AFRICA **** REGIONAL INITIATIVES**

BUENOS AIRES ACTION PLAN 2018-2021



REGIONAL INITIATIVES



AFRICA - REGIONAL INITIATIVES

oreword	1
ntroduction	2
AFRICA REGIONAL INITIATIVES 2018-2021	4
AFR1: Building digital economies and fostering innovation in Africa	6
AFR2: Promotion of emerging broadband technologies	.28
AFR3: Building trust and security in the use of telecommunications/information	
nd communication technology	.42
FR4: Strengthening human and institutional capacity building	.58
AFR5: Management and monitoring of the radio-frequency spectrum	
nd transition to digital broadcasting	.82

Photo credits: Getty Images: cover page 1 and cover page 2. All other photos are from Shutterstock. The regional initiatives for Africa are in the areas of building digital economies and fostering innovation, promotion of emerging broadband technologies, building trust and security in the use of telecommunications/information and communication technology, strengthening human and institutional capacity building, and management and monitoring of the radio-frequency spectrum and transition to digital broadcasting.



This publication provides a snapshot of implementation of the regional initiatives, presented to Member States during the Regional Development Forum for Africa, held in Accra, Ghana, on 18–20 July 2018. It covers the initial project proposals for the implementation of the Buenos Aires Action Plan (WTDC-17).

Foreword

By Andrew Rugege, Regional Director, ITU Regional Office for Africa

Year on year, the Regional Development Forum (RDF) serves as a platform enabling the region to present to the membership the work done over the previous year and to seek guidance on activities planned for the following year. It offers a rare opportunity for the membership to review progress, share experiences, offer advice and promote good practices.

At the World Telecommunication Development Conference held in Buenos Aires, Argentina, in October 2017 (WTDC-17), the ITU Member States adopted five regional initiatives for each region; these are considered to be the priority areas on which the Union should concentrate in each region over the next four years. For Africa, the agreed regional initiatives reflect the agreed priorities in the areas of building digital economies and fostering innovation, promotion of emerging broadband technologies, building trust and security in the use of telecommunications/information and communication technology, strengthening human and institutional capacity building, and management and monitoring of the radio-frequency spectrum and transition to digital broadcasting. To achieve the expected results defined for these five regional initiatives, the RDF will provide stakeholders with a platform for discussing the formulation and implementation of both national and regional projects, defining the implementation framework and the scope and funding mechanisms for the projects. In this brochure, the staff of the Regional Office for Africa have identified some projects as a starting point, proposed a framework and identified some potential partners.



The implementation of regional initiatives as the priority areas for accelerating the achievement of the Sustainable Development Goals (SDG) is far too important and diverse for any single stakeholder, and it is my hope that BDT is a good rallying point for realizing the objectives of the regional initiatives. This is also a call to action for all stakeholders, including Member States, the private sector and academia, to join forces with ITU to ensure that in implementing these initiatives, ICT is the ubiquitous vehicle for achieving a better quality of life, leaving no one in Africa behind. The final report of WTDC-17 is available at: https://www. itu.int/en/ITU-D/Conferences/ WTDC/WTDC17/Documents/ WTDC17_FinalReport_en.pdf"

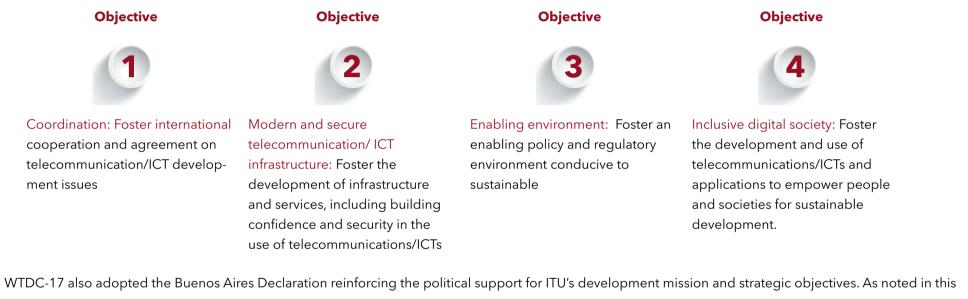
<page-header><page-header><page-header><page-header>

Introduction

The mission of the ITU Telecommunication Development Sector (ITU-D) is not just about connectivity for connectivity's sake, but is more about promoting innovative uses of telecommunications/ICTs that fundamentally improve people's lives. This mission is reiterated in the final report of the World Telecommunication Development Conference (WTDC-17), which took place from 9 to 20 October 2017 in Buenos Aires, Argentina, under the theme of "ICT for Sustainable Development Goals" (ICT@SDGs).

In preparation for WTDC 17, ITU held six regional preparatory meetings (RPMs) around the world in 2016-2017: in Bishkek, Kyrgyzstan, for the Commonwealth of Independent States (CIS); Kigali, Rwanda, for the Africa region; Khartoum, Sudan, for the Arab States; Asunción, Paraguay, for the Americas; Bali, Indonesia, for Asia and the Pacific; and Vilnius, Lithuania, for Europe. Each regional preparatory meeting was preceded by a one-day Regional Development Forum.

The regions articulated their specific priorities in 30 regional initiatives – five per region for each of the six regions (Africa, Americas, Arab States, Asia-Pacific, CIS and Europe). These regional initiatives were endorsed by WTDC-17 and are featured in the Buenos Aires Action Plan. Regional initiatives are intended to address specific telecommunication/ ICT priority areas, through partnerships and resource mobilization to implement projects. Under each regional initiative, projects are developed and implemented to meet the region's needs. Reflecting the outcomes of the six regional preparatory meetings, WTDC-17 endorsed the following four objectives for ITU-D as the main focus of its work for the years 2018-2021:



declaration, implementation of regional initiatives deserves high priority on the part of ITU-D. The declaration underlines how universally accessible, secure and affordable telecommunications/ICTs are a fundamental contribution towards the achievement of the action lines of the World Summit on the Information Society (WSIS) and of the 2030 Agenda for Sustainable Development and the development of the global information society and digital economy.

Through the four objectives above and the regional initiatives, ITU-D will adapt and reinforce the existing links between the WSIS action lines and the SDGs to continue to support global development.

2018-2021 Africa - Regional Initiatives



Regional initiative

Building digital economies and fostering innovation in Africa



THE SITUATION TODAY

Over the past decade countries in Africa have made tremendous progress in rolling out the broadband infrastructure that has significantly improved access to ICT services. Broadband penetration in Africa has reached significant levels, with mobile broadband playing a significant role. However, to reach out to the still unconnected, make better use of the infrastructure and enhance the impact of ICTs on the socio-economic development of African nations, the countries in the region are embarking on the transformation to digital economies in order to reap the full benefits of ICTs and ICT-based innovation.

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.



EXPECTED RESULTS

...... 1

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.

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

5

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

...... 7

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.

PROPOSED PROJECT

Development of digital economies and digital inclusion in countries of the Africa region

PROJECT OBJECTIVE

Assist countries in the Africa region in developing their digital economy strategies, enabling policies and regulations to facilitate ICT-based innovation and foster their socio-economic development and social inclusion.

10

AFRICA - REGIONAL INITIATIVE 1



2019 ACTIVITIES



Assess the current situation in the region, review best practices, conduct comparative studies, and develop a model for the

region. Analyse gaps that need to be addressed.

Organize at least three regional capacitybuilding and validation workshops. Develop/ update guidelines on implementation plans to be shared during the validation workshops.

2

2020-2021 ACTIVITIES

Establish guidelines to assist the membership in developing national economy strategies and policies based on validated models. Establish guidelines for adoption. Continue with the gap analysis to identify challenges and strategies for addressing them.



Establish guidelines for active participation in the C&I Africa Group and for follow-up on the implementation of Pillar 3 (Capacity Building) and Pillar 4 (Assistance to Developing Countries) of the ITU C&I Programme, and promote the establishment of harmonized conformity and interoperability programmes, ICT standards and regional testing activities, as well as measures to combat counterfeit and substandard devices.

- Continuing to assist countries in need.
- 4
- Monitoring and evaluation of the project.





USD 380 000 (Year 1 USD 180 000; Years 2 and 3 USD 200 000).



