participated in the GCI and impact-based analysis on the progress in Cybersecurity

Annual expected results	Performance indicators (PIs)
2023 · 80% of Member States have cybersecurity strategies and policies in place · 85% of Member States have CIRT established and cooperating with each other · 80% of Member States Cyber Threat Intelligence capabilities in place · Needs assessment performed in 10 countries · 2023 edition of the GCI published	· Number of countries with national strategy in place · Number of countries with CSIRTS/CIRTs/CERTs in place · Number of cyberdrills organized · Number of activities implemented jointly with partners, including needs assessment · Number of countries participated in the GCI and impact-based analysis on the progress in Cybersecurity

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Finance	• Lack of resources to provide the appropriate support level in case of high demand from countries • Mobilization of financial resources not sufficient for project development	Medium Medium	Medium High	• Closely monitor budgets and planned expenditures, seek lowest cost options • Expend efforts for mobilization of additional/extra-budgetary resources when required • Implementation of activities on a cost sharing basis • Raise awareness of political leaders at national level on the importance of investing in cybersecurity
2. Competence	• Lack of qualified experts in the concerned cybersecurity domains	High	Medium	• Anticipate resource requirements and initiate recruitment procedures as soon as possible • Keep up-to date the roster of experts • Support of HQ to fulfill necessary requirements • Make adequate staff distribution
3. Stakeholders/ Partners	• Insufficient commitment of countries and/or at local level • Insufficient participation of countries due to Membership's high rotation of authorities and of staff	Medium High	Low Medium	• Improve cooperation with countries so as to guarantee appropriate level of involvement by countries and/or at the local level • Close coordination with memberships to ensure participation in ITU events
4. Security	• Security status in some regions	Medium	High	• Working with same countries

Output 2.3 Products and services on disaster risk reduction and management and emergency telecommunications, including assistance to enable Member States to address all phases of disaster management, such as early warning, response, relief and restoration of telecommunication networks

Description

Countries throughout the world are experiencing increased numbers of natural and man-made disasters, with a disproportionate impact on developing countries. LDCs, SIDS and LLDCs are particularly vulnerable to the impact that disasters can have on their economies and infrastructures, and such countries often lack the capacity to respond to disasters.

The critical importance of using telecommunications/ICTs to respond to these devastating phenomena is widely recognized.

Because of the role telecommunications/ICTs play in all phases of a disaster – preparedness, response, rehabilitation/recovery – it is important to develop disaster telecommunications preparedness plans and strategies, including taking account of the need for resilient and redundant infrastructures and systems as part of disaster risk reduction and early warning.

In line with WTDC Resolution 34 (Rev. Buenos Aires, 2017), many countries have benefited from this outcome. In the preparedness phase, ITU partners with countries and sector members to implement early warning systems in the most affected areas.

Disasters often extend beyond the borders of a State, and effective disaster management may involve the deployment of efforts by more than one country in order to prevent loss of human lives and regional crisis. Prior coordination and collaboration among disaster-management experts, including governments, the private sector, international organizations, academia and non-governmental organizations, before disasters increases the probability of saving human lives when rescue operations are conducted and thereby mitigate the consequences of a disaster.

Member States should take account of a diverse range of telecommunication/ICT solutions that are appropriate and commonly available for disaster response and mitigation, including those provided by amateur radio services and satellite and terrestrial network services/facilities, and by Machine to Machine (M2M)/Internet of Things (IoT) based technological solutions, taking into account persons with disabilities and specific needs.

Result-based analysis

Outcomes	Outcome indicators
· Strengthened capacity of Member States to use telecommunication/ICT for disaster risk reduction and management, to ensure availability of emergency telecommunications, and support cooperation in this area	· Number of Member States where BDT assisted with disaster-relief efforts both through provision of equipment and through infrastructure damage assessments in the aftermath of a disaster · Number of Member States that received BDT assistance in the development and establishment of early warning systems · Number of Member States that received BDT assistance in developing and establishing national emergency telecommunications plans

Annual expected results		Performance indicators (PIs)
2020	· 100% of countries requesting ITU to deploy emergency telecommunication equipment in the aftermath of a disaster are assisted · At least two new Member States are assisted in developing a national emergency telecommunication plan	· Number of Member States assisted in the case of disaster · Number of Member States assisted in developing a national emergency telecommunication plan
2021	· 100% of countries requesting ITU to deploy emergency telecommunication equipment in the aftermath of a disaster are assisted · At least two new Member States are assisted in developing a national emergency telecommunication plan	· Number of Member States assisted in the case of disaster · Number of Member States assisted in developing a national emergency telecommunication plan
2022	· 100% of countries requesting ITU to deploy emergency telecommunication equipment in the aftermath of a disaster are assisted · At least two new Member States are assisted in developing a national emergency telecommunication plan	· Number of Member States assisted in the case of disaster · Number of Member States assisted in developing a national emergency telecommunication plan
2023	· 100% of countries requesting ITU to deploy emergency telecommunication equipment in the aftermath of a disaster are assisted · At least two new Member States are assisted in developing a national emergency telecommunication plan	· Number of Member States assisted in the case of disaster · Number of Member States assisted in developing a national emergency telecommunication plan

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Finance	· Lack of financial resources to provide requested support to Member States	High	High	· Appropriate budget allocation, resource mobilization, and partnerships
2. Stakeholders/ partners	· Lack of support and cooperation from partners	Medium	Medium	· Reach out and develop close cooperation with other organizations to provide support together
3. Human resources	· Insufficient human resources to cope with demand when multiple disasters occur	High	Medium	· Perform capacity building activities for ITU field staff and ITU Member States
4. Government and Stakeholders commitments	· Less than 50% of UN agencies, partners and key public administrations/ institutions working on Emergency Telecom (ET) committed to support the expected results on ET	Medium	Low	· Raise awareness of importance of ET to members and stakeholders · Collaborate, as much as possible, with all key partners (concerned by the ET)

OBJECTIVE 3

Enabling environment: Foster an enabling policy, and regulatory environment conducive to sustainable telecommunication/ICT development

Summary

The purpose of Objective 3 is to support the ITU membership in establishing the enabling legal and regulatory environment to facilitate the development of and improve access to ICT-based applications and services, particularly in underserved and rural areas, achieving trust and confidence in the safe use of ICTs, and increasing the robustness of networks; to help countries navigate the fast changing telecommunication environment through innovation and accelerate digital transformation that fosters sustainable growth of the digital economy.

Objective 3 includes the following outputs:

- Products and services on telecommunication/ICT policy and regulation for better international coordination and coherence, such as assessment studies and other publications, and other platforms to exchange information.

- Products and services on telecommunication/ICT statistics and data analysis, such as research reports, collection, harmonization and dissemination of high-quality, internationally comparable statistical data, and forums of discussion.

- Products and services on capacity building and human skills development, including those on international Internet governance, such as online platforms, distance and face-to-face training programmes to enhance practical skills and shared material, taking into account partnerships with telecommunication/ICT education stakeholders.

- Products and services on telecommunication/ICT innovation, such as knowledge-sharing and assistance, upon request, on developing a national innovation agenda; mechanisms for partnerships; development of projects, studies and telecommunication/ICT innovation policies.

For the years 2020 to 2023, the estimated human resources to be allocated to Objective 3 represent **30.7 %** of the total human resources of the Telecommunication Development Bureau.

Chart 3 provides the breakdown of the human resources allocated to Objective 3 by department.

Chart 3
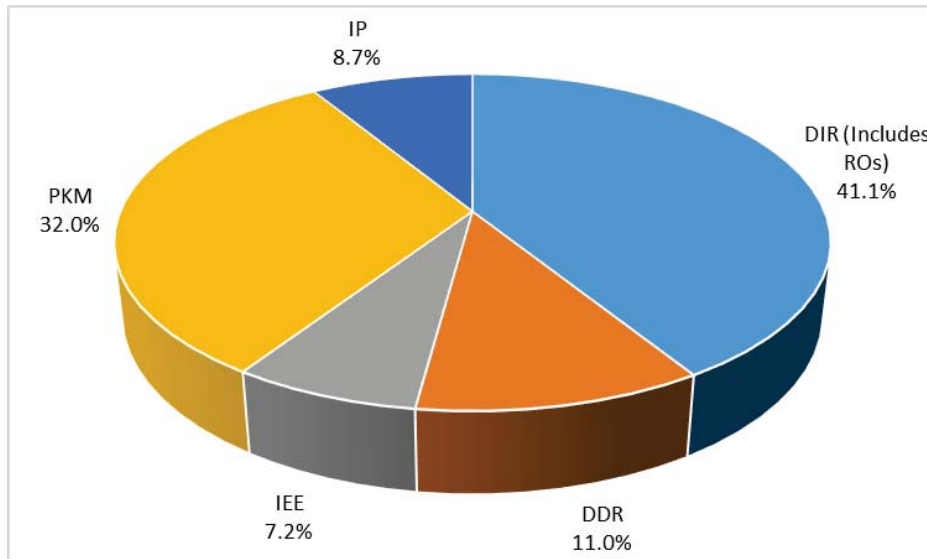
Output 3.1 Products and services on telecommunication/ICT policy and regulation for better international coordination and coherence, such as assessment studies and other publications, and other platforms to exchange information

Description

In evolving towards a digital economy, an enabling environment for ICTs is increasingly recognized as critical for social and economic growth and competitiveness of countries. The ICT sector and the surrounding ecosystem is evolving rapidly and there is an even greater need for inclusive dialogue, cooperation and collaboration, including with other sectors where ICTs are bringing value. A sound and clear policy and regulatory environment that also considers the needs of other sectors is needed to ensure that all can benefit from ICT services.

Result-based analysis

Outcome	Outcome indicators
· Strengthened capacity of Member States to enhance their policy, legal and regulatory frameworks conducive to development of telecommunications/ICTs	· Timely release of the annual questionnaires to Member States (on regulation, economics and finance) and of data on the Policy, Regulation, Economics and Finance (PREF) knowledge centre and the ICT Eye database
	· Number of publications, bestpractice guidelines, online resources and toolkits developed and released on ICT policy and regulation as well as on economics and finance, and number of website views/downloads of regulatory and policy data and publications and information on the ICT Eye online platform
	· Number of participants in the Global Symposium for Regulators, in regional regulatory and economic forums and workshops, and in strategic dialogues on topical regulatory and policy issues, and satisfaction rates of participants

Annual expected results	Performance indicators (PIs)
2020 · Awareness raised on policy, legal and regulatory frameworks conducive to development of telecommunications/ICTs through enhanced availability for Membership of high-quality regulatory, economics and finance data, research and analysis for evidence-based decision making · Enhanced knowledge exchange through successful implementation of regional and global forums and strategic Dialogues including Global Symposium for Regulators, and active contribution by Membership to relevant study group questions · Improved availability and online access of high quality data, research and analysis on telecommunications/ICT policy, regulatory and economic issues, including through the adoption of GSR Best Practice Guidelines, the publication of the updated ICT Regulatory Tracker, and the availability of at least 10 publications, studies and papers	· Timely release of the annual questionnaires to Members States (Regulatory, Economics and Finance) · Completed data on the PREF knowledge center (Policy, Regulation, Economics & Finance), including the ICT Regulatory Tracker and the ICT Eye · Number of publications, best practice guidelines, and other online resources developed and released on ICT policy and regulation as well as on economics and finance · Number of website views/downloads of regulatory and policy data and publications · Number of participants in Global Symposium for Regulators, and in strategic dialogues and forums on topical regulatory, economic and policy issues · Number of participants in the regional enabling environment awareness activities
2021 · Awareness raised on policy, legal and regulatory frameworks conducive to development of telecommunications/ICTs through enhanced availability for Membership of high-quality regulatory, economics and finance data, research and analysis for evidence-based decision making · Enhanced knowledge exchange through successful implementation of regional and global forums and strategic Dialogues including Global Symposium for Regulators · Improved availability and online access of high quality data, research and analysis on telecommunications/ICT policy, regulatory and economic issues, including through the adoption of GSR Best Practice Guidelines, the publication of the updated ICT Regulatory Tracker, and the availability of at least 10 publications, studies and papers	· Timely release of the annual questionnaires to Members States (Regulatory, Economics and Finance) · Completed data on the PREF knowledge center (Policy, Regulation, Economics & Finance), including the ICT Regulatory Tracker · Number of publications, best practice guidelines, and other online resources developed and released on ICT policy and regulation as well as on economics and finance number of website views/downloads of regulatory and policy data and publications · Number of participants in Global Symposium for Regulators, and in strategic dialogues and forums on topical regulatory, economic and policy issues · Number of participants in the regional enabling environment awareness activities.

