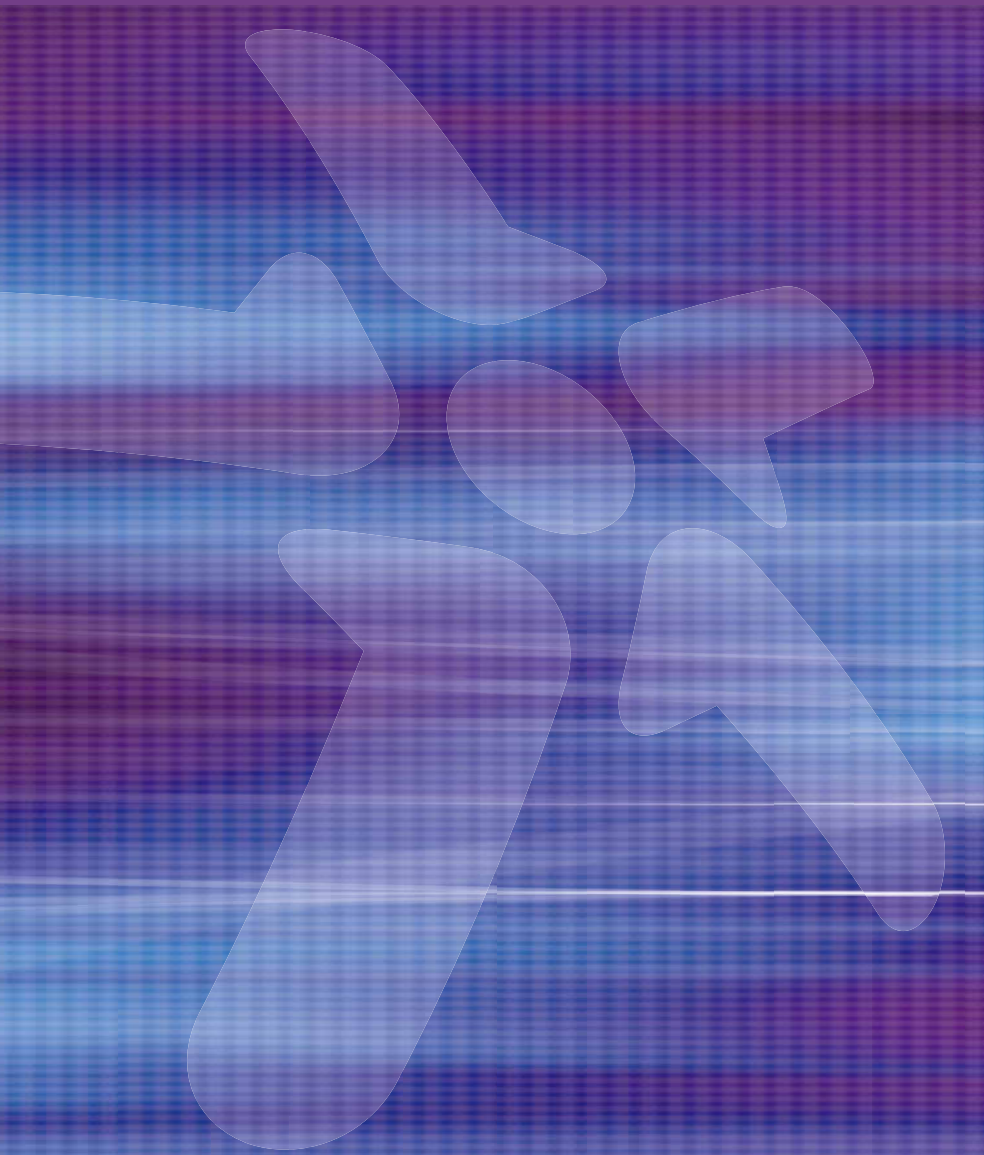
International Telecommunication Union

ITU Building the Information Society



International Telecommunication Union

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Message from Dr Hamadoun I. Touré Secretary-General of the International Telecommunication Union

The World Summit on the Information Society set out a clear vision to harness the vast potential of information and communication technologies (ICT) to achieve the development aspirations of all the world's inhabitants. Recognizing the importance of ICT as valuable assets for economic growth, world leaders expressed their strong political commitment towards building an inclusive, people-centred and development-oriented information society.