13

PROPOSED PROJECT

Innovation ecosystems, capacity building and manufacturing ICT goods in Africa

PROJECT OBJECTIVE

To support Member States' capability to create effective innovation policy interventions at all stages of innovation, design models for financing the ICT ecosystem in Africa, develop and operationalize frameworks for manufacturing ICT goods in Africa, and identify partnership opportunities to establish sustainable innovation frameworks.







USD 280 400 (Year 1 USD 120 400; Years 2 and 3 USD 160 000). 1

Conduct a study into ongoing initiatives concerning the vario

initiatives concerning the various innovation ecosystems in the Africa region; and develop models that will enhance innovation ecosystems.



3

Promote training and capacity building in the ITU innovation toolkit.

2019

ACTIVITIES

Identify potential partners for various stages of the project; and organize meetings and conferences to mobilize partnerships. Facilitate a capacitybuilding workshop on innovation policy and frameworks, intellectual property rights and research and development.

4



Enhance partnerships with initiatives offering funding for innovation.





Development of guidelines, model policies and other relevant documents that will help countries with customization and transposition into national documents. ITU assistance in capacity building, research and development and global patent protection, among other areas.



Assist countries requiring assistance to customize and transpose the model documents into their national documents.



Continuing to assist countries in need.



Project monitoring and evaluation.



PROPOSED PROJECT

Using digital health services to accelerate the attainment of health SDGs in the Africa region PROJECT OBJECTIVES 1 Support the implementation and upscaling of digital health solutions at national level, with an emphasis on country-prioritized solutions that contribute to universal health coverage (UHC) and Sustainable Development Goals (SDGs), ensuring that countries have appropriate frameworks in place including e-health strategies and/ or e-health policies. 2 Build capacities of a new generation of African digital health leaders who will lead the process of change and transformation of public health using ICT technology in their countries.

3 Create country-level digital health common platforms as a technology infrastructure in order to support health care delivery in a consistent and efficient manner.

4 Strengthen the capacity of local stakeholders to achieve optimal and efficient use of available resources for e-health, including the development of public-private partnerships (PPPs) with telecommunication providers and non-governmental organizations (NGOs).

5

Large-scale deployment of appropriate, low-cost and high-impact evidence-based and potential game-changing innovations that address health needs.



2018 ACTIVITIES

Conduct two regional digital health capacitydevelopment workshops to train future country and WHO/ITU digital health leaders in the skill sets required to help with the deployment of large-scale digital health systems. Training will cover:

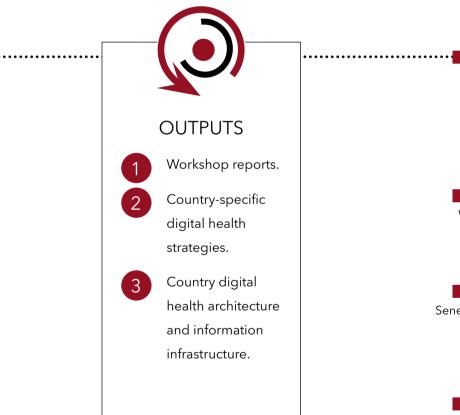
- systems and landscape analysis;
- digital health leadership and management skills;
- digital health skills: solutions, interoperability, enterprise architecture, telecommunications, mong others;
- policy and regulatory expertise;
- business and sustainability models.



2019-2020 ACTIVITIES

Conduct four or five country-specific digital health studies to ascertain functional and technical requirements and establish the necessary national digital health architecture and information infrastructure.

Country studies will design an overall National Digital Health Architecture and Information Infrastructure for the health sector based on a national (digital) health strategy or road map and on a "National Digital Health Interoperability Framework".









USAID, Digital Square, SPIDER, World Bank, AFD.

PROPOSED PROJECT

Using digital services to accelerate the attainment of food security SDGs in the Africa region

PROJECT OBJECTIVES

Support the implementation and upscaling of digital solutions and innovations for agriculture at national level, with an emphasis on country-prioritized solutions that contribute to achieving food security, improved nutrition and the promotion of sustainable agriculture.

2 Ensuring that countries have in place appropriate planning frameworks, such as e-agriculture strategies and/or polices.

Build capacities of a new generation of African digital leaders who will lead the process of change and transformation of the agriculture sector using ICT technology.

4 Create country-level digital agriculture common platforms as a technology infrastructure in order to support the delivery of agriculture services in a consistent and efficient manner.

5 Strengthen the capacity of local stakeholders to move towards optimal and efficient use of available resources, including the development of public-private partnerships (PPPs) with telecommunication providers and non-governmental organizations (NGOs).

6 Promote the creation of an enabling environment with innovative sustainable models designed for limited-resource contexts.



AFRICA - REGIONAL INITIATIVE 1



ACTIVITIES

Conduct one regional e-agriculture strategy development workshop.

The objectives of the workshop are to:

- bring together e-agriculture policy-makers, for example from agriculture and/or ICT ministries;
- raise awareness of the e-agriculture guide, and discuss and validate it with stakeholders in hands-on training on the use of the toolkit;
- bring together proven e-agriculture solutions that will benefit various stakeholders;
- collect and share knowledge, synergies and experiences of e-agriculture models, and cases of success or failure in the region;
- discuss the role of existing national and regional communities of practice (knowledge networks) among e-agriculture solution providers in the e-agriculture sector.



Conduct one or two regional e-agriculture strategydevelopment workshops.

Assist three or four countries in developing and implementing national e-agriculture strategies; assistance to be provided to countries to develop a "National e-Agriculture Strategy". The Strategy will be followed by the design of the overall national Digital Architecture and Information Infrastructure for Agriculture based on the national (digital) strategy or road map and on a "National Digital Agriculture Interoperability Framework". USD 150 000 (Year 1 USD 50 000; Years 2 and 3 USD 100 000).

Estimated budget



FAO African Regional Office.



Canadian CIDA.

PROPOSED PROJECT



Addressing interoperability challenges arising from disruption due to digital innovations



2018-2021 ACTIVITIES

2

3

Establish guidelines for active participation in the C&I Africa Group and for follow-up on the implementation of Pillar 3 (Capacity Building) and Pillar 4 (Assistance to Developing Countries) of the ITU C&I Programme; and promote the establishment of harmonized conformity and interoperability programmes, ICT standards and regional testing activities, as well as measures to combat counterfeit and substandard devices.

Facilitate an inter-regional framework for mobile money interoperability (MMI).

Promote a general framework for the interoperability of ICT services.



•• Estimated budget USD 150 000 (Year 1 USD 50 000; Years 2 and 3 USD 100 000).



Member countries, ITU, and others to be identified.

1

2

3

Regional initiative

Promotion of emerging broadband technologies



AFRICA - REGIONAL INITIATIVE 2



Most countries in Africa have made tremendous strides in rolling out broadband telecommunication infrastructure through the deployment of fibre-optic and mobile technologies, but in some countries there are still significant segments of the population without access to broadband technologies and related services. In some countries with broadband availability, usage is very minimal. There is therefore a need to promote use of emerging broadband technologies for high-speed, high-quality delivery of services.

GPC

AFR

QUALITY ON TIM

OBJECTIVE

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





EXPECTED RESULTS

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.

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.

Assistance in promoting the harmonization of subregional broadband plans so as to ensure equitable access to high-speed, high-quality broadband for all.

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.

...... 5

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.

......6

Assistance in extending the regional and continental backbone initiative to ensure the resilience of submarine cables.

PROPOSED PROJECT

Broadband plan for universal and affordable connectivity and access

BACKGROUND

Over the past decade, some countries in Africa have made progress in rolling out broadband infrastructure that has considerably improved access to ICT services. Broadband penetration in these countries has reached significant levels, with mobile broadband playing an important role. Nevertheless, most citizens in many African countries remain unconnected and the range of available connectivity technologies remains limited.

Currently, most infrastructure deployment is led by the private sector and the rate of deployment has slowed down. A lack of national broadband policies and implementation plans has been identified as one of the factors contributing to the persistent access gap.

Both the public and private sectors are calling for the development and implementation of policies and plans that will stimulate growth and help to close the access gap.

PROJECT OBJECTIVE

To stimulate growth in broadband connectivity and achieve universal access by 2021.



2019 **ACTIVITIES**



Assess the current situation in the region, review best practices and conduct comparative studies.