Annual expected results	Performance indicators (PIs)
2022 · Awareness raised on policy, legal and regulatory frameworks conducive to development of telecommunications/ICTs through enhanced availability for Membership of high-quality regulatory, economics and finance data, research and analysis for evidence-based decision making · Enhanced knowledge exchange through successful implementation of regional and global forums and strategic Dialogues including Global Symposium for Regulators · Improved availability and online access of high quality data, research and analysis on telecommunications/ICT policy, regulatory and economic issues, including through the adoption of GSR Best Practice Guidelines, the publication of the updated ICT Regulatory Tracker, and the availability of at least 10 publications, studies and papers	· Timely release of the annual questionnaires to Members States (Regulatory, Economics and Finance) · Completed data on the PREF knowledge center (Policy, Regulation, Economics & Finance), including the ICT Regulatory Tracker · Number of publications, best practice guidelines, and other online resources developed and released on ICT policy and regulation as well as on economics and finance number of website views/downloads of regulatory and policy data and publications · Number of participants in Global Symposium for Regulators, and in strategic dialogues and forums on topical regulatory, economic and policy issues · Number of participants in the regional enabling environments awareness activities · Number of participants in the regional enabling environment awareness activities
2023 · Awareness raised on policy, legal and regulatory frameworks conducive to development of telecommunications/ICTs through enhanced availability for Membership of high-quality regulatory, economics and finance data, research and analysis for evidence-based decision making · Enhanced knowledge exchange through successful implementation of regional and global forums and strategic Dialogues including Global Symposium for Regulators · Improved availability and online access of high quality data, research and analysis on telecommunications/ICT policy, regulatory and economic issues, including through the adoption of GSR Best Practice Guidelines · The publication of the updated ICT Regulatory Tracker, and the availability of at least 10 publications, studies and papers	· Timely release of the annual questionnaires to Members States (Regulatory, Economics and Finance) · Completed data on the PREF knowledge center (Policy, Regulation, Economics & Finance), including the ICT Regulatory Tracker · Number of publications, best practice guidelines, and other online resources developed and released on ICT policy and regulation as well as on economics and finance · Number of website views/downloads of regulatory and policy data and publications · Number of participants in Global Symposium for Regulators, and in strategic dialogues and forums on topical regulatory, economic and policy issues

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Human resources	· Insufficient human resources to cope with demand. Lack of qualified experts in the domains concerned	Medium	Medium	· Resource requirements anticipated, and continuous updating of expert data base, including through recruitment of and collaboration with experts in study groups, and · Recruitment procedures initiated as soon as possible
2. Finance	· Lack of resources to provide the appropriate support level in case of high demand for significant knowledge exchange mechanisms or forums requested by membership	Medium	Medium	· Appropriate budget forecast prepared · Mobilize additional resources, if necessary · Appropriate host country agreement negotiated
3. Stakeholders/ Partners	· Insufficient commitment of countries and partners	Medium	Medium	· Cooperation with countries and partners leveraged to ensure appropriate level of involvement
4. Security	· Security situation in the regions	Medium	High	· Working with same countries

Output 3.2   Products and services on telecommunication/ICT statistics and data analysis, such as research reports, collection, harmonization and dissemination of high-quality, internationally comparable statistical data, and forums of discussion

Description

With the growing recognition of ICTs as a driver for sustainable development, and as more and more people join the global information society and high-speed communication networks become an indispensable infrastructure, the tracking and measurement of developments in telecommunications/ICTs remain as relevant as ever. ITU is recognized all over the world as the main source of internationally comparable data and statistics on telecommunications/ICTs. The statistical standards, definitions and methodologies developed by ITU are widely used by countries in their production of telecommunication/ICT statistics. Reliable, comprehensive and comparable statistics are indispensable to identify progress and gaps, track information-society developments at the national and global levels and support government and industry in making informed and strategic decisions to ensure equal access, use and impact of telecommunications/ICTs. They are indispensable for monitoring progress towards achievement of global development goals, such as the SDGs, the WSIS Action Lines, and the ITU Strategic Goals included in the Connect 2020 Agenda.

While the availability of comparable telecommunication/ICT statistics has considerably improved in recent years, major data gaps remain, in particular in developing countries, and in covering important areas such as measuring broadband speed and quality, international Internet bandwidth, investment and revenue in the ICT sector, household access to ICTs, individuals' use of ICTs, or gender equality in access and use of ICTs and access to ICTs by young and old people and by persons with disabilities. Countries are therefore encouraged to produce high quality data based on internationally agreed standards, definitions and methodologies, including in those areas where there remain data gaps and which amongst others illustrate national digital divides as well as the efforts made through various programmes to close the gap, showing, as much as possible, the social and economic impact.

Result-based analysis

Outcome	Outcome indicators
· Strengthened capacity of Member States to produce high-quality, internationally comparable telecommunication/ICT statistics which reflect developments and trends in telecommunications/ICTs, based on agreed standards and methodologies	· Timely release of ITU World Telecommunication/ICT Indicators (WTI) Database · Number of data points and indicators available in WTI Database

Annual expected results		Performance indicators (PIs)
2020	· Enhanced availability of high-quality, internationally comparable telecommunication/ICT statistics · Accurate analysis of information society developments · World Telecommunication/ICT Indicators Symposium · Work of the statistical Expert Groups implemented successfully	· Timely release of ITU World Telecommunication/ICT Indicators (WTI) Database · Number of data points and indicators available in WTI Database · Number of downloads, citations, website hits and/or purchases of BDT statistical and research products and online resources · Number of countries trained or advised on telecommunication/ICT statistics by BDT · Number of participants in the ITU World Telecommunication/ICT Indicators Symposium and in statistical expert groups
2021	· Enhanced availability of high-quality, internationally comparable telecommunication/ICT statistics · Accurate analysis of information society developments · World Telecommunication/ICT Indicators Symposium · Work of the statistical Expert Groups implemented successfully	· Timely release of ITU World Telecommunication/ICT Indicators (WTI) Database · Number of data points and indicators available in WTI Database · Number of downloads, citations, website hits and/or purchases of BDT statistical and research products and online resources · Number of countries trained or advised on telecommunication/ICT statistics by BDT · Number of participants in the ITU World Telecommunication/ICT Indicators Symposium and in statistical expert groups

Annual expected results	Performance indicators (PIs)
2022 · Enhanced availability of high-quality, internationally comparable telecommunication/ICT statistics · Accurate analysis of information society developments · World Telecommunication/ICT Indicators Symposium · Work of the statistical Expert Groups implemented successfully	· Timely release of ITU World Telecommunication/ICT Indicators (WTI) Database · Number of data points and indicators available in WTI Database · Number of downloads, citations, website hits and/or purchases of BDT statistical and research products and online resources · Number of countries trained or advised on telecommunication/ICT statistics by BDT · Number of participants in the ITU World Telecommunication/ICT Indicators Symposium and in statistical expert groups
2023 · Enhanced availability of high-quality, internationally comparable telecommunication/ICT statistics · Accurate analysis of information society developments · World Telecommunication/ICT Indicators Symposium · Work of the statistical Expert Groups implemented successfully	· Timely release of ITU World Telecommunication/ICT Indicators (WTI) Database · Number of data points and indicators available in WTI Database · Number of downloads, citations, website hits and/or purchases of BDT statistical and research products and online resources · Number of countries trained or advised on telecommunication/ICT statistics by BDT · Number of participants in the ITU World Telecommunication/ICT Indicators Symposium and in statistical expert groups

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Finance	• Lack of resources to provide the appropriate support level in case of high demand from countries	Medium	Medium	• Appropriate budget forecast prepared • Mobilize additional resources, if necessary • Appropriate host country agreement negotiated
2. Human resources	• Insufficient human resources to cope with demand. Lack of qualified experts in the domains concerned	High	High	• Resource requirements anticipated and recruitment procedures initiated as soon as possible
3. Stake-holders/ Partners	• Insufficient commitment of countries and partners	High		• Cooperation with countries and partners ensured to guarantee appropriate level of involvement
4. Security	• Security situation in the regions	Medium	High	• Working with same countries

Output 3.3 Products and services on capacity building and human skills development, including those on international Internet governance, such as online platforms, distance and face-to-face training programmes to enhance practical skills, and shared material, taking into account partnerships with telecommunication/ICT education stakeholders

Description

Capacity building continues to be a cross-cutting issue that informs and augments the ITU-D's overall mission. ICT-based education and training aimed at enhancing human potential to leverage ICTs and improve individual livelihoods is particularly fundamental for developing countries. This will help them to improve skills and enable them to establish and develop their national digital strategies for sustainable development. Therefore, research undertakings and development of specialized training programmes in priority areas for the membership are required.

Furthermore, telecommunications/ICTs need to be incorporated into education and human resources development for all groups is needed. This requires cooperation and partnerships between countries and broad stakeholders' participation. The partnerships should bring together, among others, academia, experienced professionals and experts as well as organizations and other stakeholders with relevant expertise in human skills development and digital literacy activities.

Result-based analysis

Outcome	Outcome indicators
· Improved human and institutional capacity of ITU Membership to tap into the full potential of telecommunications/ICTs	· Number and level of individuals trained · Number of participants who pass the training assessment · Number of participants who are satisfied with the training · Number of high-level training programmes developped · Number of trainings carried out that relate to regional initiatives

Annual expected results		Performance indicators (PIs)
2020	· Training courses effectively delivered through the ITU Centers of Excellence network · Awareness on the role of capacity building and skills development increased in ITU membership · Successful holding of global and regional capacity building events · ITU Academy platform successfully implemented	· Number of training courses delivered through the CoE network · Number of participants in training courses · Number of global and regional capacity building events organized · Number of countries and participants that attended global and regional events · Number of users of ITU Academy
2021	· Training courses effectively delivered through the ITU Centers of Excellence network · Awareness on the role of capacity building and skills development increased in ITU membership · Successful holding of global and regional capacity building events · ITU Academy platform successfully implemented	· Number of training courses delivered through the CoE network · Number of participants in training courses · Number of global and regional capacity building events organized · Number of countries and participants that attended global and regional events · Number of users of ITU Academy
2022	· Training courses effectively delivered through the ITU Centers of Excellence network · Awareness on the role of capacity building and skills development increased in ITU membership · Successful holding of global and regional capacity building events · ITU Academy platform successfully implemented	· Number of training courses delivered through the CoE network · Number of participants in training courses · Number of global and regional capacity building events organized · Number of countries and participants that attended global and regional events · Number of users of ITU Academy
2023	· Training courses effectively delivered through the ITU Centers of Excellence network · Awareness on the role of capacity building and skills development increased in ITU membership · Successful holding of global and regional capacity building events · ITU Academy platform successfully implemented	· Number of training courses delivered through the CoE network · Number of participants in training courses · Number of global and regional capacity building events organized · Number of countries and participants that attended global and regional events · Number of users of ITU Academy

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Stakeholders/ Partners	· Low level of partnerships in capacity building · Low level of participation by partners in capacity-building activities · Low partner resource allocation	High	Medium	· Stakeholder involvement in capacity building programme design · Increased partner value proposition in capacity-building programmes
2. Finance	· Inadequate budget for desired actions	Medium	Low	· Actions consolidated and focus on those with the highest impact · Mobilization of extra-budgetary funding from projects and partnership contributions
3. Human resources	· Inadequate staff against expected deliverables	High	High	· Focus on strategic outputs with high impact
4. Environment	· Delays in country activities due to unforeseen local events	Medium	Medium	· Enhancement of a responsive implementation mechanism and improved communication with partners
5. Security	· Security situation in the regions	Medium	High	· Working with same countries

Output 3.4   Products and services on telecommunication/ICT innovation, such as knowledge sharing and assistance, upon request, on developing a national innovation agenda; mechanisms for partnerships; development of projects, studies and telecommunication/ICT innovation policies

Description

Innovation has been recognized as a powerful engine for development to address social and economic challenges and navigate global challenges for policy makers and citizens alike. Innovation is also essential to accelerating digital transformation and fosters the sustainable growth for the digital economy.

To help countries navigate the fast changing telecommunication environment and accelerate digital transformation that fosters sustainable growth of the digital economy, ITU will offer an innovation platform for membership. The ITU Innovation platform will provide assistance in the form of products, services to support membership to actively shape vibrant ICT innovation ecosystems. Over ten products and services have already been developed and are available from ITU membership.

The innovation program aims to help membership accelerate digital transformation towards their digital economy through access to several products and services:

- **Innovation Dialogues** and **Innovation Challenges** to help membership **clarify and be informed** about challenges and opportunities in their innovation environment.

- **Innovation Toolkits**, **Regional Innovation Forums** and **Innovation Workshops** to **empower** stakeholders and equip them with required skills to transform their innovation ecosystem.

- **Country reviews**, **Ecosystem Reviews** and **Digital Innovation Profiles**, to help assess and recommend contextual strategies, policies and programs needed to develop their digital innovation ecosystems.

- **Project advisory**, **Good Practices**, and **Strategic Alliances** to co-create and implement bankable flagship projects with stakeholders.

- **Digital Innovation Policy Monitor** (upcoming in 2019) to help countries maintain sustainable and competitive innovation capabilities.

The main benefits of this platform will foster innovation capabilities and digital entrepreneurship, which accelerate public service transformation, development of small and medium firms in various sectors, and create positive externalities (jobs, growth, and competitiveness) in the economy. To achieve impact, several actions will be undertaken to ensure sustainability, scalability, advocacy, and successful outcome through development of competitive innovation ecosystem and multistakeholder & multisector approaches as well as partnerships.

Result-based analysis

Outcome	Outcome indicators
· Strengthened capacity of the ITU membership to integrate telecommunication/ICT innovation in national development agendas and to develop strategies to promote innovation initiatives, including through public, private, and public-private partnerships	· Number of initiatives (e.g. with guidelines and recommendations, DIY toolkits, etc.) and grassroots projects strengthening the innovations ecosystems for member states · Number of new partnerships with key stakeholders that foster innovation ecosystems · Number of partnerships, initiatives and projects translated into action for membership

Annual expected results	Performance indicators (PIs)
2020 · Number of toolkits/scalable frameworks fostering ICT centric innovation · Number of countries and organizations with certified experts on ICT centric innovation · Number of customized assessments on ICT centric innovation · Number of advocacy initiatives raising awareness on the digital innovation divide · Number of projects undertaken or implemented on innovation	· Number of initiatives and grassroots projects strengthening the innovations ecosystems for member states (number of: toolkits/scalable frameworks , countries and organizations with certified experts on ICT centric innovation, customized assessments, advocacy initiatives raising awareness, and project developed) · Number of new partnerships that foster innovation ecosystems key stakeholders · Number of partnership, initiative and projects translated into action for membership · At least 25% increase from the previous year's indicators
2021 · Number of toolkits/scalable frameworks fostering ICT centric innovation · Number of countries and organizations with certified experts on ICT centric innovation · Number of customized assessments on ICT centric innovation · Number of advocacy initiatives raising awareness on the digital innovation divide · Number of projects undertaken or implemented on innovation	· Number of initiatives and grassroots projects strengthening the innovations ecosystems for member states (number of toolkits/scalable frameworks, countries and organizations with certified experts on ICT centric innovation, customized assessments , advocacy initiatives raising awareness, and project developed) · Number of new partnerships that foster innovation ecosystems key stakeholders · Number of partnership, initiative and projects translated into action for membership · At least 25% increase from the previous year's indicators

Annual expected results	Performance indicators (PIs)
2022 · Number of toolkits/scalable frameworks fostering ICT centric innovation · Number of countries and organizations with certified experts on ICT centric innovation · Number of customized assessments on ICT centric innovation · Number of advocacy initiatives raising awareness on the digital innovation divide · Number of projects undertaken or implemented on innovation	· Number of initiatives and grassroots projects strengthening the innovations ecosystems for member states (number of: toolkits/scalable frameworks , countries and organizations with certified experts on ICT centric innovation, customized assessments, advocacy initiatives raising awareness, and project developed) · Number of new partnerships that foster innovation ecosystems key stakeholders · Number of partnership, initiative and projects translated into action for membership · At least 25% increase from the previous year's indicators
2023 · Number of toolkits/scalable frameworks fostering ICT centric innovation · Number of countries and organizations with certified experts on ICT centric innovation · Number of customized assessments on ICT centric innovation · Number of advocacy initiatives raising awareness on the digital innovation divide · Number of projects undertaken or implemented on innovation	· Number of initiatives and grassroots projects strengthening the innovations ecosystems for member states (number of: toolkits/scalable frameworks , countries and organizations with certified experts on ICT centric innovation, customized assessments , advocacy initiatives raising awareness, and project developed) · Number of new partnerships that foster innovation ecosystems key stakeholders · Number of partnership, initiative and projects translated into action for membership · At least 25% increase from the previous year's indicators

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Stakeholders	· Lack of engagement of stakeholders at local level for implementation	Medium	Low	· Consultation with stakeholders to achieve outcome
2. Experts	· Lack of participation certified expert to engage in ecosystem analysis	Medium	Medium	· Target group with dedicated focus · Recruit from regional expert group · Address incentives for participation and country relevance
3. Resources	· Inadequate resource availability	Medium	High	· Establish selection and priorities based on feasibility and resource accessibility criteria
4. Environment	· Delays in country activities due to unforeseen local events	Medium	Medium	· Enhancement of a responsive implementation mechanism and improved communication with partners

OBJECTIVE 4

Inclusive information society: Foster the development and use of telecommunications/ICTs and applications to empower people and societies for sustainable development

Summary

The purpose of Objective 4 is to ensure that all people, including the world's most vulnerable countries and population groups, can benefit from the opportunities of ICTs for sustainable development; to make ICTs affordable and accessible, and to identify and use telecommunication/ICT products and services that promote social inclusion, economic development and environmental sustainability.