Organized by ITU, the Summit was an important landmark in the global effort to eradicate poverty and achieve the UN Millennium Development Goals (MDG) by 2015. With a mere seven years remaining, I see our work at ITU, the leading UN agency for telecommunications and ICT, as a catalyst in accelerating economic growth and attain the MDG targets on schedule.

We look forward to working together with governments, the United Nations system, the private sector and the wider ICT community to make the Information Society a reality. Together with UNDP and UNESCO, ITU will take the lead in facilitating the multi-stakeholder process to implement the WSIS Action Lines and coordinate the work of the United Nations Group on the Information Society (UNGIS).

We are faced with the ambitious challenge of utilizing the instruments of information and communication to empower people everywhere to improve their quality of life, ensure sustainable development and create a more peaceful, just and prosperous world. Along with Deputy Secretary-General Houlin Zhao, Director of the Radiocommunication Bureau Valery Timofeev, Director of the Telecommunication Standardization Bureau Malcolm Johnson, and Director of the Telecommunication Development Bureau Sami Al-Basheer, I invite you to participate fully in our common endeavour and mobilize every effort to use the ICT tools at our disposal to build the Information Society and contribute to overall development and progress.

Hamadoun Touré
Secretary-General
International Telecommunication Union

Who we are, What we do

A United Nations specialized agency with the mandate to help the world communicate

The purpose of the Union as set out in its Constitution and Convention is:

- To promote the extension of the benefits of the new telecommunication technologies to all the world's inhabitants
- To promote, at the international level, the adoption of a broader approach to the issues of telecommunication in the global information economy and society, by cooperating with other world and regional organizations and those non-governmental organizations concerned with telecommunications

Communication has always been a human need. At ITU, we believe it is also a human right. As the United Nations agency for telecommunication, it is our mission to bring the benefits of information and communication technologies (ICTs) to all citizens.

To carry out its mandate, ITU has a number of key roles, including management of the radio-frequency spectrum for wireless services and development of global telecommunication standards, activities that are shaping the communication networks of today and tomorrow. ITU also has a number of programmes that promote the growth of ICTs in emerging economies and developing countries.

ITU's activities are carried out by three core sectors: The Radiocommunication Sector (ITU–R), the Telecommunication Standardization Sector (ITU–T) and the Telecommunication Development Sector (ITU–D).

A unique platform for public/private sector partnership

In today's fast-moving environment, ITU provides governments and private companies with a unique opportunity to make an important and valuable contribution to the rapidly changing telecommunication and ICT sectors.

ITU is the United Nations specialized agency within which governments and the private sector work together to coordinate the operation of telecommunication networks and services and advance the development of communication technologies. Today, ITU is composed of 191 Member States and nearly 700 Sector Members and Associates.

ITU's membership encompasses telecommunication policy-makers, regulators, network operators, equipment manufacturers, hardware and software developers, regional standards bodies, telecom organizations and financing institutions.

An experienced agency to help manage the world's ICT development

ITU has built up a wealth of experience and expertise. Its recognized actions at the global level and its support to regional and local initiatives make ITU a unique executing and implementing agency.