Develop broadband guidelines for the region.



4

Organize at least three regional capacitybuilding and validation workshops.

Develop/update guidelines on implementation plans, to be shared during validation workshops.

2020-2021 **ACTIVITIES**

Establish guidelines to assist the membership in developing national economic strategies and policies based on validated models.

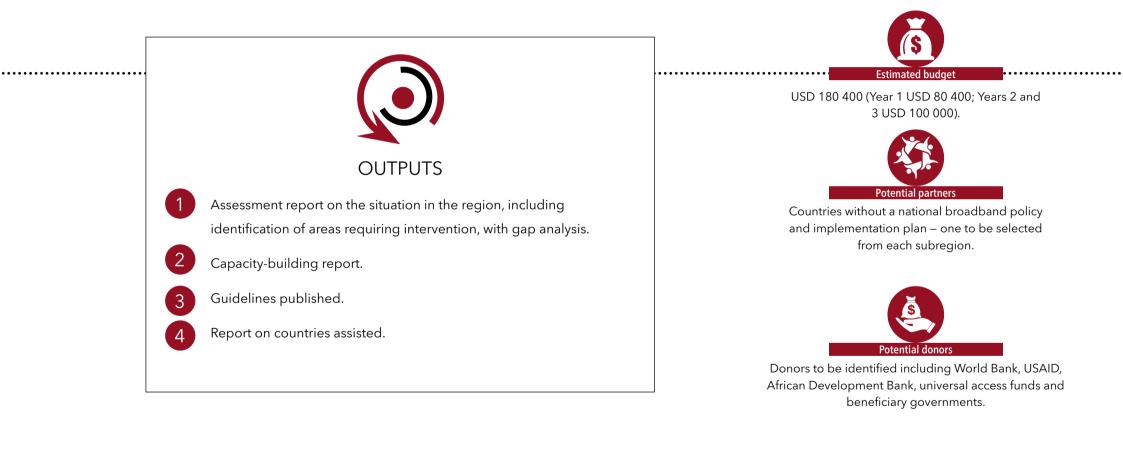


Establish guidelines for adoption and continue with the gap analysis to identify challenges and strategies for addressing them.



Continue to assist countries in need.





High-speed, highquality and cost-effective broadband connectivity and access

PROJECT OBJECTIVE

To assess and promote high-speed, highquality and cost-effective broadband connectivity and access to new emerging technologies for service delivery

Develop model guidelines for broadband gap analysis for connectivity, usage with regard to government service delivery to the public, as well as general public usage in private enterprise (cost-effective broadband availability for use by all assessment of intertrade in the region). 2

Identify partnership opportunities to enhance high-speed, high quality broadband and develop best practices on financing models. Organize a workshop to validate these. E١

click here for



3

harmonized subregional broadband plans through RECs to ensure equitable access to high-speed, highquality broadband for all.

Develop/update





Organize a "Training for Trainers" workshop with the focus on persons living with disabilities to benefit from the emergence of new broadband technologies. Identify appropriate applications and technologies to assist and include persons living with disabilities.





Beneficiary membership.



Donors to be identified; these will include foundations with an interest in child development, as today's children are tomorrow's adults and should be ready for the next industrial revolution.

National and regional Internet exchange points to support high-speed, high-quality broadband connectivity and access

BACKGROUND

Whereas more countries are deploying national exchange points and few regional exchange points are being developed, there is a need for those countries that have not yet developed exchange points to continue developing so that available broadband connectivity can be utilized.Both the public and private sectors are calling for the development and implementation of policies and plans that will stimulate growth and help to close the access gap.

PROJECT OBJECTIVE

To promote implementation of national and regional Internet exchange points to support high-speed, high-quality broadband connectivity and access for new emerging technologies to keep intratraffic within a country and within the region.



2018 ACTIVITIES



Assess the situation in Africa in collaboration with the African Union Commission through PIDA/AXIS and other related projects, in order to ensure synergy of activities.



Complete an IPv6 testbed in Zimbabwe to be used as a subregional testbed for IPv4-to-IPv6 migration in Southern Africa.



- Assess available national and regional Internet exchange points, analyse existing gaps and, if necessary, adopt measures to close them.
- 2

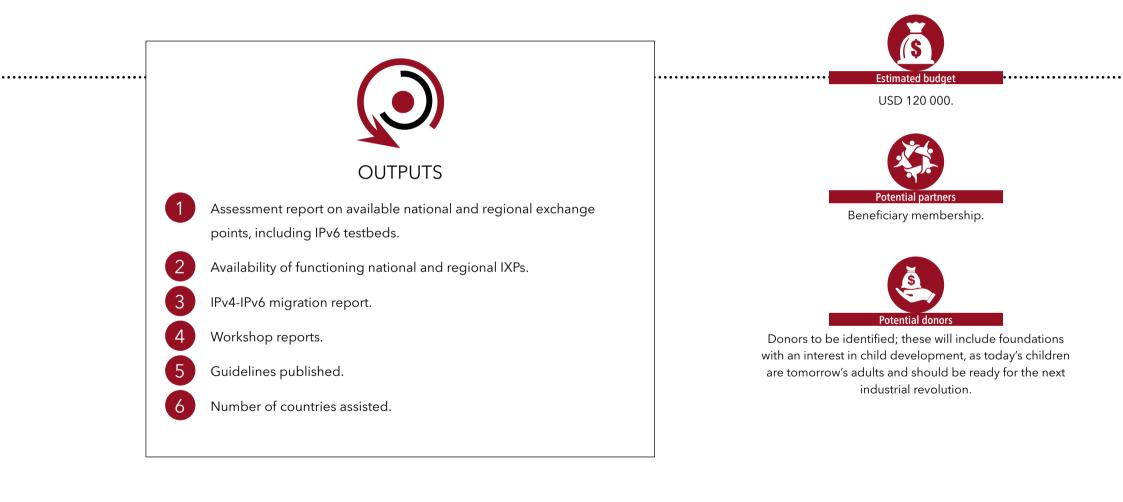
Assess IPv4-IPv6 migration, identify any gap, and where appropriate propose recommendations to close it; promote awareness of IPv6 test beds and IPv6 adoption guidelines and of the importance of exchange points through workshops.



Conduct linking and peering for subregional and regional Internet exchange points (IXPs).



Conduct capacity building for Member States with newly established and existing testbeds for IPv4-to-IPv6 migration.



Regional initiative

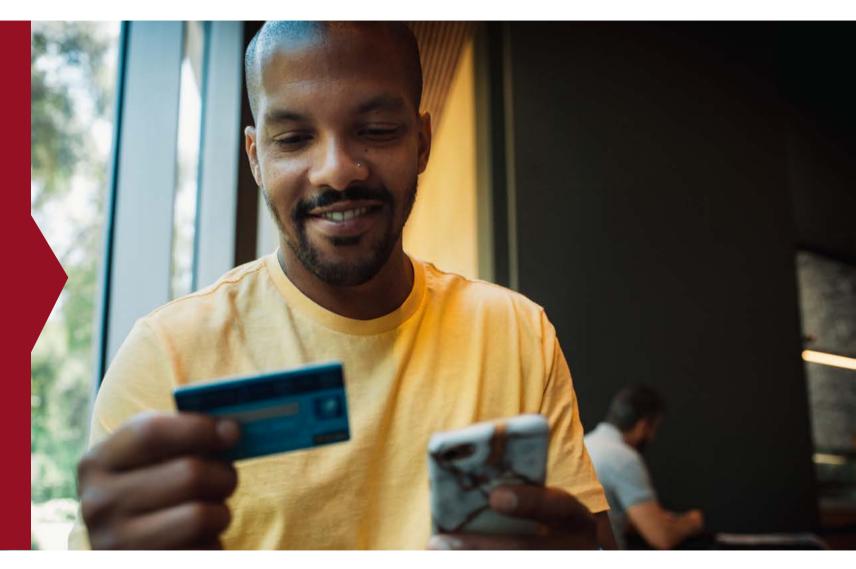
Building trust and security in the use of telecommunications/ information and communication technology

THE SITUATION TODAY

Although most countries in the Africa region have already completed their computer incident response teams (CIRTs) readiness assessments and have established, or are in the process of establishing, their respective CIRTs and computer emergency response teams, some still require assistance in starting the process. Three cyberdrills were carried out, targeting specific groups of countries based on their official language and location.