Objective 4 includes the following outputs:

- Products and services on concentrated assistance to LDCs, SIDS and LLDCs and countries with economies in transition, to foster availability and affordability of telecommunications/ICTs.

- Products and services on telecommunication/ICT policies supporting the development of the digital economy, ICT applications and new technologies, such as information sharing and support for their deployment, assessment studies, and toolkits.

- Products and services on digital inclusion for girls and women and people with specific needs (elderly, youth, children and indigenous people, among others), such as awareness-raising on digital inclusion strategies, policies and practices, development of digital skills, toolkits and guidelines and forums of discussion to share practices and strategies.

- Products and services on ICT climate-change adaptation and mitigation, such as promotion of strategies and dissemination of best practices on mapping vulnerable areas and developing information systems, metrics, and e-waste management.

For the years 2020 to 2023, the estimated human resources to be allocated to Objective 4 represent **19.9 %** of the total human resources of the Telecommunication Development Bureau.

Chart 4 provides the breakdown of the human resources allocated to Objective 4 by department.

Chart 4
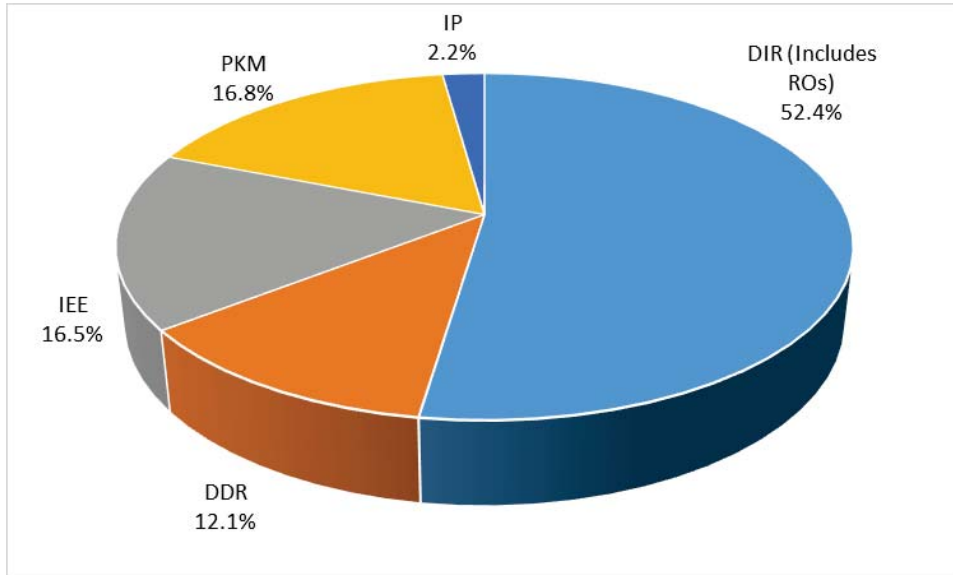
Output 4.1   Products and services on concentrated assistance to LDCs, SIDS and LLDCs and countries with economies in transition, to foster availability and affordability of telecommunications/ICTs

Description

ICTs help the least developed countries (LDCs), landlocked developed countries (LLDCs), and small island developing states (SIDS), to address their specific development challenges. LDCs, LLDCs, and SIDS face a number of connectivity barriers: many LDCs have large land areas and rural populations, and are sparsely populated, which makes the roll-out of terrestrial communication infrastructure more difficult. LLDCs lack direct access to the sea and many SIDS have numerous islands and often face high communication costs.

ITU has mainstreamed the needs of the world's most vulnerable countries in all its activities and programmes and develops tailored programmes of assistance in such areas as technology and network development, regulation, capacity building, and emergency telecommunications. It also provides concentrated assistance and helps LDCs, LLDCs and SIDS to fully participate in the information and knowledge society.

ITU assistance to the LDCs goes back to 1971, when the Union accorded special assistance to LDCs through the implementation of relevant plenipotentiary conference resolutions. In 2002, direct assistance to LDCs was delivered for the first time to a small group of countries on a biennial basis. This assistance facilitated through Output 4.1 will deliver targeted and highly differentiated assistance to countries with specific needs, including LDCs, SIDS, LLDCs and countries with economies in transition, in a number of priority areas.

Result-based analysis

Outcome	Outcome indicators
· Improved access to and use of telecommunication/ICT in Least Developed Countries (LDCs), small island developing states (SIDS) and landlocked developing countries (LLDCs) and countries with economies in transition	· Number of countries receiving concentrated assistance following BDT actions, with improved telecommunication/ICT connectivity, availability and affordability · Number of countries receiving assistance following BDT actions, including number of fellowships requested and number of fellowships awarded

Annual expected results		Performance indicators (PIs)
2020	· At least 15% of LDCs, SIDS, LLDCs and countries with economies in transition received concentrated assistance for improved access to and use of ICTs · At least 80% of LDCs received fellowships to attend ITU meetings	· Number of Member States that received concentrated assistance on their priority needs · Number of Member States that received fellowships to attend ITU meetings
2021	· At least 15% of LDCs, SIDS, LLDCs and countries with economies in transition received concentrated assistance for improved access to and use of ICTs · At least 80% of LDCs received fellowships to attend ITU meetings	· Number of Member States that received concentrated assistance on their priority needs · Number of Member States that received fellowships to attend ITU meetings
2022	· At least 15% of LDCs, SIDS, LLDCs and countries with economies in transition received concentrated assistance for improved access to and use of ICTs · At least 80% of LDCs received fellowships to attend ITU meetings	· Number of Member States that received concentrated assistance on their priority needs · Number of Member States that received fellowships to attend ITU meetings
2023	· At least 15% of LDCs, SIDS, LLDCs and countries with economies in transition received concentrated assistance for improved access to and use of ICTs · At least 80% of LDCs received fellowships to attend ITU meetings	· Number of Member States that received concentrated assistance on their priority needs · Number of Member States that received fellowships to attend ITU meetings

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Finance	• Lack of financial resources to provide appropriate support to Member States	High	Medium	• Appropriate budget allocation and search for possible resource mobilization and partnerships
2. Stakeholders/ partners	• Lack of support and cooperation from partners	Medium	Medium	• Develop close cooperation with other organizations and work with regional offices and Member States to provide necessary support
3. Human resources	• Lack of expertise of staff	High	Medium	• Support staff training and participation in events and discussions

Output 4.2 Products and services on telecommunication/ICT policies supporting the development of the digital economy, ICT applications and new technologies, such as information sharing and support for their deployment, assessment studies and toolkits

Description

Telecommunication/ICT and particularly mobile technology hold the most transformative power of our time. It has the capacity to connect even the most isolated communities to sources of information and services that can have direct impact on their livelihoods and quality of life. Services delivered via telecommunication/ICT networks, phones and Internet are critical to generating social impact in different life aspects.

Despite the rapid expansion of telecommunication and mobile technologies, many people around the world still remain away from the reach of the digital revolution. Many of the digital innovations have not yet achieved economically sustainable scale and are accessible only to a fragment of those who need them most.

In light of the continued relevance of the WSIS Action lines, as well as the adoption of the new Sustainable Development Goals, mainstreaming digital innovations in all sectors is unavoidable if we are to achieve those goals by 2030. All people should have affordable access through smart devices to key information and life-enhancing services critical for sustainable development. This would require much more than just infrastructure – extending access must be accompanied by the availability of relevant telecommunication/ICT applications and services to extend access to, in particular, digital education, healthcare, agriculture, energy and financial and commercial services.

Result-based analysis

Outcome	Outcome indicators
· Improved capacity of the ITU membership to accelerate economic and social development by leveraging and using new technologies and telecommunication/ICT services and applications	· Number of toolkits published and downloaded for the development of national sectoral digital strategies · Number of telecommunications/ICT for development best-practices reports published · Number of telecommunications/ICT for development events/workshops/seminars assisting developing countries with the challenges that their people and societies must overcome, and respective number of participants

Annual expected results		Performance indicators (PIs)
2020	· Formulate and implement projects on new technologies for Development with interested stakeholders · Assist countries on policies to create enabling environments for new technologies · Organize Forums and Workshops on emerging new technologies · Develop key studies on the IoT and smart cities, including big data	· Number of projects implemented · Number of countries assisted in creating enabling environments · Number of Forums and Workshops organized · Number of studies developed
2021	· Formulate and implement projects on new technologies for Development with interested stakeholders · Assist countries on policies to create enabling environments for new technologies · Organize forums and workshops on emerging new technologies · Develop key studies on the IoT and smart cities, including big data	· Number of Projects implemented · Number of countries assisted in creating enabling environments · Number of Forums and Workshops organized · Number of studies developed ·
2022	· Formulate and implement projects on new technologies for Development with interested stakeholders · Assist countries on policies to create enabling environments for new technologies · Organize forums and workshops on emerging new technologies for Development · Develop key studies on the IoT and smart cities, including big data	· Number of Projects implemented · Number of countries assisted in creating enabling environments · Number of Forums and Workshops organized · Number of studies developed
2023	· Formulate and implement projects on new technologies for Development with interested stakeholders · Assist countries on policies to create enabling environments for new technologies · Organize forums and workshops on emerging new technologies for Development · Develop key studies on the IoT and smart cities, including big data	· Number of Projects implemented · Number of countries assisted in creating enabling environments · Number of Forums and Workshops organized · Number of studies developed

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Security and stability	· Security situation in some countries may affect the level of activities in that country and the region at large	High	Medium	· Work to engage multiple countries and stakeholders in each activity

Output 4.3   Products and services on digital inclusion for girls and women and people with specific needs (elderly, youth, children and indigenous people, among others), such as awareness-raising on digital inclusion strategies, policies and practices, development of digital skills, toolkits and guidelines and forums of discussion to share practices and strategies

Description

Digital inclusion means ensuring the accessibility of telecommunications/ICTs and the use of telecommunications/ICTs for social and economic development, especially for people with specific needs (persons with disabilities and elderly, women and girls, children and youth, Indigenous people). Despite the increasing deployment of telecommunication/ICT networks, equipment, services and applications, many people remain excluded from the information society. In particular, there is a gender digital divide. Fewer women and girls have access to and use telecommunications/ICT than men and boys, and even fewer women and girls are ICT creators and leaders. Furthermore telecommunications/ICTs are not exploited to promote economic and social development of women and girls, persons with disabilities, including age-related disabilities, youth, children and Indigenous Peoples, who have specific needs that must be addressed to enable them to use and leverage telecommunications/ICTs.

Result-based analysis

Outcome	Outcome indicators
· Strengthened capacity of the ITU membership to develop strategies, policies and practices for digital inclusion, in particular for the empowerment of women and girls, persons with disabilities and other persons with specific needs	· Number of digital inclusion resources developed and/or made available to members, including publications, policies, strategies, guidelines, good practices, case studies, training materials, online resources and toolkits, and number of website views of ITU-D digital inclusion websites
	· Number of members aware of, trained in or advised on digital inclusion policies, strategies and guidelines

Annual expected results	Performance indicators (PIs)
2020 · Digital inclusion resources developed and/or made available to members. · Members aware of, trained or advised on digital inclusion policies, strategies, guidelines and resources	· Number of digital inclusion resources developed and/or made available to members to support them in the implementation process in their countries and regions · Number of members aware of, trained or advised on digital inclusion policies, strategies, guidelines and resources made available to support them in the implementation process of building inclusive digital societies in their countries and regions
2021 · Digital inclusion resources developed and/or made available to members · Members aware of, trained or advised on digital inclusion policies, strategies, guidelines and resources	· Number of digital inclusion resources developed and/or made available to members to support them in the implementation process in their countries and regions · Number of members aware of, trained or advised on digital inclusion policies, strategies, guidelines and resources made available to support them in the implementation process of building inclusive digital societies in their countries and regions
2022 · Digital inclusion resources developed and/or made available to members · Members aware of trained or advised on digital inclusion policies, strategies, guidelines and resources	· Number of digital inclusion resources developed and/or made available to members to support them in the implementation process in their countries and regions · Number of members aware of, trained or advised on digital inclusion policies, strategies, guidelines and resources made available to support them in the implementation process of building inclusive digital societies in their countries and regions
2023 · Digital inclusion resources developed and/or made available to members. · Members aware of trained or advised on digital inclusion policies, strategies, guidelines and resources	· Number of digital inclusion resources developed and/or made available to members to support them in the implementation process in their countries and regions · Number of members aware of, trained or advised on digital inclusion policies, strategies, guidelines and resources made available to support them in the implementation process of building inclusive digital societies in their countries and regions

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Human resources	· Insufficient human resources/staff to meet all expected outcomes and outputs	High	High	· Foresee adequate budget for required human resources/staff · Focus on strategic outputs with high impact
2. Finance	· Inadequate budget to meet expected outcomes and outputs	Medium	Medium	· Focus on strategic outputs with high impact
3. Stakeholders/ partners	· Competing priorities among partners and stakeholders	Medium	Medium	· Incentivize partners and stakeholders including by developing initiatives and campaigns with other UN agencies which are attractive to partners and stakeholders
4. Security and stability	· Security situation in some countries may affect the level of activities in that country and the region at large	High	Medium	· Work to engage multiple countries and stakeholders in each activity

Output 4.4 Products and services on ICT climate-change adaptation and mitigation, such as promotion of strategies and dissemination of best practices on mapping vulnerable areas and developing information systems, metrics, and e-waste management

Description

The process established by the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC) and the ongoing related negotiations are important international actions aimed at addressing the threat of climate change, mitigating its adverse impacts and assisting all ITU Member States. Climate change impacts climate/weather related events and impacts water resources, land use and marine ecosystems, affecting the economies of all ITU Member States. The critical importance of using telecommunications/ICTs to mitigate climate change and adapt to its adverse impact is widely recognized, including through the ITU Resolution 34 (Rev. Buenos Aires, 2017) on the role of telecommunications/ICTs in disaster preparedness, early warning, rescue, mitigation, relief and response and Resolution 182 (Rev. Busan, 2014) of the Plenipotentiary conference on the role of telecommunications/information and communication technologies in regard to climate change and the protection of the environment.

