International Telecommunication Union

# Your Partner for ICT Development

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# FOREWORD

Information and communication technologies (ICTs) have reduced the ageold barriers of time and distance, and have become key drivers of social and economic progress. The enduring mission of the International **Telecommunication Union** (ITU) is to connect all the world's inhabitants to telecommunications and spread the enormous benefits unleashed by the digital revolution.

Leaders at the World Summit on the Information Society (WSIS) recognized the potential to leverage the vast potential of ICTs to accelerate the achievement of the 2015 United Nations Millennium Development Goals. To help achieve these goals, we need to work together to bring the benefits of ICT to all parts of the world, especially the most remote, underserved communities. We also have to strengthen emergency communications, especially

in these vulnerable areas, to better prepare for disasters and assist in rehabilitation and relief. And, we must build confidence in the online world by enhancing cybersecurity — as more and more social and economic activities rely on the availability and dependability of ICT networks.

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On behalf of the entire ITU team, I invite all Member States, Sector Members and other partners to join us in working to achieve our common goals.

> Dr Hamadoun I. Touré Secretary-General International Telecommunication Union



# WELCOME TO ITU-D

Through the World Telecommunication Development Conference (WTDC), the ITU-D membership has established a broad mandate and comprehensive development agenda to help realize the goals set out by WSIS. Our ambition is to ensure that everyone shares the benefits of the world information society.

Spreading connectivity and knowledge is at the heart of achieving the internationally agreed development goals. Building human, regulatory,

institutional and business capacities is a prerequisite to overcome the ICT gaps that persist in developing countries. The magnitude of the challenge is such that it can only be met by building partnerships with all stakeholders. The diverse membership of ITU-D - which includes more than 300 partners from governments, regulatory, authorities ICT/TELECOM industry and regional/ international development organizations — enables the Sector to play a central role in addressing these gaps.

I, as the Director, together with my entire team am strongly committed to the mandate established by our broad membership. We have undergone a significant restructuring to ensure that we remain focused on our strengths and are well-equipped to meet the challenges ahead. As an executing agency of the United Nations for the implementation of telecommunication infrastructure projects, we serve by facilitating multi-stakeholder partnerships and mobilizing resources to help implement WSIS and WTDC commitments, in all regions.



Recognizing the enormous task before us, I extend an open invitation to all potential partners to work with ITU-D to help translate these shared goals into concrete results on the ground and improve people's lives around the world.



# ITU-D MISSION

The ITU Telecommunication Development Sector (ITU-D), one of the three Sectors of the International Telecommunication Union (ITU), was established to help spread equitable, sustainable and affordable access to telecommunications, as a means of stimulating broader social and economic development. The Sector works with partners from governments and industry to mobilize the technical, human and financial resources needed to develop ICT networks and services, and connect the unconnected.



Held every four years, the World Telecommunication Development Conference (WTDC) is a high-level platform for Member States to set development priorities, strategies and action plans and guide the work of ITU-D. Before every WTDC, preparatory conferences are held in each of the five ITU-D Regions.

For more information, visit: www.itu.int/ITU-D/wtdc06.

In between World Conferences, the Telecommunication Development Advisory Group (TDAG) advises the Director of the Telecommunication Development Bureau (BDT) regarding the implementation of the WTDC Action Plan, including issues related to the budget and the operational plan of ITU-D. TDAG has a Working Group on Private Sector Issues to solicit Sector Member input and help identify and promote partnership opportunities between governments and industry, which are vital for the implementation of ICT projects.

For more information, visit www.itu.int/ITU-D/tdag.





ITU-D also has two Study Groups mandated by WTDC, which provide a neutral forum for governments and industry to address priority issues for the Sector. Study Group 1 deals with "Telecommunication development strategies and policies" while Study Group 2 deals with "Development and management of telecommunication services and networks and ICT applications". Member States, ITU-D Sector Members and Associates can participate in the Study Groups and submit contributions. For more information, visit: www.itu.int/ITU-D/study\_groups.

# The Telecommunication Development Bureau (BDT)

BDT is the executive arm of ITU-D, responsible for implementing projects so as to facilitate and enhance telecommunications development by offering, organizing and coordinating technical cooperation and assistance activities. These activities fall within two major streams, Policies and Strategies and Projects and Initiatives. They concern a wide range of issues: the regulatory and market environment; market information and statistics; human capacity building; special initiatives, telecommunication technologies and network development; special programmes for least developed countries (LDCs), small island developing states (SIDs) and emergency telecommunications; ICT applications and cybersecurity; and project implementation.