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.



EXPECTED RESULTS

...... 4

Assistance in educating consumers on e-commerce and mobile transactions and informing them about the financial legislation governing electronic transactions and mobile-payment systems.

...... 5

Promoting the establishment of institutional and organizational mechanisms at the national and regional levels to facilitate the effective implementation of cybersecurity strategies.

Developing measures to protect consumers, children and other vulnerable persons when using ICTs.

.....7

Raising awareness of cyberthreats, cybersecurity measures and quality of service in the use of ICTs.

Adoption of measures for the protection of privacy and personal data.

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.

..... 10

Developing a harmonized strategy to enhance information security and combat spam and cyberthreats.

Ensuring that the goal of the Connect 2020 Agenda to raise cybersecurity readiness by 40 per cent is achieved by 2020.

...... 2

Assistance to Member States in assessing and adapting legislative and regulatory frameworks, making better use of the report on the ITU Global Cybersecurity Index (GCI).

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.

45

Establishment of national, subregional and regional CIRTs

BACKGROUND

CIRTs are critical in addressing cybersecurity incidents efficiently and effectively. No more than 15 of the 44 countries in sub-Saharan Africa have CIRTs, so there is a need to establish national CIRTs to handle computer incidents at the national level. There are currently no regional or subregional CIRTs to facilitate interconnection between existing national CIRTs.



PROJECT OBJECTIVE

- Identify and provide technical assistance to countries without CIRTs in order to establish CIRTs, with funding from their own national sources, universal service funds and other funding partners through bilateral and multilateral donors.
- Establish democratic selection criteria for subregional CIRTs, involving regional economic communities. More than one country can be selected to host subregional CIRTs in order to address language issues.

- Establish democratic selection criteria for regional CIRTs. More than one country can be assigned to host a regional CIRT in order to address language issues.
- 4. Establish interconnection among all subregional and regional CIRTs.
- 5. All IXPs should connect to national CIRTs.

2019 ACTIVITIES

- Provide 15 Member States with technical assistance and mentoring for the establishment of national CIRTs.
- 2

3

- Consult with regional economic communities on the selection of at least one subregional CIRT.
- Provide technical assistance for selected subregional CIRTs to interconnect.

2020-2021 ACTIVITIES



Provide technical assistance and mentoring to 15 Member States for the establishment of national CIRTs.

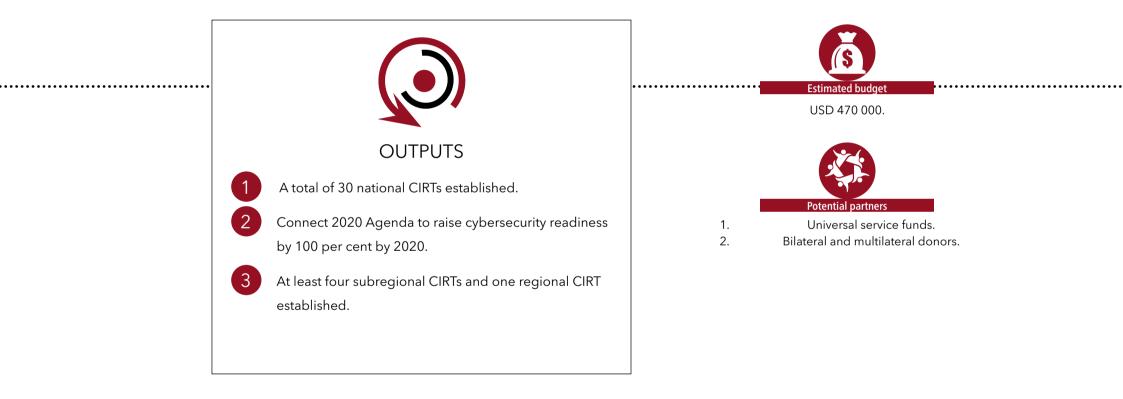


Consult with economic communities and the African

Union on the selection of at least one regional CIRT.



Provide technical assistance for the selected subregional and regional CIRTs to interconnect.



Revision of ITU cybersecurity toolkit and facilitation of its implementation by Member States

BACKGROUND

There is an existing ITU cybersecurity toolkit but it needs to be updated to reflect other expected results agreed at WTDC-17 relating to policies, strategies, legislation and regulatory frameworks.





PROJECT OBJECTIVES

- 1. Ensure that the ITU cybersecurity toolkit is relevant to the establishment of the following:
 - a framework for developing a national cybersecurity policy and strategy;
 - guidelines on developing cyberlegislation and regulations;
 - a framework for combating spam and cyberthreats;
 - guidelines for implementing CIRTs in accordance with the Global Cybersecurity Agenda (GCA);
 - a framework for implementing cybersecurity awareness programmes to help Member State organizations and consumers to understand and protect themselves against cyberthreats/risks.
- 2. Provide technical assistance to Member States in the adoption and implementation of the Malabo and Budapest Conventions.

2019 ACTIVITIES



Revise the ITU cybersecurity toolkit for immediate implementation by July 2019.



Provide technical assistance to the 14 countries that already have CIRTs, as well as the 15 new countries to adopt and implement the Malabo and Budapest

Conventions.

2020-2021 ACTIVITIES

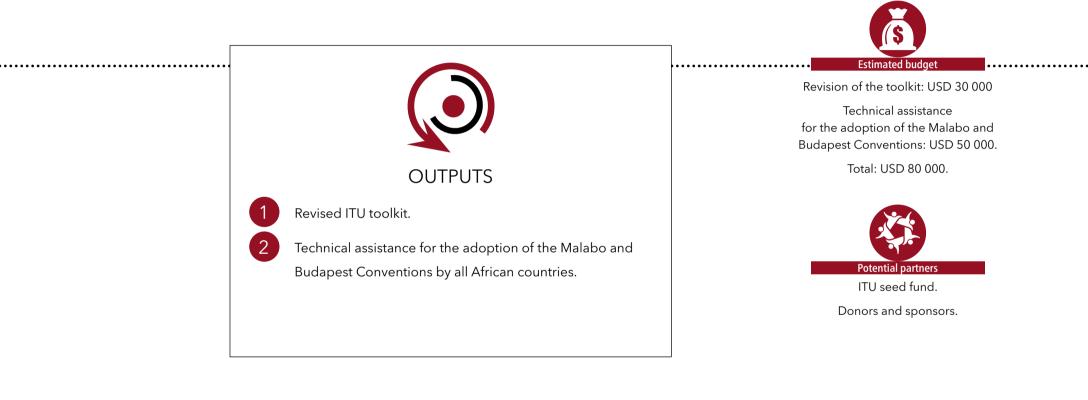


.....

Provide technical assistance to the other 15 countries to adopt and implement the Malabo and Budapest Conventions.



Monitor and evaluate projects implemented in 2021.



Development of guidelines for the protection of privacy and personal data

BACKGROUND

Some countries do not have data protection policies or regulations and may require assistance with protection of privacy and personal data as there is no existing framework.





Capacity-building workshop for the dissemination 2



.

of guidelines.



Validation workshop on the guidelines.

2020-2021

ACTIVITIES



PROJECT OBJECTIVE

To develop guidelines addressing policies, strategies, collaboration, legislation and regulatory frameworks for the protection of privacy and personal data.



Consultancy fee: USD 30 000. Workshops: USD 100 000. Total: USD 130 000.



ITU seed fund. Sponsors, donors and beneficiary countries.



OUTPUTS



Guidelines on data protection and privacy.

55

Annual assessments of the ITU Global Cybersecurity Index (GCI)

BACKGROUND

Currently, not more than 14 Member States have CIRTs; some African countries have therefore not fully implemented cybersecurity strategies and policies. With technical assistance to be provided for the adoption of cybersecurity strategies, the annual assessments of Member States need to be better placed in the report on the ITU Global Cybersecurity Index.

> 2019 ACTIVITIES



Monitor the implementation of other related projects.





PROJECT OBJECTIVE

To assess Member States' adoption and implementation of cybersecurity policies and strategies.



Consultancy: USD 30 000. Workshops: USD 100 000. Total: USD 130 000.