Result-based analysis

Outcome	Outcome indicators
· Enhanced capacity of the ITU Membership to develop telecommunication/ICT strategies and solutions on climate-change adaptation and mitigation and the use of green/renewable energy	· Number of Member States assisted by BDT for increasing awareness of the impact of climate change and promoting the use of telecommunication/ICTs to mitigate its negative effects · Number of Member States assisted by BDT in developing their climate change strategies, policy and legislative frameworks · Number of Member States assisted by BDT in developing e-waste strategy, policy and regulatory frameworks

Annual expected results		Performance indicators (PIs)
2020	· 20% of all Member States with improved availability of information and solutions for Member States on climate changes adaptation and mitigation · At least 2 Member States that were assisted by BDT in developing an e-waste strategy, policy or monitoring framework	· Number of Member States assisted by BDT for increasing awareness of the impact of climate change and promoting the use of telecommunication/ICTs to mitigate its negative effects. · Number of Member States assisted by BDT in developing an e-waste strategy, policy, regulations and monitoring frameworks · Number of countries and participants that attended e-waste statistics awareness events
2021	· 20% of all Member States with improved availability of information and solutions for Member States on climate changes adaptation and mitigation · At least 2 Member States that were assisted by BDT in developing an e-waste strategy, policy or monitoring framework	· Number of Member States assisted by BDT for increasing awareness of the impact of climate change and promoting the use of telecommunication/ICTs to mitigate its negative effects. · Number of Member States assisted by BDT in developing an e-waste strategy, policy, regulations and monitoring frameworks
2022	· 20% of all Member States with improved availability of information and solutions for Member States on climate changes adaptation and mitigation · At least 2 Member States that were assisted by BDT in developing an e-waste strategy, policy or monitoring framework	· Number of Member States assisted by BDT for increasing awareness of the impact of climate change and promoting the use of telecommunication/ICTs to mitigate its negative effects. · Number of Member States assisted by BDT in developing an e-waste strategy, policy, regulations and monitoring frameworks
2023	· 20% of all Member States with improved availability of information and solutions for Member States on climate changes adaptation and mitigation · At least 2 Member States that were assisted by BDT in developing an e-waste strategy, policy or monitoring framework	· Number of Member States assisted by BDT for increasing awareness of the impact of climate change and promoting the use of telecommunication/ICTs to mitigate its negative effects · Number of Member States assisted by BDT in developing an e-waste strategy, policy, regulations and monitoring frameworks

Risk analysis

Perspective	Key Risk Indicator (KRI)	Impact	Likelihood	Mitigation
1. Finance	· Lack of financial resources to provide appropriate support to Member States	High	Medium	· Appropriate budget allocation and search for possible resource mobilization and partnerships
2. Stakeholders/ partners	· Lack of support and cooperation from partners	Medium	Medium	· Develop close cooperation with other organizations, stakeholders and work with regional offices and Member States to provide necessary support
3. Human resources	· Lack of expertise of staff	High	Medium	· Support staff training and participation in events and discussions

PART 3

THE TELECOMMUNICATION DEVELOPMENT BUREAU

Part 3 presents the Telecommunication Development Bureau as well as the different departments and divisions that are part of it.

Summary

The mission of the BDT includes the organization and support of the outputs related to the four objectives of the Telecommunication Development Sector. These outputs consist of actions and activities that represent an important component when it comes to the financial and planning processes.

Telecommunication Development Bureau

The Telecommunication Development Bureau is responsible for assisting countries in the field of information and communication technologies (ICTs), facilitating the mobilization of technical, human and financial resources needed for their implementation, as well as promoting access to ICTs. The Telecommunication Development Bureau also promotes the extension of the benefits of ICTs to the entire world's inhabitants, participates in actions that contribute towards narrowing the digital divide, develops and manages programmes that facilitate information flow geared to the needs of developing countries.

The Bureau is organized into four Departments in addition to the Regional Offices. The chart below illustrates the structure of the BDT.
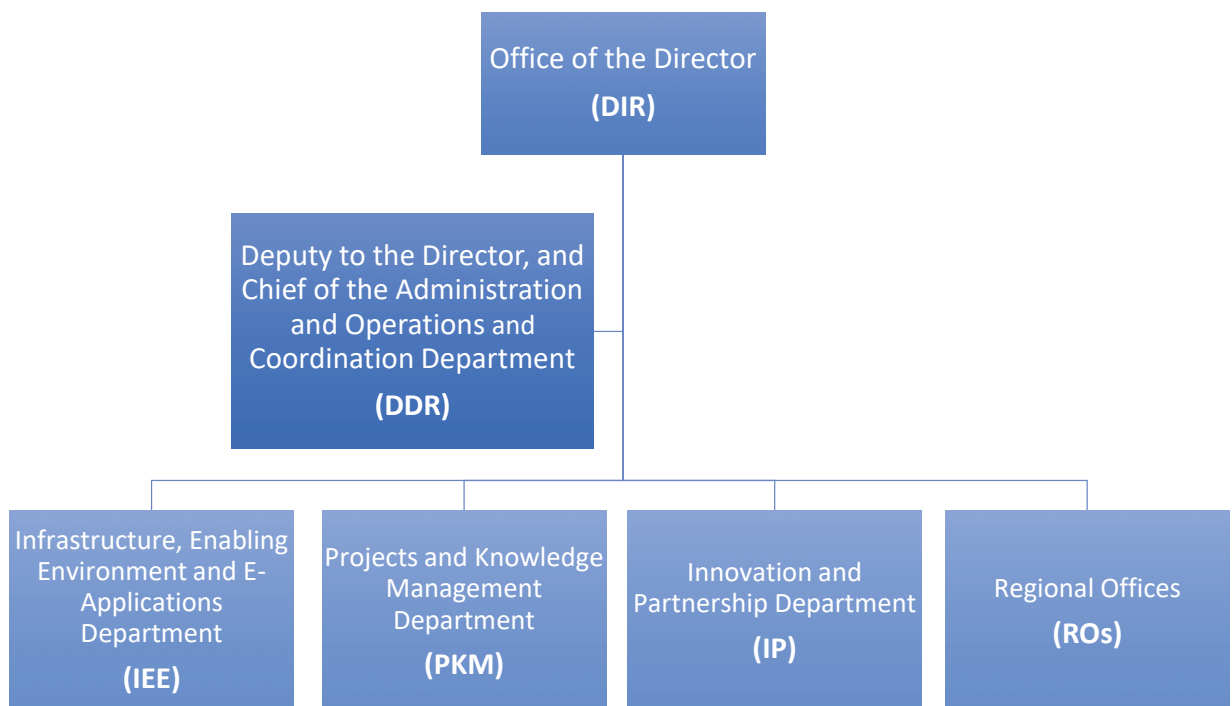
Key activities

The key activities of the Telecommunication Development Bureau are linked to the following:

- Assistance to least developed countries, landlocked developing countries and small island developing states
- Broadband deployment in rural areas
- Capacity building
- Climate change adaptation and mitigation and e-waste management
- Conformance and interoperability capacity building
- Cyber security: building confidence and security in the use of ICTs
- Digital inclusion
- Emergency telecommunications
- Global symposium for regulators
- Indicators and statistics
- M-health applications to combat non-communicable diseases

- Partnership building and resource mobilization
- Innovation
- Policy and regulatory for a
- Studies, Reports and Guidelines of regulatory and policy issues
- Project implementation
- Spectrum management system for developing countries
- Study group activities and knowledge sharing
- Transition from analogue to digital broadcasting
- Transition to new generation networks

Deputy to the Director and Chief of the Administration and Operations Coordination Department (DDR)

The Deputy to the Director and Chief of the Administration and Operations Coordination Department (DDR) is responsible for assisting and advising the Director in the direction and management of the Bureau including on all questions related to personnel, finance and operational planning process. The Department is responsible for leading the operational planning, assessment and reporting process within the framework of the Action Plan as adopted by the World Telecommunication Development Conference in coordination with the Heads of the other Departments in the Bureau and Regional Directors. The Department is responsible for management of the Administration Division (ADM), the Support Division (SUP), the IT Support Service and the Field Operations Support Service. The Department is also responsible for coordinating conferences and events preparation and for monitoring the implementation of decisions emanating from ITU and BDT governing bodies including Council, Conferences and Assemblies of the other Sectors for matters of relevance to BDT as well as from the Telecommunication Development Advisory Group. The Department is responsible for coordination of the Bureau's cooperation with other Sectors and General Secretariat.

Table 1 below shows the breakdown of the planned human resources (Work Months) by grade in the Deputy to the Director and Chief of the Administration and Operations Coordination Department (DDR) for the period 2020-2023.

Table 1 – Planned Human Resources for DDR by Work/Months

Grade	2020	2021	2022	2023
D2	12	12	12	12
P5	24	24	24	24
P4	12	12	12	12
P3	36	36	36	36
P2	72	72	72	72
G6	84	84	84	84

Infrastructure, Enabling Environment and E-Applications Department (IEE)

The Infrastructure, Enabling Environment and E-Applications Department (IEE) is responsible for assisting ITU Member States and ITU-D Sector Members with the utilization of appropriate technologies to build or extend their telecommunication infrastructure and adapt to the rapidly changing telecommunication/ICT environment. This includes the provision of guidelines and tools for the development of policy and regulatory frameworks, financing policies and strategies, development of telecommunication networks, the use of reliable and cost-effective ICT applications, cybersecurity, broadcasting and spectrum management. The Department is also responsible for promoting access to, as well as use and knowledge of, telecommunications and ICTs for groups, which have been marginalized in their access to current mainstream information communications technology services, including women and girls, children and youth, indigenous people, persons with disabilities and people living in remote communities. The Department is also responsible for making contribution to and following-up the work of ITU-D Study Groups for issues related to the responsibilities of the Department.

Table 2 below shows the breakdown of the planned human resources (Work Months) by grade in the Infrastructure, Enabling Environment and E-Applications Department (IEE) for the period 2020-2023.

Table 2 – Planned Human Resources for IEE by Work/Months

Grade	2020	2021	2022	2023
D1	12	12	12	12
P5	48	48	48	48
P4	96	96	96	96
P3	12	12	12	12
P2	24	24	24	24
G6	12	12	12	12
G5	36	36	36	36

Projects and Knowledge Management Department (PKM)

The Projects and Knowledge Management Department (PKM) is responsible for assisting ITU Member States and ITU-D Sector Members strengthen the institutional and organizational capability to adapt to the rapidly changing telecommunication/ICT environment through capacity building. The Department also provides administrative and technical support in the formulation of project proposals and implementation of projects, project monitoring and evaluation; produces and disseminates timely statistical and analytical data on the Telecommunication/ICT Sector and the Information Society; and supports the work of ITU-D Study Groups. The Department is also responsible for providing concentrated assistance to least developed countries, small island developing states, and landlocked developed countries. In addition, PKM implements activities and projects in the domain of emergency telecommunications, and climate change. The Department is also responsible for making contribution to and following-up the work of ITU-D Study Groups for issues related to the responsibilities of the Department.

Table 3 below shows the breakdown of the planned human resources (Work/Months) by grade in the Projects and Knowledge Management Department (PKM) for the period 2020-2023.

Table 3 – Planned Human Resources for PKM by Work/Months

Grade	2020	2021	2022	2023
D1	12	12	12	12
P5	48	48	48	48
P4	84	84	84	84
P3	60	60	60	60
P2	12	12	12	12
G6	12	12	12	12
G5	60	60	60	60

Innovation and Partnership Department (IP)

The Innovation and Partnership Department (IP) is responsible for the strategic planning and thinking that will properly position the BDT to accomplish the organizational goals and objectives and to achieve the corporate vision; partnership building and resource mobilization, including the management of the ICT-DF and other funds in trust to support the implementation of regional initiatives through bankable projects; and content coordination and strengthening of the synergy between the ITU-D Study Groups, the programmes and the special initiatives.

The table 4 below shows the breakdown by grade of the planned human resources (Work Months) in the Innovation and Partnership Department (IP) for the period 2020-2023.

Table 4 – Planned Human Resources for IP by Work/Months

Grade	2020	2021	2022	2023
D1	12	12	12	12
P4	60	60	60	60
G6	24	24	24	24
G5	24	24	24	24

Regional and Area Offices

The Regional and Area Offices are responsible for proposing the operational policy and strategy of telecommunication development activities in their respective regions, coordinating with countries of the region to prioritize requirements, proposing inputs for the preparation of the operational plan based on these prioritized regional requirements, as well as coordinating and implementing technical cooperation activities in their respective regions, in the framework of projects, regional initiatives, or follow-up of World Telecommunication Development Conferences.

Table 5 below shows the breakdown of the planned human resources (Work Months) by grade in the Regional and Area Offices for the period 2020-2023.