# **WSIS** implementation

As well as implementing the Action Plan established by WTDC, BDT is called on to play a key role in the Plan of Action of the World Summit on the Information Society (WSIS). Held in two phases, the first in Geneva in 2003 and the second in Tunis 2005, the Summit set out a vision of a global information society where the benefits of ICTs are shared by all. The ongoing implementation process aims to make this vision a reality by 2015.

The WSIS Plan of Action assigned ITU a leading facilitation role in the multi-stakeholder implementation process, including the lead in key areas including the development of ICT infrastructure (Action Line C2) and building confidence and security in the use of ICTs (Action Line C5). In addition, ITU is cofacilitating the implementation in major areas, such as capacity building (Action Line C4) and establishing an enabling environment (Action Line C6).

For more information, visit www.itu.int/wsis

#### WSIS Stocktaking

During the WSIS process, stakeholders called upon ITU to establish a publiclyaccessible stocktaking database for WSIS-related implementation activities. The objective of the WSIS stocktaking exercise is to provide an effective tool for exchanging information on projects that foster the development of the information society. All WSIS stakeholders are encouraged to continue to contribute information to this public database.

For more information, visit www.itu.int/wsis/stocktaking





# ITU-D KEY ACTIVITIES

# **Regulatory & market environment**

The focus of ITU-D's work in the area of regulatory reform, economics and financing is on assisting Member States and national regulatory authorities in developing and implementing an enabling environment that fosters a transparent, pro-competitive and predictable policy and legal and regulatory framework, to stimulate investment and promote universal, ubiquitous and affordable access to ICTs. Targeted activities, events and training opportunities are carried out to foster cooperation among national regulatory authorities around the globe and to encourage constructive dialogue between decision-makers, regulators and key stakeholders including the private sector, investors, financial institutions, and consumers.

#### **ICT Regulation Toolkit**

In order to respond to developing countries' needs, ITU and infoDev, have developed the free hands-on, web-based ICT Regulation Toolkit. This is an evolving online resource for sharing in-depth information about a full range of best regulatory best practices to assist regulators in designing effective regulation to harness the latest technological and market advances. To build on the success of the Toolkit, further efforts are underway to leverage its valuable content so as to provide more training opportunities for regulators.

For more information, visit: www.ictregulationtoolkit.org



These activities include:

- the annual ITU Global Symposium for Regulators (GSR), firmly established as the global venue for regulators from around the world to share their views and experiences;
- the Global Regulators' Exchange (G-REX), a unique on-line resource for regulators and policy makers to debate and discuss pressing issues;
- the ICT Regulation Toolkit, an on-line resource for best regulatory practices
- Trends in Telecommunication Reform, an annual flagship publication which provides in-depth analysis on various regulatory issues;
- Tools and methodologies to help Members calculate the costs of providing telecommunication services, interconnection, access deficit charges, etc.

For more information, visit www.itu.int/ITU-D/treg and www.itu.int/ITU-D/finance

# **Market information & statistics**

With the growing recognition of ICTs as a driver for social development and economic growth, there is a need for reliable, comprehensive and comparable statistics to support government and industry decisions. BDT monitors, compares and analyzes regional/national ICT developments. The statistics and indicators collected by BDT are a key tool for tracking progress towards the achievement of the ten connectivity goals of WSIS and the Millennium Development Goals.

ITU is recognized all over the world as the leading provider of timely and comprehensive ICT statistics. ITU and its members use the statistics to analyze trends in national, regional and international ICT developments. These trends are disseminated in a variety of reports, the foremost being the World Telecommunication Development Report. Other publications include The World Telecommunication Development Report (WTDR), features trends in national, regional and international ICT development. Each edition of the report explores a specific theme in each edition. Past themes have included mobile communications, universal access and trade in telecommunications. In addition to the analysis, the report contains some 20 statistical tables providing comparisons between countries and regions. WTDR is widely recognized as an authoritative source for both its analysis and statistics.

For more information, visit www.itu.int/ict



- The Yearbook of Statistics now in its 33rd edition, the yearbook provides the most authoritative source of data about the evolution of the telecommunications sector available anywhere.
- Measuring the Information Society 2007- this report, includes the ICT Opportunity Index, which benchmarks 183 countries
- The World Telecommunication Indicators database contains time series data and annual data from 1960 for around 200 economies.

The ITU's online portal "ICT Eye" is unique in the world as a "one-stop-shop" for telecommunication and ICT data collection and dissemination. This integrated platform tracks the development and use of ICTs. It allows users to access the latest trends and developments in the ICT sector with a click of a mouse. The ICT Eye offers access to ICT indicators and statistics, regulatory and policy profiles, national tariff policies, operator information, financial and scientific institutions, WSIS stocktaking, and more. This information is crucial for the evaluation and development of ICT policies at national, regional and international levels.