ITU seed fund. Sponsors, donors and beneficiary countries.

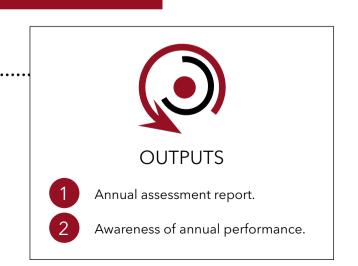
2020-2021 ACTIVITIES



Annual assessment in accordance with the Global Cybersecurity Agenda (GCA) for Global Cybersecurity Index (GCI) improvement.



Annual workshops to discuss assessment reports.



Regional initiative

Strengthening human and institutional capacity building

THE SITUATION TODAY

Countries in the region are starting to look at efficient ways of addressing the digital skills gaps that must be overcome in order to enhance their economies through the opportunities offered by ICTs.

ITU has implemented the first cycle of the new strategy for the Centre of Excellence in Africa that aims to improve delivery through public and private partnerships. Experience shows that the adoption of online courses and distance learning has encountered some challenges.

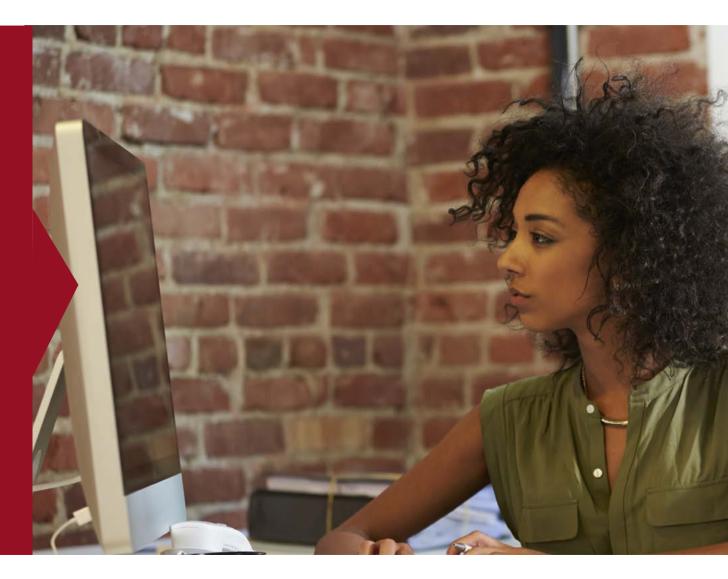


6

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 socioeconomic 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.





EXPECTED RESULTS

Assistance in undertaking a comprehensive assessment of the institutional and human capacity development environment in the Africa region.

Assistance in the establishment of a longterm 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.

Possible assistance to enhance various institutional and human capacity development aspects, including:

3.....

- 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.

Continued provision of and increased access to training resources within ITU for Member States in the Africa region.

Training for the judiciary

PROJECT OBJECTIVE

Provide training for the judiciary in each African country to ensure a harmonized approach to the interpretation, application and enforcement of sector laws at national level in accordance with international practice.

2019 ACTIVITIES



Assessment of the results of the training for the judiciary provided in Kenya with a view to scaling up to the rest of the Africa region. Review and improvement of the training modules.



Deliver training in at least two

countries.









.

Deliver training for at least two more countries.



Monitoring and evaluation.

..........

Development of digital skills in Africa

PROJECT OBJECTIVE

To bring about a shift from traditional methods of teaching in schools, universities and training institutions, to more smart learning based on online courses and distance learning using the latest software and modern telecommunication/ICT techniques to provide access to a range of academic information, resources and subject matter. Help the centre of excellence selected for the cycle to provide more high-quality online courses.

2019 ACTIVITIES



Conduct a study on the status and future plans of countries in the region regarding smart learning, national strategies and digital skills literacy programmes



.....

Develop and validate guidelines on adopting national strategies for smart learning, digital skills and building capacities of high-level executives in selected countries.



3

Provide technical assistance to the Centre of Excellence to enhance capacity to deliver more courses on line and attract more participants from the region and beyond.



Provide countries with technical assistance in order to develop their national strategies for smart learning and digital skills development using the guidelines.



Provide support to the Centre of Excellence to enhance the relevant delivery goals.

Initiative

PROJECT OBJECTIVE

Organize camps to spark the interest of African girls aged between 17 and 20 years in ICTs as a career path, introducing them to coding, gender mainstreaming and confidence building. The initiative also aims to mainstream ICT and gender into national curricula in the education system, and to maintain an online platform where participating girls can continue to access training modules and interact with mentors and access a database of tech clubs, companies and organizations to which they can apply for internships to help confirm their career choices in this field.

2018 ACTIVITIES

Implementation of the initiative is a joint effort between UN Women and ITU, and the first camp took place in August 2018 in Addis Ababa, Ethiopia.



3

4



2019 ACTIVITIES

1

Second international camp for the entire continent in another African country.



Development of an online platform for initiative activities. Mainstreaming of ICT and gender in national curricula in Africa.

Continental and national media campaigns on the initiative.

2020-2021 ACTIVITIES

.....

Two more camps for the entire continent, additional camps in Ethiopia subject to the availability of funds, an online platform fully operational, and national curricula developed in 16 African countries.

Centre of Excellence online connectivity and peering in Africa

BACKGROUND

Since the creation of centres of excellence (CoEs), ITU has made efforts to support the development of CoEs through various initiatives, including support for faculty and curriculum development. These efforts, however, have not gone far enough in facilitating CoE sustainability. One of the major factors holding CoEs back is their inability to share resources and leverage existing technology platforms. The lack of connectivity among CoEs has resulted in a situation where they are unable to share experiences as a true network. A connected CoE will create a more robust and integrated community of learners within the CoE network.





PROJECT OBJECTIVE

To promote increased collaboration among CoEs by enhancing the sharing and exchange of resources (faculty, labs, training content, etc.). •• 2019 ACTIVITIES Promote stakeholder engagement to secure project acceptance.



Assess the current situation concerning CoEs in the region and identify gaps in relationships among CoEs.



Determine global best practices for peering and online collaboration.



Develop a regional architecture for online collaboration among CoEs.



Design a policy framework for implementation.

2020-2021 ACTIVITIES

Organize meetings for CoEs to discuss the project and assign responsibilities.



Establish guidelines on global best practices for peering and online collaboration.



4

Establish guidelines for online collaboration.

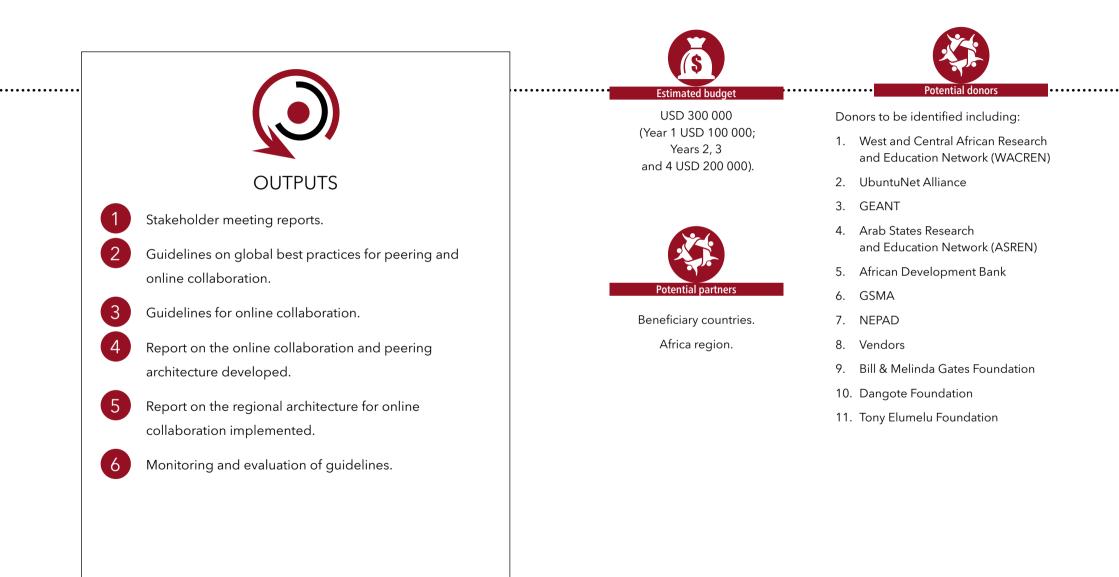
Submit a report on the online collaboration and peering architecture developed.