Table 5 – Planned Human Resources for Regional and area offices by Work/Months

Grade	2020	2021	2022	2023
D1	60	60	60	60
P5	144	144	144	144
P4	60	60	60	60
P3	132	132	132	132
P2	24	24	24	24
G6	60	60	60	60
G5	168	168	168	168
G4/G3/G2	48	48	48	48

The tables below show the breakdown by region

Table 6 – Planned Human Resources for AFR by Work/Months

Grade	2020	2021	2022	2023
D1	12	12	12	12
P5	48	48	48	48
P4	12	12	12	12
P3	48	48	48	48
G6	12	12	12	12
G5	48	48	48	48
G4/G2	24	24	24	24

Table 7 – Planned Human Resources for AMS by Work/Months

Grade	2020	2021	2022	2023
D1	12	12	12	12
P5	48	48	48	48
P4	12	12	12	12
P3	36	36	36	36
P2	12	12	12	12
G6	12	12	12	12
G5	48	48	48	48

Table 8 – Planned Human Resources for ARB by Work/Months

Grade	2020	2021	2022	2023
D1	12	12	12	12
P5	12	12	12	12
P4	12	12	12	12
P3	12	12	12	12
P2	12	12	12	12
G6	12	12	12	12
G5	24	24	24	24
G3	12	12	12	12

Table 9 – Planned Human Resources for ASP by Work/Months

Grade	2020	2021	2022	2023
D1	12	12	12	12
P5	24	24	24	24
P4	12	12	12	12
P3	24	24	24	24
G6	12	12	12	12
G5	36	36	36	36
G3	12	12	12	12

Table 10 – Planned Human Resources for CIS by Work/Months

Grade	2020	2021	2022	2023
P5	12	12	12	12
P3	12	12	12	12
G5	12	12	12	12

Table 11 – Planned Human Resources for EUR by Work/Months

Grade	2020	2021	2022	2023
P5	12	12	12	12
P3	12	12	12	12
G5	12	12	12	12

PART 4

THE RESOURCES SUMMARY

This section presents the planned human resources for the period 2020-2023 in the Telecommunication Development Bureau.

Human resources

Table 12 below shows planned human resources (Work Months) for the period 2020-2023.

Table 12 – Planned Human Resources by Work/Months

Grade	2020	2021	2022	2023
E2	12	12	12	12
D2	12	12	12	12
D1	96	96	96	96
P5	264	264	264	264
P4	324	324	324	324
P3	240	240	240	240
P2	144	144	144	144
G7	12	12	12	12
G6	204	204	204	204
G5	324	324	324	324
G4/G3/G2	48	48	48	48

Chart 6 below shows the breakdown of total human resources by grade for the 2020-2023 timeframe
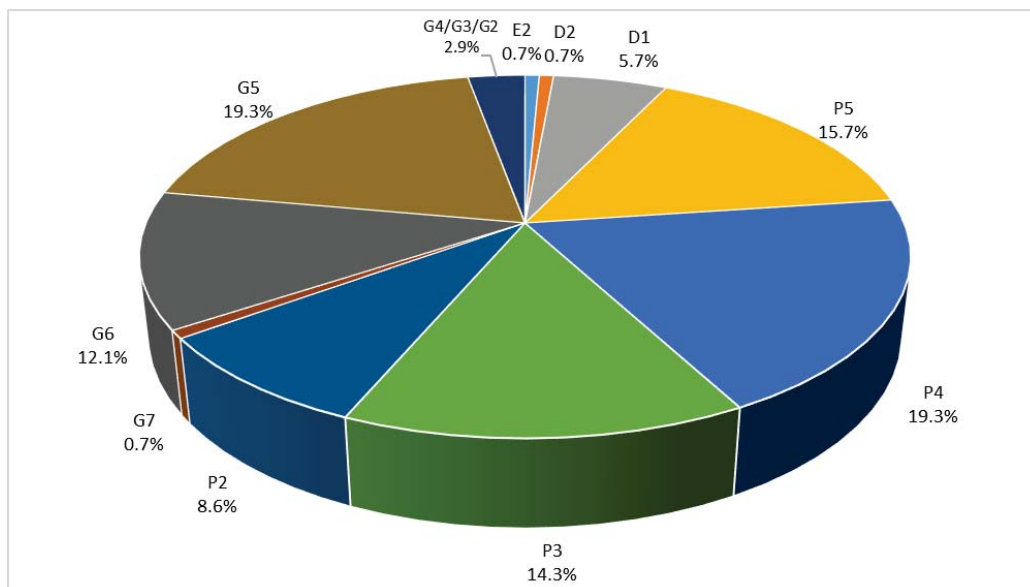
Breakdown of human resources by department for the 2020-2023 timeframe

Table 13 – Planned Human Resources by department by Work/Months

Departments	Work/month
DIR (includes ROs)	3,168
DDR	960
IEE	960
PKM	1,152
IP	480

Chart 7
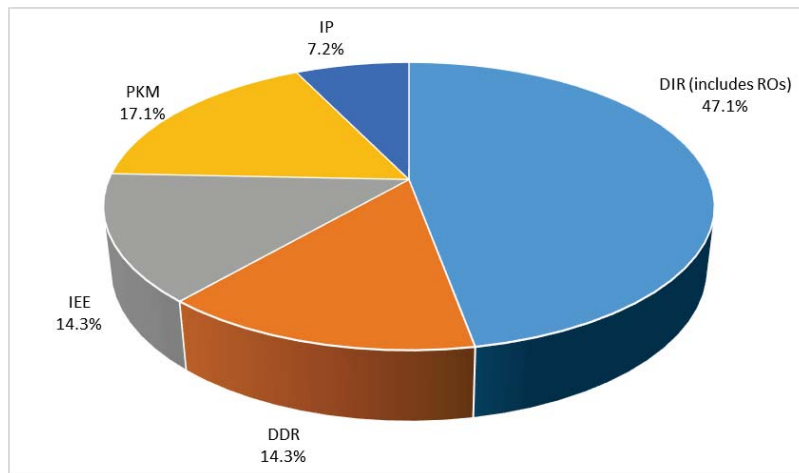
RBM Key Components

All major planning instruments of the ITU, strategic plan, financial plan, budget and now operational plan follow the same result-based structure, thus enabling a clear linkage between all these instruments and dimensions.

The purpose of Result-based management is to shift managerial and administrative emphasis from a process-focused approach to one based on performance and results. The premise is that if we plan in terms of the results we expect to achieve and then verify that we have achieved them, resources will be used effectively and service to membership will be maintained and even improved.

The main and key components of the result-based management are the following:

The vision: The better world ITU wants to see. The aspirational description of what is desired to achieve or accomplish in the mid-term or long-term future. It is intended to serve as a clear guide for choosing current and future courses of action.

The mission: Mission refers to the main overall purposes of the Union, as per the Basic Instruments of ITU.

The strategic goals: Strategic goals refer to the Union's high-level targets to which the objectives contribute, directly or indirectly. These relate to the whole of ITU.

The objectives: Objectives refer to the specific aims of the Sectoral and intersectoral activities in a given period.

The outputs: The outputs are the final tangible results, deliverables, products and services achieved by the Union in the implementation of the operational plans. Outputs are cost objects and are represented in the applicable cost accounting system by internal orders.

**The expected results**: The desired results involving benefits to end-users, expressed as a quantitative or qualitative standard, value or rate. The expected results are the direct consequences or effects of the generation of outputs that leads to the fulfilment of a certain objective.

The key performance indicators: The measures of whether and/or the extent to which the expected accomplishments have been achieved. Also known as KPIs, they define and measure progress toward delivery of expected results. A measure of how well something is being done. Performance indicators are the criteria used to measure the achievement of outputs or outcomes. These indicators may be qualitative or quantitative.

The key risk indicators: An indication of the possibility of future impact. Serve as an "early warning" to identify a potential event that could prevent the achievement of business objectives. Typically forward looking indicators.

The activities: The actions taken to transform inputs into outputs.

The resources: The personnel and other resources necessary for undertaking actions, producing outputs and achieving accomplishments/result.

PART 5

REGIONAL INITIATIVES

AFRICA REGIONAL INITIATIVES

AFR1: Building digital economies and fostering innovation in Africa

Regional Initiative Objective: To build digital economies and foster innovation in Africa. Countries in the Africa region are in need of interventions that would help them transform into digital economies. It is necessary that ITU assist Member States in the Africa region to reap the full benefits of the digital economy by addressing the emerging policy and regulatory challenges. In line with growing digital economies, information and communication technology (ICT)-based innovations, which have demonstrated their potential to contribute to the socio-economic development of countries, are also growing. ITU is called upon to support Member States in the Africa region to build more effective ICT-based innovation ecosystems.

Result-based analysis

Expected results

- Assistance in the development of national digital economy strategies focusing on enabling policies and regulations that can enhance the use of digital technologies.

- Assistance in the development of digital inclusion strategies, policies, regulatory frameworks and guidelines specifically targeted at achieving social and financial inclusion through improving digital literacy and access.

- Assistance in developing action plans with digital key performance indicators (KPIs) encompassing the adoption of e-applications geared to sustainable development in various aspects of African economies.

- Assistance in the adoption and implementation of relevant standards that are targeted at addressing challenges of interoperability stemming from the disruptive and transformative spread of digital innovation.

Key Performance indicators

- Number of digital strategies drafted and published

- Number of countries assisted in Digital inclusion

- Number of guidelines and policies produced

- Number of workshops organized on relevant standards

Expected results

- Support for improving Member States' capability to create effective innovation policy interventions in all stages of innovation.

- Help in designing models for financing the ICT ecosystem in Africa, and identification of partnership opportunities to establish sustainable innovation frameworks.

- Support for capacity building, especially in the area of intellectual property protection as a fundamental pillar for innovation.

- Assistance in the development and operationalization of frameworks for manufacturing of ICT goods in Africa resulting from innovative work.

Key Performance indicators

- Number of countries assisted

- Number of partnerships concluded

- Number of workshops and attendance

- Number of partners identified and frameworks established

AFR2: Promotion of emerging broadband technologies

Regional Initiative Objective: To promote emerging technologies to assist the Africa region in securing the full benefits of high-speed, high-quality broadband.

Result-based analysis

Expected results	Key Performance indicators
· Assistance in the development of national and regional strategic plans, focusing on enabling policies and regulations addressing high-speed, high-quality broadband networks in the region.	· Guideline for development of national and regional strategic plans for the region produced. · At least two countries assisted.
· Providing support that will enable the sharing of best practices on financing models as well as the identification of partnership opportunities to enhance high-speed, high-quality broadband.	· At least two workshop organised in the region. · At least two partners identified and engaged.
· Assistance in promoting the harmonization of subregional broadband plans so as to ensure equitable access to high-speed, high-quality broadband for all.	· Two workshop on harmonization of subregional broadband plan organised. · At least one subregional broadband plan model validated.
· Assistance with human capacity development resources, through training programmes, workshops and such like, to exchange expertise and to provide persons with disabilities with the platform to participate in and benefit from the emergence of new broadband technologies.	· At least two training session organised.
· Provision of support that will enable the promotion, coordination and establishment of Internet exchange points (IXPs) at the national, subregional and regional levels for better bandwidth control.	· A case study on IXP established in Africa completed. · At least one workshop organised.
· Assistance in extending the regional and continental backbone initiative to ensure the resilience of submarine cables	· Assistance provided to at least one sub region.

AFR3: Building trust and security in the use of telecommunications/information and communication technology

Regional Initiative Objective: To assist Member States in developing and implementing policies and strategies, standards and mechanisms to enhance the security of information systems and networks, ensure interoperability of digital technologies, protect data and people and guarantee digital trust. To protect information and communication technology (ICT) and its applications.

Result-based analysis

Expected results	Key Performance indicators
Ensuring that the goal of the Connect 2020 Agenda to raise cybersecurity readiness by 40 per cent is achieved by 2020.	Percentage of countries cyber-safe
Assistance to Member States in assessing and adapting legislative and regulatory frameworks, making better use of the report on the ITU GlobalCybersecurity Index (GCI).	Number of countries assisted in the cybersecurity legislation
Encouraging the development of a global framework for collaboration and awareness at regional and subregional levels for the development of a global culture of cybersecurity and to help consumers better understand and protect against risks.	Number of workshops organized
Assistance in educating consumers on e-commerce and mobile transactions and informing them about the financial legislation governing electronic transactions and mobile-payment systems.	Number of Consumers associations trained
Promoting the establishment of institutional and organizational mechanisms at the national and regional levels to facilitate the effective implementation of cybersecurity strategies.	Number of cyber strategies elaborated
Developing measures to protect consumers, children and other vulnerable persons when using ICTs.	Number of guidelines produced
Raising awareness of cyberthreats, cybersecurity measures and quality of service in the use of ICTs.	Number of workshops organized
Adoption of measures for the protection of privacy and personal data.	Percentage of counties promulgating laws on personal data

Expected results	Key Performance indicators
· Assistance in the establishment of appropriate structures (data centres, Internet exchange points (IXPs), etc.) for the development of cybersecurity and the fight against cybercrime, and in promoting the setting up of computer incident response teams (CIRTs) at the national and regional levels.	· Number of countries assisted in IXP/CIRT
· Developing a harmonized strategy to enhance information security and combat spam and cyberthreats.	· Number of countries signing UACybersecurity Convention

AFR4: Strengthening human and institutional capacity building

Regional Initiative Objective: To strengthen human and institutional capacity building in the Africa region. Countries in the Africa region are in dire need of human and institutional capacity-building interventions that would help them transform society as a whole in preparation for the emerging digital socio-economic environment. The Africa region therefore seeks ITU's assistance in enhancing the region's capacity to effect this transformation. Although some training institutions in Africa that provide information and communication technology (ICT)-related training and capacity building to the membership already exist, there may be a need to enhance their capacities.

Result-based analysis

Expected results	Key Performance indicators
1) Assistance in undertaking a comprehensive assessment of the institutional and human capacity development environment in the Africa region.	• Assessment study completed.
2) Assistance in the establishment of a long-term and responsive regional institutional and human capacity development strategy that takes into account relevant Sustainable Development Goals (SDGs) in respect of such areas as inclusiveness, emerging ICT issues, etc.	• Regional institutional and human capacity development strategy for the Africa Region developed and adopted.
3) Possible assistance to enhance various institutional and human capacity development aspects, including: a) enhancing the existing centres of excellence and other capacity building centres in the region; b) developing Member States' capability to promote accessibility in order to ensure improved specialized skills development to meet the ICT needs of persons with disabilities and thus enhance their use of Internet applications.	• Assistance provided to the Centre of Excellence to enhance their delivery of courses relevant to the region. • At least two countries assisted in the development of national skills to meet the ICT needs of persons with disabilities
4) Continued provision of and increased access to training resources within ITU for Member States in the Africa region.	• At least 50 people from at least 20 countries accessed the training resources within the ITU.