For more information, visit www.itu.int/ITU-D/icteye



# Human capacity building

Human capacity building and ICT literacy are essential to fully realize the benefits of the information society. In this area, ITU-D assists developing countries to strengthen their human, institutional and organizational capacities. ITU-D works to facilitate the transition towards more efficient and sustainable ICT policies and their implementation in a dynamic ICT environment. Through regional centers of excellence, a worldwide network of Internet training centers and the ITU e-learning centre,

ITU-D is helping create an ICT-literate workforce, addressing the needs of policy-makers and regulators, as well as operators and service providers, by using an appropriate mix of e-learning, information technologies and traditional training methodologies.

Close to 20,000 people have benefited from this training in recent years, with an average of 150 courses a year being offered, using a blend of face-to-face and online methods.

For more information, visit www.itu.int/ITU-D/hrd

#### **Global Training Networks**

The ITU Internet Training Centres Initiative aims to help developing countries meet their human resource requirements for skilled Internet and new economy professionals. This is done by establishing computer and network training programmes for students in existing training and educational institutions in various regions. The Centre of Excellence Network on the other hand, aims to strengthen capacity among ICT professionals within each region with a focus on high-level expertise in telecommunication policy, regulatory issues, corporate management and advanced telecommunication technology.



# **Telecommunication technologies and network development**

Telecommunication infrastructure plays a central role in achieving broader development and connectivity goals and enabling an inclusive information society. ITU-D assists Member States and Sector Members in developing countries to maximize their use of new technologies by providing extensive opportunities for the transfer of technological knowledge and by providing assistance for telecommunication network infrastructure development. The overall aim is to make possible the development of fully interconnected and interoperable networks to achieve global connectivity by promoting innovation.

The main activities include:

- development, maintenance and back–up support and training for developing countries on spectrum management
- development of technology-oriented material for training courses, seminars and workshops in the domain of telecommunication networks and broadcasting
- development guidelines and manuals for assisting telecom operators, policy makers and regulators in the domain of network planning
- direct assistance to developing countries for network development, broadcasting and spectrum management

For more information, visit www.itu.int/ITU-D/tech

Spectrum management and network planning tools

ITU-D has developed a tool under the brand name «Spectrum Management System for Developing Countries» (SMS4DC) This system is intended to assist administrations from developing countries to better plan and manage the use of their radio spectrum and to establish their national frequency management system. ITU-D is also assisting developing countries in network planning by using tools under partnership agreements with specialized companies.

For more information, visit www.itu.int/ITU-D/tech

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# **Special initiatives**

The World Telecommunication Development Conference adopted a set of special initiatives to give focused telecommunications and ICT assistance for groups with particular needs, including women, youth, indigenous peoples and communities, people with disabilities, and communities living in underserved areas.

For more information, visit www. itu.int/ITU-D/special-initiatives

#### Youth Programme

ITU-D works with partners to help young people get ICT skills and job experience. The Youth Education Scheme provides scholarships to qualified young people from least developed countries and developing countries so they can access training in telecommunications or related fields. The Youth Incentive Scheme offers selected young graduates of telecommunication studies or related fields the chance to work with Member States and Sector Members.

For more information, visit www.itu.int/ITU-D/youth



# **Project implementation**

In order to strengthen the implementation and execution of projects on ICTs for development at a national, regional and global level, the ITU has a dedicated team of project specialists who can be reached at projects@itu.int

Based on local needs, the BDT team formulates project documents with costbased analysis to achieve development goals, and works with partners together to ensure a coordinated and sustainable project deployment.

The ITU has longstanding years of experience in the execution and implementation of multi-million dollar projects in ICTs for development. The types of medium and large-scale projects that are undertaken include communication infrastructure development, capacity building, policies and regulation, e-services, etc. By having in-house expertise in the formulation of relevant project documents, building of innovative partnerships for effective resource mobilization, project management, monitoring and evaluation within the Projects Unit as well as supporting units to manage international procurement, contracts, financial and administrative support, the ITU is well positioned to deliver ICTs for Development projects to achieve the Millennium Development Goals. Currently, the Union is focusing on large-scale initiatives, including 25 regional initiatives.



# Special programme for LDCs, SIDS & emergency telecommunications

The Special programme for least developed countries (LDCs), small island developing states (SIDS) and emergency telecommunication delivers targeted and timely assistance to countries marginalized from the information society and most vulnerable to natural disasters. The programme has two main priority areas. First, it aims to help bridge the urbanrural digital divide by making ICT services and applications more affordable and more easily accessible. Second, it seeks to assist countries to mitigate the impact of disasters through the integration of telecommunications in disaster preparedness and the creation of rapid response capabilities for disasters and emergency telecommunications.