Implement a regional architecture for online collaboration among CoEs.



Monitor and evaluate the project.



Development/adoption of ICT labs for workshops and training

BACKGROUND

The activities of ITU-D and ITU-T in the conformance testing of ICT devices have generated growing interest in African countries. Members are interested in building capacity through workshops and hands-on training. However, there are few if any testing facilities in the region for such hands-on training, leading to a lack of understanding and poor interpretation of test results and the exploitation of the situation by unscrupulous manufacturers and importers to distribute counterfeit and substandard ICT equipment. This has resulted in environmental and health and safety issues, and has had a negative impact on the quality of network service delivery, as well as encouraging fraud in digital transaction services.





PROJECT OBJECTIVES

- 1. Ensure safe use of ICT devices on the market.
- 2. Assistance in reducing the number of counterfeit and substandard ICT devices in the region.
- 3. Provide affordable testing services for manufacturers in the region, resulting in lower prices on devices.
- 4. Establish testing facilities in the regions to test ICT devices for conformance.
- 5. Provide training and capacity building in the establishment and running of digital labs.
- 6. Develop harmonized ICT standards and mutual recognition agreements (MRAs) in the region.
- 7. Fulfil the objectives of Resolutions 47 and 76 and Pillars 1, 3 and 4 of the ITU C&I Programme.

- 1 2
- ITU to assess the laboratories in the region.
- ITU to adopt established labs in the region as centres for training and capacity building.
- 3
- ITU to support labs for accreditation.
- ITU to support Member States in the development of C&I regulations.
- 5
- Establish guidelines for active participation in the C&I Africa Group and for follow-up on the implementation of Pillar 3 (Capacity Building) and Pillar 4 (Assistance to Developing Countries) of the ITU C&I Programme.
- Sign cooperation agreements between labs and Member States.
- Organize capacity building, training and workshops at conformance labs for the region.

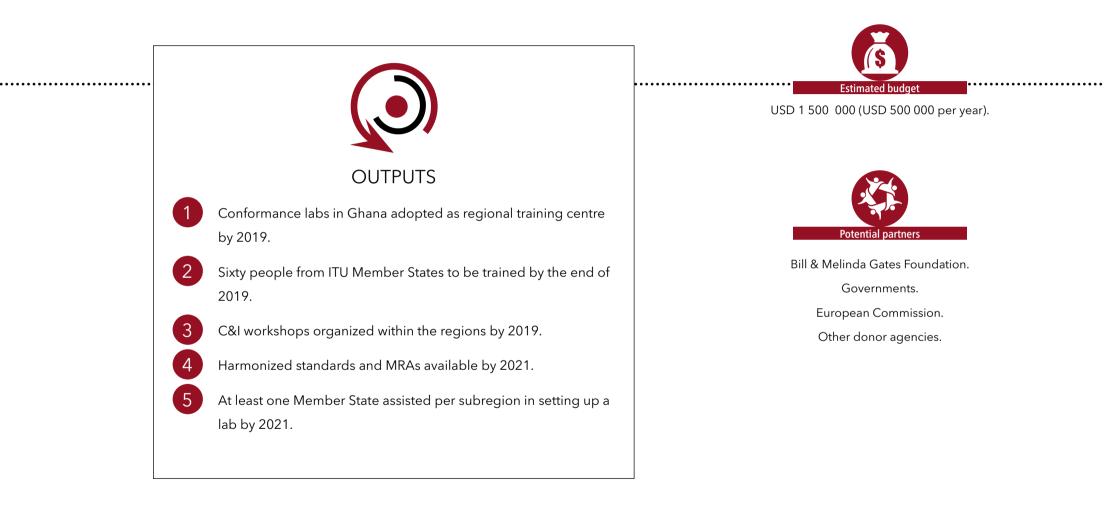
2020-2021 ACTIVITIES



5

Organize forums to harmonize standards for the region.

- Develop MRAs for Member States in the region.
- 3 Monit
 - Monitor and evaluate projects.
 - Provide technical assistance to Member States in their plans to establish labs.
 - Liaise with governments and secure commitment to provide necessary funding to establish labs.





Development of ICT incubators for start-up in Africa

BACKGROUND

- 1. Unfavourable environment (lack of support) for entrepreneurship among young people.
- 2. Limited integration capability in existing ICT enterprises.
- 3. Adaptation of ICT services to local context.
- 4. Relocation of certain services and innovations which could have been entrusted to young people to boost the economy.

2019

ACTIVITIES

5. Youth unemployment.



•••••



Conduct study of local market.

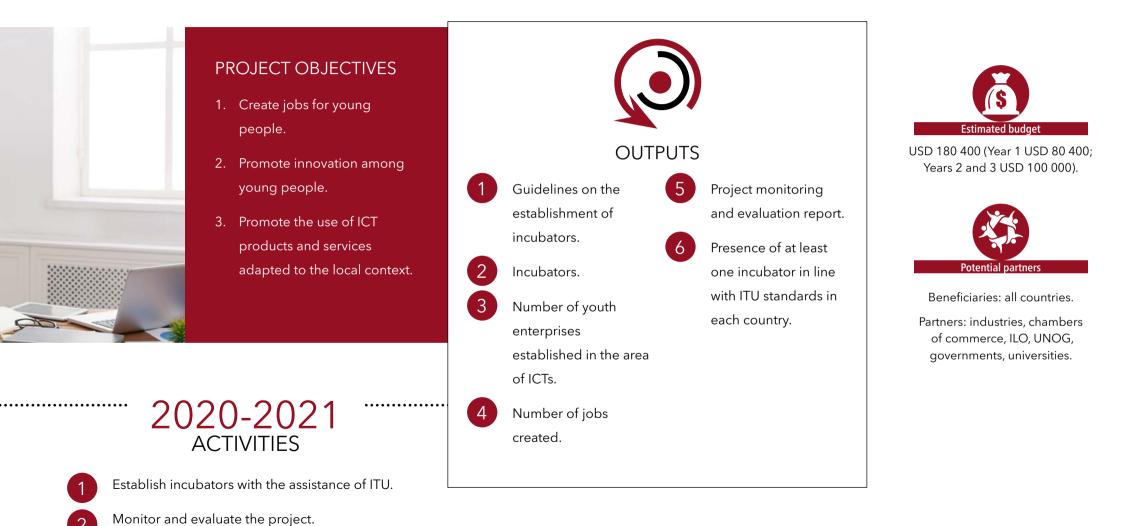
Identify best practices.



Develop guidelines.

Conduct studies for the design and siting of incubators in the different countries.

76



Promotion of digital inclusion and ICT accessibility in Africa

BACKGROUND

African countries all over the continent have made frantic efforts to ensure that their people are included in the digital ICT revolution. In reality, however, these efforts have not yielded any result. Factors contributing to poor ICT/digital accessibility include: little or no ICT/digital awareness; limited ICT/digital infrastructure; limited ICT training institutions, especially for persons with disabilities; and a lack of adequate funding. At this point in the progression of the digital economy and environment, all people and consumers should be included for a better life.



PROJECT OBJECTIVE

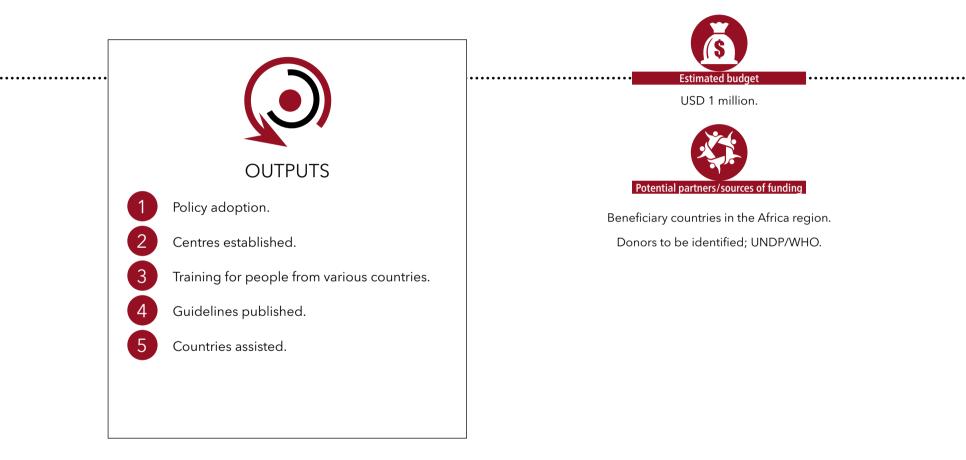
To establish a regional centre and national centres dedicated to the development of ICT training tools for persons with specific needs: access to websites, electronic documentation, applications, and mobile phones; and to promote awareness and greater empowerment of persons with specific needs in Africa: access to careers in the digital economy.