AFR5: Management and monitoring of the radio-frequency spectrum and transition to digital broadcasting

Regional Initiative Objective: To assist Member States in ensuring the transition to digital broadcasting and efficient and economical management of the radio spectrum and orbital resources.

Result-based analysis

Expected results	Key Performance indicators
1) Assistance in the implementation of a post-migration action plan that supports the development of new services offering the best technical and economic conditions in terms of accessibility; in the definition of conditions for the allocation and use of the "digital dividend" to support the development of broadband services; and in capacity building, including sharing knowledge and experiences in satellite service regulation, with emphasis on satellite filing and coordination.	• Number of action plan elaborated in collaboration of Regulators associations
2) Assistance in elaborating financing models to ensure the necessary investments for the transition from analogue to digital.	• Number of requesting countries assisted in the elaboration of financing strategy
3) Assistance to countries for the establishment of a sustainable ecosystem for the production and monetization of local content and channels.	• Number of countries in each sub-region assisted in a pilot project
4) Support for the development of spectrum-management plans at national, regional and global levels, including for the transition to digital broadcasting.	• Number of countries assisted in their NAFT and countries assisted in the digital migration
5) Assistance in the use of tools to help developing countries improve international frequency coordination of terrestrial services in border areas.	• Number of workshops onSMS4DC and HCM4A organized
6) Conducting studies and developing comparative criteria and guidelines on the political and economic aspects of the assignment and use of the radio spectrum, taking into account WTDC Resolution 9 (Rev. Buenos Aires, 2017).	• Number of studies conducted for each economic community (REC)

AMERICAS REGIONAL INITIATIVES

AMS1: Disaster risk reduction and management communications

Regional Initiative Objective: To provide assistance to Member States during all phases of disaster risk reduction, i.e. early warning, disaster response and relief and rehabilitation of telecommunication networks, particularly in Small Island developing states (SIDS) and the least developed countries (LDCs).

Result-based analysis

Expected results

1) Identification of suitable technologies to be used for disaster risk reduction communications, and development of implementation feasibility studies and studies on conformance and interoperability with other technologies and services based on IP technology for emergency telecommunications.

2) Implementation of national and subregional early-warning systems, as well as emergency response and recovery, and identification of critical infrastructure, with special focus on SIDS and LDCs, considering the influence of climate change.

3) Assistance for the development of appropriate policy, regulatory and legislative frameworks, as well as protocols and inter-agency procedures on communications for disaster risk reduction at the national and regional level.

4) Regional meetings and workshops to share experiences and best practices on telecommunications/information and communication technologies (ICTs) for preventive measures for disaster risk reduction and emergency response, maximizing resources, creating more innovative and effective programmes and coordinating actions in border areas for the Americas region.

Key Performance indicators

· At least 1 study on suitable technologies to be used for disaster risk reduction considering the peculiarities of the Region.

· Support provided to at least 4 Member States.

· Assistance provided to at least 4 Member States.

· At least two events. Minimum attendance: 70 people, 10 Member States.

Expected results

Key Performance indicators

5) Temporary availability of equipment for emergency and recovery communications in the Americas region, at the initial stage of a disaster intervention, as part of ITU cooperation in cases of emergency.

· Equipment provided to 100% of requests received.

AMS2: Spectrum management and transition to digital broadcasting

Regional Initiative Objective: To provide assistance to Member States in the transition to digital broadcasting, the use of the digital-dividend frequencies and spectrum management.

Result-based analysis

Expected results	Key Performance indicators
1) Capacity building in spectrum management, digital broadcasting technologies and the use of the digital dividend and new broadcasting services and applications, providing assistance in using tools to support developing countries in improving international coordination of terrestrial services in border areas.	• Assistance provided to at least 8 Member States.
2) Support for the elaboration of spectrum-management plans at the national and regional levels, including the transition to digital broadcasting and the promotion of policies for the use of spectrum in underserved areas.	• Assistance provided to at least 1 Member State.
3) Elaboration of studies, indicators and guidelines on aspects of the assignment and use of radio-frequency spectrum, with a view, inter alia, to facilitating the use of spectrum for international mobile telecommunications (IMT) and the harmonization of spectrum use among countries in the region, taking into account WTDC Resolution 9 (Rev. Buenos Aires, 2017).	• At least one study recognizing peculiarities of the Region.
4) Assistance to countries in the promotion of inclusive strategies related to the digitization of broadcasting services, including the availability of affordable digital broadcast receivers, and communication strategies to educate and to promote consumer awareness.	• Assistance provided to at least 1 Member State.
5) Assistance in national and regional planning for the use of frequencies released by the transition to digital broadcasting and the deployment of new technologies for broadcasting services.	• Assistance provided to at least 1 Member State.

AMS3: Deployment of broadband infrastructure, especially in rural and neglected areas, and strengthening of broadband access to services and applications

Regional Initiative Objective: To provide assistance to Member States in identifying needs and in the development of policies, mechanisms and regulatory initiatives to reduce the digital divide by increasing broadband access and uptake, as a means of achieving the Sustainable Development Goals (SDGs).

Result-based analysis

Expected results	Key Performance indicators
1) Assistance in the development of a situational study on the deployment of broadband infrastructure for fixed and mobile services and spectrum use that will enable administrations to identify needs and opportunities, especially of rural and neglected areas, taking into account specific subregional characteristics.	• At least one study per sub region, recognizing peculiarities of the each sub region.
2) Assistance for the implementation or improvement of national broadband coverage plans, including support to educational institutions, advanced networks, research centres, cooperatives and non-profit organizations that provide telecommunication services, especially in rural, remote and underserved areas, taking into account mechanisms for access to spectrum and high-speed networks and fostering an enabling environment to promote investment in networks.	• Assistance provided to at least one Member State.
3) Establishment of metrics and methodologies for measuring the condition of broadband services, leveraging public and private investment, public-private partnerships and the participation of small and non-profit operators, especially in landlocked developing countries (LLDCs) and small island developing states (SIDS).	• Metrics and/or methodologies adopted by at least one Member State.

Expected results	Key Performance indicators
4) Assistance for the implementation of plans that promote access to information and communication technologies (ICTs) in municipalities, through the concept of digital/smart cities, and in public social service institutions, as well as increased access to and use of ICTs by the public, especially in rural and underserved areas, to foster access to social services.	• Assistance provided to at least one Member State.
5) Consolidation and dissemination of information, including through meetings and workshops, about standards and conformance and interoperability, and exchange of best practices related to the deployment and operation of broadband networks, especially in rural areas, and connectivity, with emphasis on least developed countries (LDCs), LLDCs and SIDS.	• At least two events. Minimum attendance: 70 people, 10 Member States.

AMS4: Accessibility and affordability for an inclusive and sustainable Americas region

Regional Initiative Objective: To provide assistance to Member States in ensuring the affordability of telecommunication/information and communication technology (ICT) services in order to build an information society for all and ensure accessibility of telecommunications/ICTs for persons with disabilities and others in vulnerable situations.

Result-based analysis

Expected results	Key Performance indicators
1) Assistance in developing guidelines and public policies to promote efficiency in the provision and accessibility of telecommunication/ICT services, especially mobile and emergency services, also considering, but not restricted to, the use of audiovisual accessibility tools.	• Assistance provided to at least 4 Member States.
2) Assistance for the implementation of recommendations to help improve the affordability of broadband, analysing the different factors, and recommendations on actions for promoting the development and management, as appropriate, of national, subregional and regional Internet exchange points (IXPs), subject to national decision, and related to policy and regulatory aspects for enabling the implementation of agreements and alliances on IXPs, in addition to recommendations to improve the availability of transport to international submarine fiber optic network connection points, especially for landlocked developing countries (LLDCs) and small island developing states (SIDS).	• Assistance provided to at least one Member State.
3) Studies monitoring affordability levels in countries, disaggregated by socio-economic variables and taking into account specific and vulnerable populations, for inclusion in the broadband plans, policies, strategies, actions and goals for these population groups, as well as recommendations based on studies of policies and initiatives that enable price reduction of telecommunication/ICT services, broadband deployment and efficient use of spectrum.	• At least one study recognizing peculiarities of the Region.

Expected results	Key Performance indicators
4) Recommended policies that facilitate an enabling environment to ensure that everyone enjoys the full benefit of telecommunication/ICT access and use, through the implementation of local/national ICT projects to eliminate disparities in education at all levels and in professional training, the development of platforms to provide communication and relay services for persons with disabilities, the development of accessible websites for government programmes, services and information, and the implementation of e-government services and other services.	· Assistance provided to at least one Member State.
5) Recommendations on actions for the promotion of cooperation and information sharing on all topics related to public and regulatory policies that will serve to improve the affordability of telecommunication services and broadband.	· Assistance provided to at least 2 Member States.

AMS5: Development of the digital economy, smart cities and communities and the Internet of Things, promoting innovation

Regional Initiative Objective: To assist Member States in developing national and regional policies to boost the digital economy, smart cities and communities (SCC) and the Internet of Things (IoT).

Result-based analysis

Expected results	Key Performance indicators
1) Provision of assistance to Member States in the elaboration of information and communication technology (ICT) policies to promote the development of the digital economy in the region, leveraging new technologies to foster development and promotion of appropriate solutions.	• Assistance provided to at least one Member State.
2) Meetings and workshops on the impact of the digital economy in the region, in collaboration with other relevant organizations.	• At least one event. Minimum attendance: 70 people, 10 Member States.
3) Elaboration of recommendations to promote the creation of innovation centres, including educational innovation, and projects that contribute to the ICT industry, with emphasis on start-ups, small and medium-sized enterprises (SMEs) and young entrepreneurs, and with special focus on women, among others.	• Assistance provided to at least one Member State.
4) Identification of partners/alliances to strengthen innovation based on ICT and the funding of projects and initiatives for the development of the digital economy, SCC and IoT, building coalitions and multistakeholder alliances prioritizing young entrepreneurs.	• Cooperation activities organized with at least 3 relevant partners, in special Regional Telecommunications Entities (CITEL, COMTELCA, CTU).
5) Promotion of strategies and dissemination of best practices on the appropriate management of e-waste.	• Use of Regional Office website to disseminate of best practices on the appropriate management of e-waste.

ARAB STATES REGIONAL INITIATIVES

ARB1: Environment, climate change and emergency telecommunications

Regional Initiative Objective: To raise awareness of and provide support in respect of major challenges in the field of environment, climate change and emergency telecommunications, establish regulatory frameworks, and take necessary measures to address the challenges in this field.

Result-based analysis

Expected results	Key Performance indicators
Assisting countries to:	
1) Issue policy guidelines, regulatory and technical frameworks and necessary measures, providing them with information to meet their needs pertaining to this initiative, specifically in the area of exposure to electromagnetic fields (EMF), emergency telecommunications and the management of electronic waste.	· Number of model policy guidelines, regulatory and technical frameworks on ICTs and Climate Change, EMF, E-waste and Emergency Telecom formulated. · Number of members assisted by BDT on policy guidelines, regulatory and technical frameworks on ICTs and Climate Change, EMF, E-waste and Emergency Telecom.
2) Launch training programmes on emergency telecommunications and the adverse effects of exposure to EMF and e-waste, find appropriate solutions to deal with these issues and formulate a model for making use of e-waste in a manner that supports development.	· Number of training programmes delivered on ICTs and Climate Change, EMF, E-waste and Emergency Telecom. · Number of members participated in the training activities on ICTs and Climate Change, EMF, E-waste and Emergency Telecom.
3) Develop information and communication technology (ICT) applications on the basis of which awareness campaigns and programmes can be launched concerning the risks of exposure to EMF and the recycling and processing of e-waste.	· Number of ICTs apps and awareness campaigns developed and implemented.

ARB2: Confidence and security in the use of telecommunications/information and communication technologies

Regional Initiative Objective: To promote confidence and security in the use of telecommunications/information and communication technologies (ICTs), child online protection (COP) and combating all forms of cyberthreat, including the misuse of telecommunications/ICTs.

Result-based analysis

Expected results	Key Performance indicators
Assisting countries to:	
1) issue policy guidelines, regulatory and technical frameworks and necessary measures, providing them with information to meet their needs pertaining to this initiative, specifically in the area of COP and combating all forms of cyberthreat;	• Number of policy guidelines, regulatory and technical frameworks formulated.
2) continue to sharpen awareness of the strategies to be followed in regard to the technical research and educational materials that are to be provided to and used in the teaching of Arab university students, in order to build confidence and security in the use of telecommunications/ICTs;	• Number of awareness events organized in collaboration with academia. • Number of participants whose awareness was raised through the organization of workshops and forums on the strategies to build confidence and security in the use of ICTs among universities students.
3) protect Arab children and young people from offensive and harmful content on the Internet, particularly by helping to enact laws, legislation and strategies in this area and by raising the awareness of children and young people of the risks through awareness campaigns, workshops and training programmes, and making use of the Arab Regional Cybersecurity Centre;	• Number of laws, legislation and strategies frameworks developed. • Number of awareness campaigns and training programmes delivered.
4) develop ICT applications to help protect children online and combat all forms of cyberthreat, in collaboration with relevant bodies;	• Number of ICT applications on COP developed and implemented in collaboration with relevant partners.
5) organize training courses and seminars on protecting critical telecommunication/ICT infrastructure;	• Number of capacity building activities on protecting critical telecommunication/ICT infrastructure organized.

Expected results	Key Performance indicators
6) prepare training programmes and provide experts to specialized academic institutions to educate and instruct university students and academics in building confidence in the use of telecommunications/ICTs and exchanging experience in this regard;	- Number of training programmes on Cybersecurity for academia developed and implemented in partnership with academic institutions.
7) establish national computer incident response teams (CIRTs) in the Arab region, with optimum coordination among them and between them and CIRTs in the other regions.	- Number of members assisted by BDT on CIRT establishment - Coordination between Arab CIRTs ensured and facilitated through the ARCC.

ARB3:   Digital financial inclusion

Regional Initiative Objective: To support and enable access to and use of digital financial services, using telecommunications and information technology, and achieve high levels of digital financial inclusion.