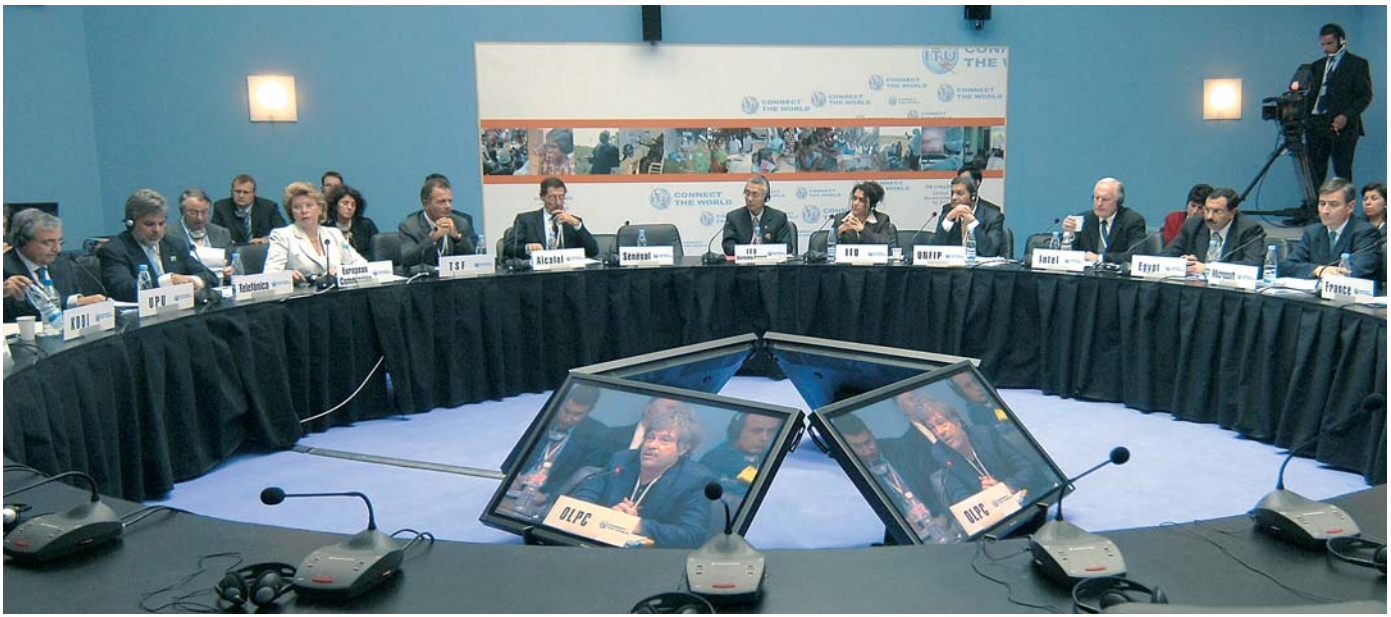
For more information:
www.itu.int
www.itu.int/aboutitu/

ITU as WSIS organizer

As the UN agency in charge of telecommunications and other information and communication technologies, ITU played the lead role in the organization of the World Summit on the Information Society (WSIS).

The decision of the 1998 ITU Plenipotentiary Conference that led to the holding of a Summit on the Information Society was endorsed by the UN General Assembly. It called for the participation of Member States at the highest level and for UN specialized agencies' strong involvement in the preparatory process, as well as in the Summit itself.

In addition to serving as the Secretary-General of



the Summit, the Secretary-General of ITU chaired the Executive Secretariat of the Summit as well as the HLSOC (High-Level Summit Organizing Committee), which comprised 28 UN agencies.

ITU coordinated the preparation of the WSIS stocktaking database, which provides a global platform for the presentation, exchange and dissemination of information on activities promoting the development of the Information Society at the local, national, regional and global levels. By the second phase of the Summit, more than 2600 entries were in the database.

ITU also launched the "Golden Book" project in October 2005. The Golden Book focused on new projects conceived or undertaken during the Tunis Phase of WSIS, as well as on new financial commitments for activities related to WSIS implementation. At the end of January 2006, the Golden Book had registered more than 350 entries.

Key ITU projects launched during WSIS

The ITU Plenipotentiary Conference also stressed the importance of ITU as an active and relevant contributor to the WSIS process. The Summit was an opportunity for ITU to highlight its activities and to launch new initiatives.

During the first phase of the Summit in Geneva, ITU announced more than 15 new partnerships between governments, industry, international organizations and universities. Theses partnerships addressed elements critical to the development of an information society for all including capacity building, distance learning, telemedicine, infrastructure development and e-government.

Leading to Tunis, the Union organized or co-organized thematic meetings on Internet Governance, Measuring the Information Society, Ubiquitous Network, Multi-stakeholder Partnerships for Bridging the Digital Divide and Cybersecurity. The Tunis Summit was a platform for the Union to demonstrate and foster partnerships in bridging the Digital Divide.

Connect the World Initiative

«Connect the World» was launched in 2005 by ITU and 22 founding partners, within the context of the World Summit on the Information Society. It is a multi-stakeholder initiative that aims to help expand access to information and communication technologies (ICTs) to the estimated 800 000 villages and one billion people worldwide without access to ICTs.

By showcasing ICT development efforts in support of WSIS connectivity goals, and by tracking progress and identifying pressing needs and opportunities for collaboration, «Connect the World» is helping generate the momentum required to "connect the unconnected by 2015". The initiative now comprises more than 50 partners from government, industry/private sector, international/regional organizations and the civil society.