- Assess the current situation in the region, review best practices, conduct comparative studies and develop a model for the region; and analyse gaps that need to be addressed.
- Organize at least three regional capacity-building and 2 validation workshops; and develop/update guidelines on implementation plans, to be shared during validation workshops.

2020-2021 **ACTIVITIES**

- Establish guidelines to assist the membership 1 in developing national training centres for ICT accessibility.
- 2
 - Establish guidelines for active participation in the centres.
- Continue to assist countries in need.
- Monitor and evaluate the project.





Regional initiative

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

82

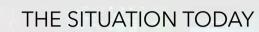








expert advice

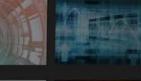


Almost all of the countries concerned use specific software and computerized tools for spectrum management. On the other hand, we note a lack of appropriate means for monitoring, and only 30 per cent of these countries are fully equipped with appropriate measurement tools.

Only 15 out of 44 sub-Saharan countries have achieved their digital broadcasting migration. Nine countries have planned to achieve their analogue switch-off (ASO) by the end of 2018, and 20 others before 2020, even if national strategies have been adopted and roadmaps defined.

The migration-specific database does not reflect the real situation on the ground, as some countries appear reluctant to update the database.













OBJECTIVE

To assist Member States in ensuring the transition to digital broadcasting and efficient and economical management of the radio spectrum and orbital resources.already exist, there may be a need to enhance their capacities.



EXPECTED RESULTS

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.

Assistance in elaborating financing models to ensure the necessary investments for the transition from analogue to digital.

Assistance to countries for the establishment of a sustainable ecosystem for the production and monetization of local content and channels.

Support for the development of spectrum-management plans at national, regional and global levels, including for the transition to digital broadcasting.

...... 5

4

Assistance in the use of tools to help developing countries improve international frequency coordination of terrestrial services in border areas.

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).

High-level regional workshop

BACKGROUND

The deadline for the migration from analogue television broadcasting to digital terrestrial television (DTT) was 17 June 2015. Owing to financial, political and leadership constraints, most African countries have either not yet started the process, or are at various stages of the implementation.





PROJECT OBJECTIVES

- Create the necessary awareness among African countries to migrate from analogue television broadcasting to digital terrestrial television.
- Engage African leadership on committing financial and human resources to the digital migration process.

Assess the current situation in the region, review best practices, conduct comparative studies, develop a model for the region and analyse gaps that need to be addressed.

2

Organize at least three regional capacitybuilding and validation workshops, during which guidelines on implementation plans are to be developed and shared.

2020-2021 **ACTIVITIES**

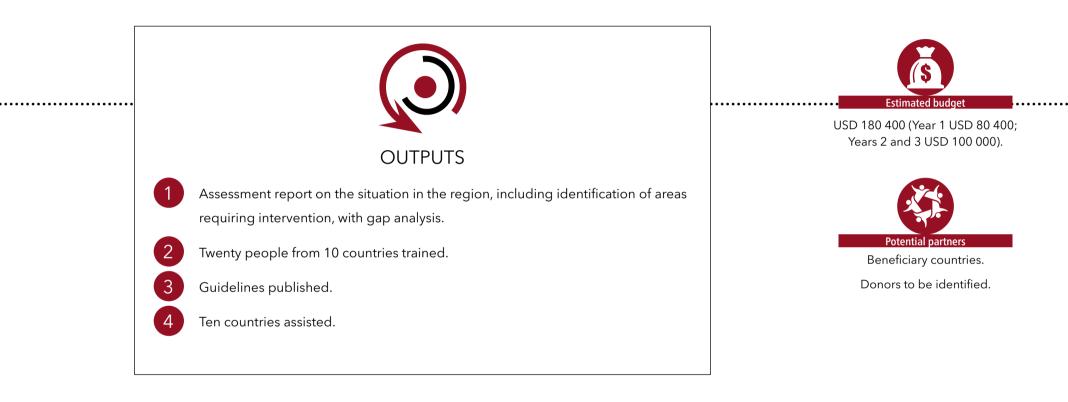
Establish guidelines to assist the membership in developing national economic strategies and policies based on validated models; establish guidelines for adoption; continue with gap analysis to identify challenges and strategies for addressing them.

Establish guidelines for active participation in the C&I Africa Group and for followup on the implementation of Pillar 3 (Capacity Building) and Pillar 4 (Assistance to Developing Countries) of the ITU C&I Programme; and promote the establishment of harmonized conformity and interoperability programmes, ICT standards and regional testing activities, as well as measures to combat counterfeit and substandard devices.

2

Continue to assist countries that require support.

Monitor and evaluate the project.



Equipment type approval for regional and national labs

BACKGROUND

The migration from analogue television broadcasting to DTT requires the adoption of new DTT receivers, i.e. set-top boxes and integrated digital TV sets. There is, however, no global standard for digital TV receivers, so there is a need for conformance requirements in the Africa region. East Africa, through EACO, has adopted DTT receiver standards, as have Southern Africa, through SADC, and West Africa, through ECOWAS. To ensure that receivers entering the African markets conform to the subregional standards, there is a need to develop the capacity to test sample devices and thus prevent the sale of substandard equipment.

90



PROJECT OBJECTIVE

To assist subregional bodies in establishing DTT receiver conformance testing laboratories in at least one country within each of the four subregions.

1	

- Identify a country in each region most suitable for the siting of a DTT conformance laboratory.
- Organize four regional capacity building workshops on DTT receiver conformance testing and related type approval issues.



Develop technical specifications for the regional conformance test labs.



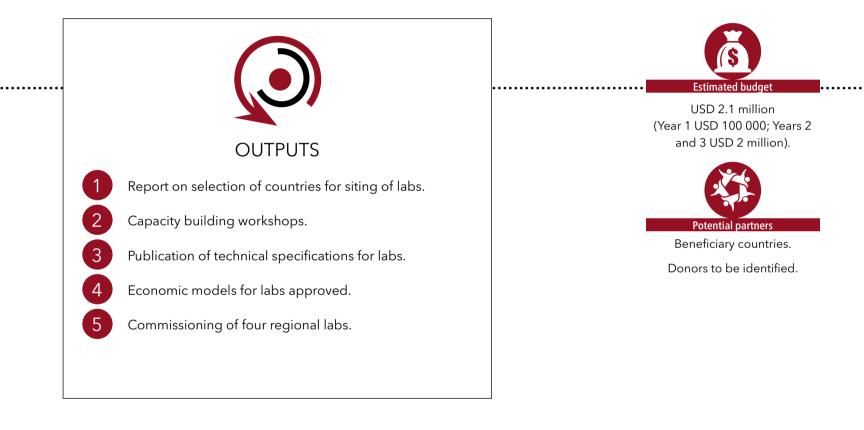
Develop a sustainable economic model for regional labs.





Establish four regional labs.

.....



PROPOSED PROJECT Spectrum planning and refarming

BACKGROUND

Most African subregions have suffered from problems with efficient spectrum planning and refarming, making spectrum management difficult to monitor. Following the allocation of sufficient spectrum for the deployment of specific networks, operators/service providers often use more than is allocated simply because of a lack of management tools and other resources, forcing regulators to work on the basis of assumptions. This gives rise to the challenge of combating warehousing, fraud and interferences, especially in border areas. Moreover, the emergence of new digital technologies, such as broadband, AI, IoT, ITS, etc., has led to increased spectrum use. Consequently, there is a serious need for the replanning and refarming of spectrum, which is a scarce resource.