Result-based analysis

Expected results	Key Performance indicators
Assisting countries to:	
1) Prepare studies to evaluate the status of digital financial inclusion and determine needs at national and regional levels, and to benefit from international experience and best practices, while clarifying the link between financial inclusion, financial stability, financial integration and consumer protection.	· Number of studies done to evaluate the status of digital financial inclusion.
2) Raise awareness of the concept, practice and benefits of digital financial inclusion, in addition to presenting the dimensions of digital financial services in terms of ensuring and facilitating access to all financial services, and how to use them, as well as the quality of services, confidence, security and reliability.	· Number of participants whose awareness was raised through the organization of workshops and forums on digital financial inclusion issues.
3) Provide advisory and technical support and the necessary training programmes to foster coordination between ICT service regulators and providers, on the one hand, and financial service regulators and providers, on the other, so as to achieve integration and convergence between the two sectors.	· Number of participants trained. · Number of countries assisted.
4) Develop guiding regulatory and legal frameworks to stimulate and encourage the adoption of digital financial inclusion and establish public private sector partnerships to ensure the protection of user privacy and data confidentiality and promote confidence and security in digital financial services.	· Number of countries assisted to formulate national regulatory and legal frameworks.
5) Attract financial and technical support from donor and funding entities and regional and international stakeholders to help achieve the objective and results of this initiative, at the request of those Arab States that so wish.	· Number of donors and funding entities attracted to regional activities on digital financial inclusion.

ARB4: Internet of things, smart cities and big data

Regional Initiative Objective: To raise and spread awareness of the importance of future challenges in the era of the Internet of Things (IoT) and big data, and how to address such challenges; establish regulatory frameworks and take measures to help cope with the rapid changes in the field of telecommunications and information technology; and work to ensure the transition to smart cities and communities (SCCs).

Result-based analysis

Expected results

Assisting countries to:

1) formulate strategic and operational plans and regulatory frameworks to cope with IoT and big data technology and formulate a roadmap for the Arab region for the transition to SCCs by developing the telecommunication infrastructure to deliver the broadband services to support their various applications and services.

2) promote technical cooperation and the exchange of expertise between the Arab countries in the area of IoT, big data and SCCs, study the impact thereof, whether positive or negative, and take advantage of global experience.

3) organize a high-level forum on IoT and big data to discuss the main challenges, such as security, privacy and system compatibility, and the most prominent solutions, including digital object architecture; invite experts from industry to address the forum, and hold a side meeting on the fringes of the forum with industry and the private sector.

4) get access to key studies, research and expertise on IoT and smart cities, including big data for Arab States, on a page devoted to the initiative on the website of the Arab Regional Office, and help those Arab States that so wish to obtain advice in this area.

Key Performance indicators

- Number of model strategic and regulatory frameworks on IoT, Smart Cities and Big Data formulated.
- Number of members assisted by BDT on IoT, Smart Cities and Big Data.

- Number of technical cooperation and exchange of expertise between Arab countries conducted.

- Number of regional Forums on Emerging new technologies organized.
- Number of regional annual Forums on IoT, Smart Cities and Big Data developed.

- Number of studies and research on IoT, SSC and Big Data developed.

Expected results	Key Performance indicators
5) build Arab capacities in the use of big data as a supplementary or alternative method and low-cost resource for measuring Sustainable Development Goal (SDG) indicators, while enhancing the capacities of stakeholders to implement and analyse big data to measure key development indicators.	· Number of members assisted by BDT and enhanced their skills on use of big data for measuring SDG implementation.
6) construct secure infrastructures to store the enormous amounts of data needed to create a smart environment.	· Number of countries assisted to construct secure infrastructures.
7) Identify and make use of existing centres of excellence and research and study centres in the Arab States to provide experts and expertise in the areas of the initiative; enter into cooperative partnerships and agreements to help raise the level of availability of broadband services in the Arab States; and use IoT and big data for development, formulate smart city indicators and measure progress on a regular basis.	· Number of participants trained through the existing centers of excellence. · Number of members participated in the CoEs related courses on IoT, Big Data and SSC.

ARB5: Innovation and entrepreneurship

Regional Initiative Objective: To build capacities and raise awareness concerning the culture of innovation and entrepreneurship, in particular for youth and women's empowerment, with the aim of harnessing telecommunication/information and communication technology (ICT) tools to launch projects and undertake economic activities that focus on job creation.

Result-based analysis

Expected results

Assisting countries to:

1) formulate national and regional mechanisms and strategies to stimulate and enrich the culture of innovation in telecommunications/ICT in the region, including relevant best practice.

2) while creating centres of creativity and new institutions, encourage and develop the role of existing institutions and incubator programmes that support micro, small and medium-sized enterprises (MSMEs) in the telecommunication/ICT field to enable young people to set up their own enterprises, and take advantage of best practice in this area.

3) train young people of both genders to take advantage of ICTs to promote the culture of innovation and entrepreneurship.

4) stimulate young people and students to be creative and innovative in developing Arabic-language applications.

5) develop innovative ways of holding regional meetings, workshops and conferences electronically.

6) strengthen and build the capacity of human resources and help to coordinate among training centres, research centres, incubators, institutions and institutes, while encouraging the exchange of expertise at regional and international levels.

Key Performance indicators

- Number of Assessment studies of ICT related innovation systems strategies Implemented.

- Number of Arab regional institutions involved in supporting micro, small and medium-sized enterprises (MSMEs) in the telecommunication/ICT field.

- Number of innovators and young entrepreneurs trained on Innovation.

- Number of new applications developed in Arabic-language.

- Number of events with new ways of electronic participation.

- Number of regional trainings organized and number of visits exchanged /startups hosted, between Arab incubators and entrepreneurship institutions.

ASIA-PACIFIC REGIONAL INITIATIVES

ASP1: **Addressing special needs of least developed countries, small island developing states, including Pacific island countries, and landlocked developing countries**

Regional Initiative Objective: To provide special assistance to least developed countries (LDCs), small island developing states (SIDS), including Pacific island countries, and landlocked developing countries (LLDCs) in order to meet their priority telecommunication/information and communication technology (ICT) requirements.

Result-based analysis

Expected results	Key Performance indicators
1) Development of policy and regulatory frameworks for broadband infrastructure, ICT applications and cybersecurity, taking into account the special needs of LDCs, SIDS and LLDCs, and strengthening of human capacity to address future policy and regulatory challenges.	· Minimum of four (4) Assistances on a regional/sub-regional level or country level
2) Promotion of universal access to telecommunications/ICTs in LDCs, SIDS, and LLDCs.	· Minimum of four (4) Assistances on a regional/sub-regional level or country level
3) Assistance to LDCs, SIDS and LLDCs in adopting telecommunication/ICT applications in disaster management, relating to disaster prediction, preparedness, adaptation, monitoring, mitigation, response, rehabilitation and recovery of telecommunication/ICT networks based on their priority needs.	· Minimum of four (4) Assistances on a regional/sub-regional level or country level
4) Assistance to LDCs, SIDS and LLDCs in their efforts to achieve internationally agreed goals, such as the 2030 Agenda for Sustainable Development, the Sendai Framework for Disaster Risk Reduction, the Istanbul Programme of Action for LDCs, the Samoa Pathway for SIDS and the Vienna Programme of Action for LLDCs.	· Minimum of four (4) Assistances on a regional/sub-regional level or country level

ASP2: Harnessing ICTs to support the digital economy and an inclusive digital society

Regional Initiative Objective: To assist Member States in utilizing information and communication technologies (ICTs) to reap the benefits of the digital economy and in addressing the human and technical capacity challenges for bridging the digital divide.

Result-based analysis

Expected results	Key Performance indicators
1) Planning and elaboration of national strategic frameworks on the digital economy as well as associated toolkits for selected ICT applications and services.	• Minimum of four (4) strategic Framework implemented
2) Establishment and annual updating of a repository of all work done within ITU relating to the digital economy since the World Telecommunication Development Conference (Dubai, 2014).	• Establish and activate a regional repository facility by Q4/2019 • Repository fully functional by Q2/2020
3) Development of policies, strategies and guidelines for practical implementation, including for the Internet of Things (IoT) and smart cities.	• Develop/support development of at least four (4) Policies, strategies or guidelines
4) Deployment of ICT/mobile applications to improve the delivery of value added services in sectors such as health, education, agriculture, governance, energy, financial services and e-commerce.	• At least six (6) ICT/mobile Apps Developed and launched/ supported
5) Identification, collation and sharing of knowledge, best practices and case studies on various telecommunication/ICT applications.	• Enhance awareness and skills of at least 100 participants • At least four (4) regional / Sub-regional events organized • At least four (4) case studies Compiled
6) Development of cross-sectoral national digital skills programmes for inclusiveness, especially for women, youth, the elderly and persons with specific needs.	• At least four (4) assistances on cross-sectoral national digital skills programmes developed

ASP3: Fostering development of infrastructure to enhance digital connectivity

Regional Initiative Objective: To assist Member States in the development of telecommunication/information and communication technology (ICT) infrastructure in order to facilitate provision of services and applications on that infrastructure.

Result-based analysis

Expected results	**Key Performance indicators**
1) Migration/transition of analogue networks to digital networks, application of affordable wired and wireless technologies (including interoperability of ICT infrastructure), and optimized use of the digital dividend.	• Minimum of four (4) assistances on a regional/sub-regional level or country level
2) Maximized use of new and emerging technologies for the development of telecommunication/ICT networks, including 5G and smart grid infrastructure and services.	• Enhanced awareness and skills through delivering at least six (6) trainings
3) Strengthening of capacity to develop and implement national broadband plans in order to provide broadband access to unserved and underserved areas (including support for study of the status of national broadband networks and international connectivity), to promote affordable access, especially for youth, women, indigenous peoples and children, to select appropriate technologies, to develop and use universal service funds effectively, and to develop financially and operationally sustainable business models.	• Strengthened capacity of at least four (4) Member States • Enhanced capacity of at least one hundred (100) participants in the promotion of affordable access • Develop/identify financially and operationally sustainable business models
4) Promotion of Internet exchange points (IXPs) as a long-term solution to advance connectivity, deployment of IPv6-based networks and applications, and progress in the transition from IPv4 to IPv6.	• Minimum of four (4) assistances on a regional/sub-regional level or country level

5) Strengthening of the capacity to implement conformance and interoperability (C&I) procedures and testing and to plan resources for C&I programmes, and facilitation of the establishment of common regional and subregional C&I regimes (including the adoption and implementation of mutual recognition arrangements)

- Minimum of four (4) assistances on a regional/sub-regional level or country level

6) Attention to spectrum-management issues, including radio-frequency planning, new spectrum-sharing approaches, harmonized spectrum allocation and spectrum monitoring systems, and support for preparations for world radiocommunication conferences (WRCs) and implementation of their outcomes.

- Minimum of six (6) assistances on a regional/sub-regional level or country level

7) Building of skills for the development and use of satellite telecommunications.

- Minimum of four (4) assistances on a regional/sub-regional level or country level

8) Strengthening of cooperation with international/regional organizations to enhance regional ICT connectivity, such as the Asia-Pacific Information Superhighway (AP-IS).

- Minimum of four (4) assistances on a regional/sub-regional level or country level

ASP4: Enabling policy and regulatory environments

Regional Initiative Objective: To assist Member States in developing appropriate policy and regulatory frameworks, fostering innovation, enhancing skills, increasing information sharing and strengthening regulatory cooperation, thereby contributing to a supportive regulatory environment for all stakeholders.

Result-based analysis

Expected results	Key Performance indicators
1) Sharing of information on developments in policy, legal and regulatory frameworks as well as market developments in the information and communication technology (ICT) sector and the digital economies it enables.	- Minimum of four (4) assistances/events on a regional/ sub-regional level or country level
2) Development, implementation and review of strategies, policies and legal and regulatory frameworks, including for next-generation universal service obligation (USO), consumer protection, transformation of small and medium-sized enterprises (SMEs) to digital enterprises, and innovation and entrepreneurship.	- Minimum of four (4) assistances/events on a regional/ sub-regional level or country level
3) Encouraging inclusive dialogues and strengthening cooperation among national and regional regulators, policy-makers and other telecommunication/ICT stakeholders, as well as with other sectors of the economy, on topical policy, legal, regulatory and market issues.	- Minimum of six (6) assistances/events on a regional/ sub-regional level or country level
4) Strengthening institutional, human and technical capacity on topical policy, legal and regulatory issues, as well as on economic and financial issues and market developments.	- Minimum of four (4) assistances/events on a regional/ sub-regional level or country level - Enhanced capacity of at least one hundred (100) participants on topical policy, legal and regulatory issues, as well as on economic and financial issues and market developments
5) Improved awareness of policy and regulatory frameworks relating to data privacy and cross-border data.	- Minimum of four (4) assistances/events on a regional/ sub-regional level or country level
6) Development of strategic frameworks to support research and development activities in ICT in developing countries.	- Minimum of four (4) assistances/events on a regional/ sub-regional level or country level

ASP5: Contributing to a secure and resilient environment

Regional Initiative Objectives: To assist Member States to develop and maintain secure, trusted and resilient networks and services, and to address challenges related to climate change and disaster management.

Result-based analysis

Expected results	Key Performance indicators
1) Compilation of national and/or regional cybersecurity strategies, establishment of national cybersecurity capabilities such as computer incident response teams (CIRTs), and sharing of good practices, through the Global Cybersecurity Index (GCI), to nurture a culture of cybersecurity.	• Minimum of four (4) assistances/events on a regional/sub-regional level or country level
2) Strengthening of institutional cooperation and coordination among the key actors and stakeholders at the national, regional and global level (including through organizing cyberdrills) and of the capacity to address issues related to cybersecurity.	• Minimum of four (4) assistances/events on a regional/sub-regional level or country level
3) Development of national emergency telecommunication plans and ICT-based initiatives for providing medical (e-health) and humanitarian assistance in disasters and emergencies.	• Minimum of four (4) assistances on a regional/sub-regional level or country level
4) Incorporation of disaster-resilient features in telecommunication networks and infrastructure, and development of ICT-based solutions (including wireless and satellite-based technologies) to enhance network resilience.	• Minimum of four (4) assistances on a regional/sub-regional level or country level
5) Development of standards-based monitoring and early-warning systems linked to national and regional networks, and enhanced use of active and passive space-based sensing systems for disaster prediction, detection and mitigation.	• Minimum of four (4) assistances on a regional/sub-regional level or country level
6) Formulation of comprehensive strategies and measures to help mitigate and respond to the devastating effects of climate change, including e-waste policy.	• Minimum of four (4) assistances on a regional/sub-regional level or country level

CIS REGIONAL INITIATIVES

CIS1: Development of e-health to ensure healthy lives and promote well-being for all, at all ages

Regional Initiative Objective: To assist the ITU Member States in the region with the development of regulatory texts, technical solutions and specialized training programmes in the field of e-health (including telemedicine), with the aim of providing the public with improved medical services through the use of infocommunications.