#### This is done by

- ensuring disaster reduction strategies are incorporated into telecom network development planning and encouraging the establishment of early warning systems/ networks with multi-hazard capability.
- helping developing countries with emergency telecommunications as part of response efforts following disasters, and to that end, rapidly deploying satellite-based and wireless equipment to enhance the response and relief efforts when disasters strike.
- assisting countries in reconstructing and rehabilitating telecommunications infrastructure destroyed by disasters.
- working towards the establishment of standards-based monitoring and worldwide interoperable early-warning systems linked to national and regional networks and facilitating emergency disaster response all over the world, particularly in high-risk regions.

For more information, visit www.itu.int/ITU-D/ldc



# **ICT applications & cybersecurity**

ITU-D has a dedicated programme to assist developing countries in bridging the digital divide by advancing the use of ICT-based networks, services and applications and promoting cybersecurity. Other priority activities include contributing to Internet development and multilingualization, deployment of community telecentres, and development of national e-strategies. Recognized as a key pillar in enabling a global information society, cybersecurity is a strategic objective of ITU, where it plays the leading role in facilitation and implementation of WSIS Action Line C5: building confidence and security in use of ICTs.

The integration of ICTs into almost every sphere of human activity has increased the dependence of individuals, organizations and governments on globally interconnected networks. While some Member States are well advanced in their national cybersecurity strategies, others are only just starting to consider measures to protect and respond to threats against ICT infrastructures. Developing countries with limited human, institutional and financial resources face particular challenges in formulating effective security policies. In response, ITU-D has developed a comprehensive work programme to collaborate with partners from the public and private sectors to assist developing countries in elaborating and implementing national strategies for cybersecurity and critical information infrastructure protection (CIIP).

For more information, visit www.itu.int/ITU-D/cyb



ITU's regional presence is designed to enable the Union to work as closely as possible with its Members and to tailor ITU activities to meet the ever-increasing and diverse needs of the world's developing and least developed countries. ITU manages a network of twelve field offices in five regions: Africa, the Americas, the Arab



States, Asia and the Pacific and Europe and the CIS countries. ITU field offices provide support for all activities of the Union, helping implement its regional initiatives as well as strategic and policy objectives through direct, sustained contact with national authorities, regional ICT organizations and other relevant bodies. They also assist developing and least developed countries to meet their ICT development goals. In addition to providing technical and logistical support to development activities, field offices fulfil the basic functions of the Development Sector as a specialized and executing agency, resource mobilizer and information centre.

For more information, visit http://www.itu. int/net/ITU-SG/regional.aspx

# BE AN ITU-D PARTNER!

ITU-D provides a special one-stop service for governments and industry interested in forging new development partnerships, by identifying win-win opportunities for collaboration and linking external partners with experienced ITU project specialists to ensure successful project implementation. For more information, contact ppm@itu.int.



#### Connect the World

Connect the World is a global multi-stakeholder partnership platform for ICT development comprising governments, ICT companies, development agencies, international and regional organizations and civil society. Through this initiative, ITU is working with partners in each region and globally to mobilize the human, financial and technical resources required to implement the connectivity goals of WSIS, namely to "connect the unconnected by 2015." Connect the World is predominantly focused on underserved communities and aims to achieve this mission by showcasing ICT development efforts, tracking progress, identifying pressing needs and opportunities for collaboration, and stimulating new partnerships to support project implementation.

For more information, visit www.itu.int/partners

ITU-D has more than 300 sector members around the world. With a membership encompassing telecommunication policy-makers and regulators, network operators and service providers, equipment manufacturers, hardware and software developers, regional and international development organizations, research and training institutes and financing institutions, ITU's strategic directions and activities are determined by governments and shaped by industry needs. Membership has more than doubled in a period of 10 years. By becoming a sector member, you can benefit from the impartial, universal and global scope of ITU-D.

# BECOME AN ITU-D SECTOR MEMBER!

Members recognize the value of participating in ITU's activities including various study groups and forums where they can network with key representatives from governments, industry and financial institutions and engage in high-level dialogue on issues that affect their business. You can be associated with the organization and co-sponsorship of seminars and workshops, or provide experts, lecturers and training facilities that are pertinent to your strategy. Become an ITU-D sector member, and enhance your visibility and networking potential, thus bringing additional value to your business projects.

For more information on partnership and membership opportunities with ITU-D, contact

itu-d\_membership@itu.int or visit www.itu.int/ITU-D/membership

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