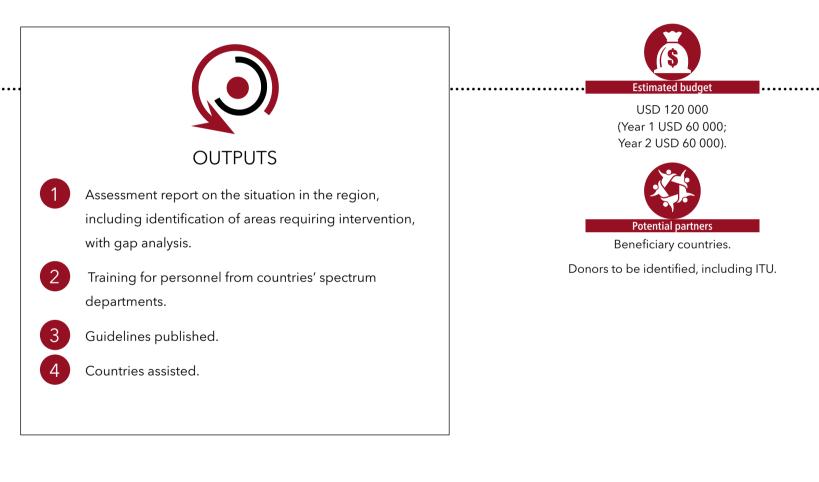
PROJECT OBJECTIVE

To assist affected countries in the Africa region in protecting existing services by strategizing, planning and researching efficient spectrum use.

- Assess the current situation in the region, review best practices, conduct comparative studies and develop a model for the region; and analyse gaps that need to be addressed.
- Organize at least three regional capacity-building and 2 validation workshops; and develop/update guidelines on implementation plans, to be shared during validation workshops.

2020-2021 **ACTIVITIES**

- Establish guidelines to assist the membership in the development of national frequency allocation tables and policies based on validated models; establish guidelines for adoption; and continue with the gap analysis to identify challenges and strategies for addressing them.
- Establish guidelines for active participation in the ITU-R study groups 2 and Pillar 4 (Assistance to Developing Countries) of the ITU C&I Programme; and promote the establishment of harmonized planning and refarming and spectrum monitoring systems at regional and national levels.
 - - Continue to assist countries in need.
 - Monitor and evaluate the project.



Development of business plan for manufacture or assembly of television equipment (TV sets, set-top boxes, etc.) in the region

BACKGROUND

Sub-Saharan African countries, with a total population of approximately 1 billion, import most of their digital television equipment (TV sets, set-top boxes, etc.) from China, giving rise to a number of challenges, including stress on local currencies and the high cost of equipment.

As digital migration is compulsory, all African countries will at some point finally have to migrate in order to draw on the digital dividend in improving broadband by deploying IMT.

There is thus a need for affordable, home-grown solutions to meet Africa's challenges.



PROJECT OBJECTIVE

To assist countries in the Africa region in developing homegrown solutions in the manufacture and assembly of DTT equipment and adoption of common technical standards for the Africa region.

- Assess the current situation in the region, review best practices, conduct comparative studies and develop a model for the region; and analyse gaps that need to be addressed.
- Organize a regional forum for the exchange of countries' experiences; and engage entrepreneurs and other stakeholders.
- Assist in the drafting of the technical, business and feasibility plan on DTT equipment manufacture or assembly in the region.
- Conduct, for each country, an evaluation of the proposed technical, business and feasibility plan regarding DTT equipment manufacture or assembly in the region.

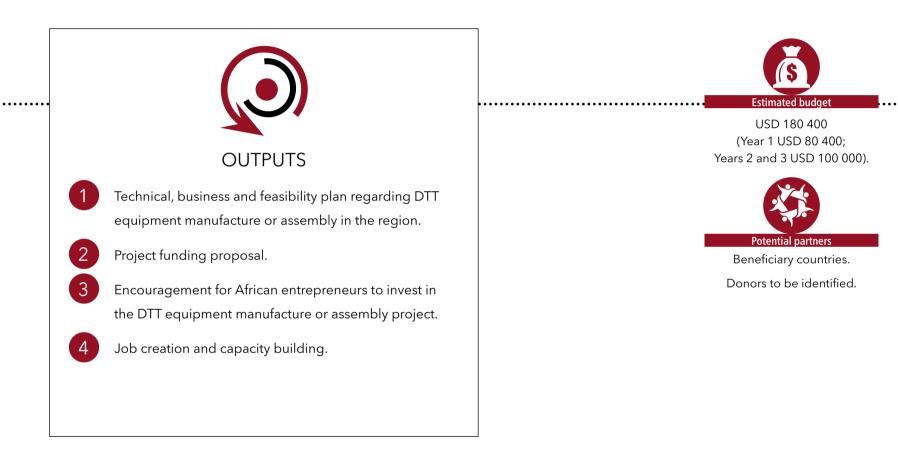
2020-2021 ACTIVITIES

1

Organize a regional forum to approve the proposed draft technical, business and feasibility plan on DTT equipment manufacture or assembly in the region.



Mobilize funding for DTT equipment manufacture or assembly in the region.



h

Regional cross-border frequency coordination meeting

BACKGROUND

Countries in the Africa region are facing difficulties in the management and coordination of frequencies along their common borders. Various organizations, including ITU, have helped countries to establish agreements and coordination mechanisms among themselves. Awareness and capacity building in the use of such mechanisms are improving the situation in the region.



Border Crossing

PROJECT OBJECTIVE

To assist countries in the Africa region in improving crossborder frequency coordination through the use of existing tools, and establishment of coordination mechanisms.

- Assess the current situation in the region, review best practices, conduct comparative studies and develop a model for the region; and analyse gaps that need to be addressed.
- Organize at least three regional capacity-building and validation workshops; and develop/update guidelines on implementation plans, to be shared during validation workshops.

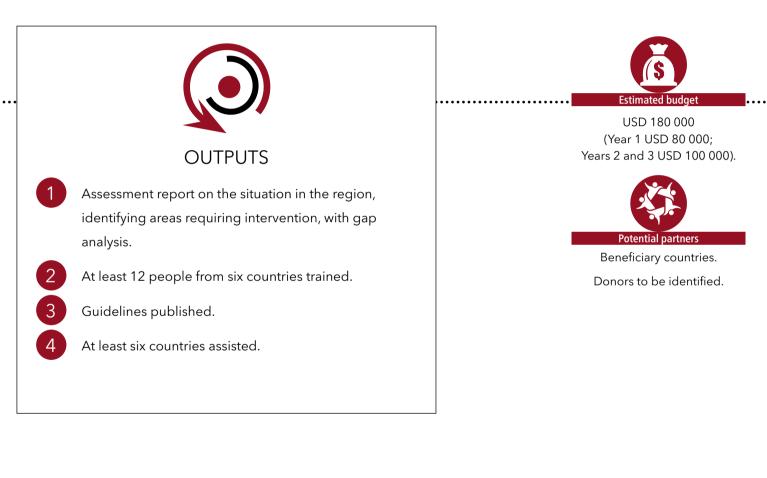


- Establish guidelines to assist the membership in developing national economic strategies and policies based on validated models; establish guidelines for adoption; and continue with the gap analysis to identify challenges and strategies for addressing them.
- Establish guidelines for active participation in the C&I Africa Group and for follow-up on the implementation of Pillar 3 (Capacity Building) and Pillar 4 (Assistance to Developing Countries) of the ITU C&I Programme; and promote the establishment of harmonized conformity and interoperability programmes, ICT standards and regional testing activities, as well as measures to combat counterfeit and substandard devices.
- Continue to assist countries in need.

4

2

Monitor and evaluate the project.





International Telecommunication Union Telecommunication Development Bureau Place des Nations CH-1211 Geneva 20 Switzerland www.itu.int ITU REGIONAL OFFICE FOR AFRICA Gambia Rd. Leghar ETC Bldg 3rd Floor P.O. Box 60 005 Addis Ababa, Ethiopia Tel.: +251 11 551 4977/4855/8328 Fax: +251 11 551 7299 E-mail: ITU-RO-Africa@itu.int

© ITU 2019

All rights reserved. No part of this publication may be reproduced, by any means whatsoever, without the prior written permission of ITU.

Published in March 2019