Result-based analysis

Expected results	Key Performance indicators
1) Provision of more complete information to the representatives of telecommunication administrations, government healthcare authorities, medical institutions and the private sector regarding the current legal/regulatory and organizational/technical frameworks in the area of e-health.	· Number of countries involved.
2) Establishment of pilot telemedicine stations with a guaranteed electricity supply derived from solar energy.	· Number of stations established.
3) Development of technical solutions in the field of e-health, including telemedicine, the processing of digital medical data, personalized medical-service records, the electronic outpatient card, the electronic patient health record, and so on.	· Number of relevant projects/activities.
4) Recommendations on the application of modern technical solutions in the design of e-health systems, including telemedicine networks.	· Number of recommendations. · Number of countries using them.
5) Courses focusing on the training of medical students, and enhancing the skills of practicing medical staff, in the use of ICTs in healthcare, including telemedicine, as well as courses for IT specialists on the maintenance of medical information systems.	· Number of courses. · Number of professionals trained.

CIS2: **Use of telecommunications/information and communication technology to ensure inclusive, equitable, quality and safe education, including the enhancement of women's knowledge of information and communication technologies and e-government**

Regional Initiative Objective: To provide ITU Member States in the region with centralized consultative and technical assistance in the various aspects of the use of telecommunications/information and communication technology (ICT) in education, as well as in regard to raising the level of people's ICT literacy, in the interests of human capacity development and of ensuring gender and social equality.

Result-based analysis

Expected results	Key Performance indicators
1) Provision of consultative and technical support to representatives of educational establishments with regard to current progress in the use of telecommunications/ICTs in education.	• Number of countries involved.
2) Establishment of training centres for enhancing women's knowledge of ICTs and e-government.	• Number of centres established.
3) Development of educational technologies and methods using telecommunications/ICTs.	• Number of relevant projects/activities.
4) Development of systems for providing pupils, parents and teachers with information on the safe use of Internet resources.	• Number of relevant projects/activities.
5) Further training courses, training sessions and seminars on introducing telecommunications/ICTs into education and human capacity development, including in rural areas, and also for persons with disabilities.	• Number of courses, training sessions and seminars. • Number of professionals trained.

CIS3: Development and regulation of infocommunication infrastructure to make cities and human settlements inclusive, safe and resilient

Regional Initiative Objective: To assist ITU Member States in the region in developing regulatory instruments and technical solutions aimed at creating an enabling environment for the development of infocommunication infrastructure in cities and human settlements, including the use of smart devices.

Result-based analysis

Expected results	Key Performance indicators
1) Recommendations on the development of infocommunication infrastructure, including the use of telecommunications and other connective media to support and facilitate the sustainable development of smart cities in developing countries.	• Number of recommendations. • Number of countries using them.
2) Recommendations on development of the regulatory and legal framework governing the process of building and servicing infocommunication infrastructure in facilities of diverse ownership, including the use of smart devices for developing urban infrastructure.	• Number of recommendations. • Number of countries using them.
3) Implementation of pilot projects for the introduction of smart devices in the interests of road-traffic safety, control of street lighting, energy saving, water-supply management, etc.	• Number of relevant projects/activities.
4) Further training courses, training sessions and seminars on the infrastructure of cities and human settlements.	• Number of courses, training sessions and seminars. • Number of professionals trained.

CIS4:   Monitoring the ecological status and the presence and rational use of natural resources

Regional Initiative Objective: To assist ITU Member States in the region in monitoring the ecological status and the presence and rational use of natural resources.

Result-based analysis

Expected results	Key Performance indicators
1) Development of information systems to support decision-making in regard to monitoring of the ecological status and the presence and rational use of natural resources, including the creation of a spatial data infrastructure.	· Number of relevant projects/activities.
2) Creation of repositories of metadata relating to the results of studies on the ecological status of the region's natural resources.	· Number of relevant projects/activities.
3) Providing the governmental authorities responsible for the conservation of natural resources with high-quality, well-organized and harmonized spatial information for use in analysing and forecasting the state of the environment.	· Number of countries involved.
4) Further training courses, training sessions and seminars on monitoring the ecological status and the presence and rational use of natural resources.	· Number of courses, training sessions and seminars. · Number of professionals trained.

CIS5: **Fostering innovative solutions and partnership for the implementation of Internet of Things technologies and their interaction in telecommunication networks, including 4G, IMT-2020 and next-generation networks, in the interests of sustainable development**

Regional Initiative Objective: To assist ITU Member States in the region with harmonious transformation of the telecommunication market and transition of telecommunication operators to the provision of innovative services to users, ensuring the stability and enhanced performance of telecommunication networks, including 4G, IMT-2020 and next-generation networks (hereinafter "telecommunication networks") within a context of ubiquitous implementation of the Internet of Things (IoT) concept and technologies.

Result-based analysis

Expected results	Key Performance indicators
1) Development of recommendations on the use of modern technologies and advanced concepts for the operation of the telecommunication market, including principles for telecommunication network interworking, tariff-setting for services, numbering, addressing and identification, as well as issues relating to service quality, security and reliability and traffic management, including aspects of net neutrality.	· Number of recommendations. · Number of countries using them.
2) Increased interoperability among telecommunication networks, services and devices through implementation of the IoT concept, including the industrial IoT.	· Number of relevant projects/activities.
3) Help in ensuring the required level of confidence and security when implementing the large-scale transformation of telecommunication networks within the context of introduction of the IoT concept, including the industrial IoT.	· Number of relevant projects/activities.
4) Establishment of a single toolkit and a set of specifications for the testing of devices, telecommunication networks and their components within the framework of the IoT concept, including the industrial IoT, on the basis of regional laboratories.	· Number of countries involved.
5) Development of recommendations relating to the establishment and operation of regional IoT laboratories, in the interests of sustainable development.	· Number of recommendations. · Number of countries using them.

EUROPE REGIONAL INITIATIVES

EUR1: Broadband infrastructure, broadcasting and spectrum management

Regional Initiative Objective: To facilitate high-speed connectivity with resilient and synergistic infrastructure development, deployment and sharing, whilst ensuring a trusted and quality user experience.

Result-based analysis

Expected results	Key Performance indicators
1) Development of plans (national and regional) and feasibility studies for the deployment of ubiquitous resilient high-speed connectivity, including 5G/IMT-2020 and digital broadcasting deployment, with all relevant components including legislation, standards, organizational set-up, capacity building and cooperation mechanisms, as needed.	• Number of plans and studies elaborated.
2) Sharing of guidelines on collaborative regulation between the telecommunication sector and other synergistic sectors such as energy, railway and transportation.	• Number of stakeholders receiving guidance.
3) Assessment of dynamics, challenges and opportunities in respect of the roll-out of diverse broadband technologies across Europe in the context of the creation of ubiquitous resilient high-speed broadband infrastructure.	• Number of reports issued addressing the ICT infrastructure roll-out.
4) Sharing of best practices and case studies in cable TV, digital broadcasting, 5G experience, early-use cases and trends in next generation access network roll-out.	• Number of stakeholders receiving information through relevant workshops, seminars, conferences and disseminated reports.
5) Mapping of ubiquitous infrastructure and services, fostering harmonization of approaches across the region and taking into account infrastructure-sharing approaches applied by countries.	• Number of European countries providing information to the BDT repositories.

Expected results	Key Performance indicators
6) Establishment of quality-of-service systems and consumer-protection frameworks.	· Number of countries assisted in the area.
7) Development of plans for information and communication technology (ICT) for sustainable energy covering different types of ICT applications and innovations.	· Number of countries assisted.

EUR2:   A citizen-centric approach to building services for national administrations

Regional Initiative Objective: To facilitate the development of transformative and paperless citizen-centric services that are accessible and available to all members of society.

Result-based analysis

Expected results

Assistance to the countries in the following:

1) Creation of an experience- and knowledge-exchange platform between countries.

2) Development of technical and service infrastructure (data centres, networks, secure gateways, authentication, interoperability, standards and metadata) as well as capacity building within the national administrations and institutions.

3) Fostering the development of and increase in types of online transactional services, including applications for administration-to-administration (A2A) and administration-to-customer (A2C) services.

4) Building the capacities necessary for accelerating the process of national and regional digitization.

5) Raising public trust through security enhancements in e-government services, digitization processes and awareness-raising campaigns, including promotion of application-based solutions for e-government by national administrations and other institutions.

6) Identification of key horizontal factors for the successful implementation of e-government services and digitization, such as secure and accessible digital identification, tools for data analysis, integrating workflow solutions, approach to re-use of data, and fostering their development.

Key Performance indicators

- Number of countries involved in the exchange.

- Number of countries benefiting from the ITU assistance or capacity building exercise.

- Number of countries benefiting from the ITU assistance or capacity building exercise.

- Number of stakeholders involved in the capacity building exercises.

- Number of countries and stakeholders benefiting from the ITU actions related to raising public trust.

- Number of countries assisted.

EUR3:   Accessibility, affordability and skills development for all to ensure digital inclusion and sustainable development

Regional Initiative Objective: To bridge the digital divide and equip all groups of society, including persons with disabilities and specific needs, to take advantage of information and communication technology (ICT), by enabling capacity building in digital skills.

Result-based analysis

Expected results

Assistance to the countries in need in the following:

1) strengthening and supporting regional cooperation and engagement of all relevant stakeholders, in line with the European Accessibility Act, in the development and implementation of ICT accessibility policies and solutions in the European region.

2) raising awareness and promoting relevant guidelines on public policies, including exchanging knowledge and sharing good practices on ICT accessibility products and services for persons with disabilities and specific needs, through meetings and workshops, including a regional conference which could be called "Accessible Europe – Information and communication for all".

3) developing regional and in-country capacity through relevant web accessibility training to ensure that government websites and related services are available and accessible to all citizens, including persons with disabilities and specific needs.

4) developing regional and in-country capacity to promote and deliver to relevant stakeholders training courses in ICT accessibility, including training on public procurement, as a tool to improve the inclusion of persons with disabilities and specific needs in education, employment, and economic and social life;

Key Performance indicators

- Number of relevant stakeholders engaged in the process of development and implementation of ICT accessibility policies and solutions.

- Number of meetings and stakeholders involved.

- Number of countries assisted.

- Number of countries and stakeholders involved in building human capacities in field of ICT accessibility.

Expected results	Key Performance indicators
5) encouraging regional cooperation between research centres and academia in speech technologies, in order to improve these technologies to overcome disabilities;	· Number of stakeholders approached.
6) raising awareness about accessibility possibilities of TV and video programming on digital platforms, and implementing appropriate solutions;	· Number of actions and targeted audience.
7) encouraging the implementation, and related measurement of progress, of regional and national ICT activities and projects aiming to eliminate disparities in the use of and access to ICTs for websites of public institutions and government education programmes, services and information;	· Stocktaking of best practices implemented.
8) encouraging the implementation of digital content in education;	· Number of actions carried out and European stakeholders reached out to the implementation of digital content in education.
9) developing regional and in-country capacity building on coding and computer programming tools that will be available to all, including persons with disabilities and specific needs;	· Number of stakeholders reached.
10) promoting digital literacy, digital skills and e-education, and implementing accessible ICTs in e-education.	· Number of actions carried out and European stakeholders reached out to implementing accessible ICTs in e-education.

EUR4: Enhancing trust and confidence in the use of information and communication technologies

Regional Initiative Objective: To support the deployment of resilient infrastructure and secure services allowing all citizens, especially children, to use information and communication technologies (ICTs) in their daily lives with confidence.

Result-based analysis

Expected results

Assistance to the countries in need in the following:

1) providing regional platforms and tools for building human capacities (awareness and expert training) to enhance trust and confidence in the use of ICTs.

2) sharing country and regional best practices and case studies and conducting surveys on enhancing confidence and trust in the use of ICTs.

3) elaboration or review of national cybersecurity strategies.

4) setting up or improving the capabilities of national computer security incident response teams (CSIRTs) and the corresponding networks to support these CSIRTs in cooperating with each other.

5) conducting simulation exercises such as cyberdrills at national and regional level in cooperation with international and regional organizations, and assisting countries in developing tools through synergies and resource optimization.

Key Performance indicators

· Number of physical meetings organized and number of stakeholders that participated.

· Number of case studies shared and surveys conducted.

· Number of countries assisted in reviewing the national cybersecurity strategies.

· Number of CSIRT benefiting from actions carried out in the region.

· Number of stakeholders involved in the cyberdrills.

EUR5: Information and communication technology-centric innovation ecosystems

<u>Regional Initiative Objective</u>: To enhance entrepreneurship and establish a sustainable culture of innovation through concrete strategic actions using information and communication technology (ICT) as an enabler, building on the existing regional initiative in Europe on entrepreneurship, innovation and youth.

Result-based analysis

Expected results

Assistance to the countries in need in the following:

1) initiating a review of the data collected, analysing the current situation and proposing effective recommendations to use ICT as an innovation enabler.

2) undertaking ecosystem mapping exercises to coordinate efforts and to create new projects and activities, by facilitating cooperation between existing actors and by highlighting gaps in the ecosystem which have a high impact on stakeholders

3) developing human capacity through the identification and provision of practical skills needed in order to support innovative industries

4) identifying sustainable funding models to support the innovation ecosystems

5) sharing country and regional best practices and case studies on all aspects of ICT as a driver of innovation

6) providing a regional platform for strengthening regional cooperation between ICT-centric innovation ecosystems, through the holding of regional innovation forums.

Key Performance indicators

- Number of countries assisted.

- Number of countries assisted and number of projects (not necessarily ITU led) that were established in follow up to the assistance.

- Number of countries and stakeholders involved the human capacity building exercises.

- Number of countries involved.

- Number of reports and best practice exchanges.

- Number of countries involved in the regional innovation forums.