For more information:
www.itu.int/wsis/stocktaking/
www.itu.int/wsis/goldenbook/
www.itu.int/ITU-D/hrd/itci/
www.itu.int/partners/
www.itu.int/itu-wsis/2005/summit.html

ITU in WSIS output documents

ITU's strong engagement in the WSIS process increased its visibility as a key entity in building the Information Society, and the Union was entrusted with many new tasks by world leaders in the output documents.

ITU is mentioned 28 times in the four output documents. ITU's expertise is recognized and further work is encouraged in the field of International Internet Connectivity, Spam, Internet Governance, the development of indicators to measure the Information Society and the "Connect the World" Initiative. ITU was also asked to continue the stocktaking exercise.

The Tunis Agenda for the Information Society calls for a strong ITU role in the post-WSIS implementation mechanisms. It assigns the following tasks to ITU:

- Coordinator of Action Lines, together with UNESCO and UNDP
- Sole moderator/facilitator of Action Lines C.2 (Infrastructure) and C.5 (Security)
- Co-moderator/facilitator of Action Lines C.1 (Governance and ICTs for development), C.4 (Capacity building), C.6 (Enabling environment), C.7 (ICT Applications) and C.11 (International and regional cooperation).
- Leading agency in the UN Group on the Information Society created within CEB in order to coordinate inter-agency implementation.

It is expected that the WSIS outcomes will guide the Union in the years to come.

For more information:
www.itu.int/wsis/

WSIS: A unique Summit in two phases

The World Summit on the Information Society (WSIS) was the first gathering of global leaders to address the issues of the Information Society, including the use of ICTs for development, cybersecurity, Internet governance, affordable access to communications, infrastructure, capacity building and cultural diversity.

The Geneva Summit

The first phase of the Summit took place in Geneva on 10-12 December 2003. Close to 50 Heads of State or Government and Vice-Presidents attended the Summit. More than 11 000 delegates participated in the deliberations.

The first phase was also the occasion for more than 300 Summit-related events in Geneva, including major meetings organized by many different UN agencies and other regional and international organizations.

The outputs from the first phase are contained in two documents: a Declaration of Principles and a Plan of Action.

The Declaration defines characteristics of the Information Society that should or must ensure its conformity with principles of equality, human rights and social development.

More specifically, the Declaration sets forth eleven key principles. Key among them are the importance of infrastructure as an essential foundation of the Information Society, the need for affordable access to information and knowledge, capacity building, enabling environment, building confidence and security in the use of ICTs, e-applications and international and regional cooperation.

The Plan of Action sets specific targets for connectivity and ICT deployment to be achieved by 2015, alongside the Millennium Development Goals (MDGs). It also sets 11 Action Lines that list activities that must be taken to harness ICTs potential to contribute to human progress.

Indicative targets to be achieved by 2015 as set in the Geneva Plan of Action

WSIS Commitment	*Comments*	*Prospects for achieving goal by 2015*
a) to connect villages with ICTs and establish community access points	There are around 2.7 million "villages" worldwide, of which around three-quarters already have telephone service. However, coverage of community access points is not so widespread and, in many cases, there is no formal measurement of their number	Good prospects for connecting all villages by 2015. Poor prospects for putting community access points in each village
b) to connect universities, colleges, secondary schools and primary schools with ICTs	Data are not widely available on a consistent basis, but for countries where data is available, around 100% coverage of universities and colleges, 95% of secondary schools and 90% of primary schools are ICT-connected	Very good prospects for connecting all universities, colleges and secondary schools by 2015. Good prospects for primary schools
c) to connect scientific and research centres with ICTs	Assuming that most scientific and research centres are associated with universities, then around 100% coverage is already achieved	Excellent prospects for connecting all scientific and research centres by 2015
d) to connect public libraries, cultural centres, museums, post offices and archives with ICTs	There are around 41 000 museums worldwide, of which around 37 000 have websites. There are around 660 000 public postal establishments. The percentage of those offering online services ranges from 26% (Africa) to 88% (industrialized countries), according to UPU	Excellent prospects for connecting public libraries, museums and archives. Very Good prospects for post offices and cultural centres
e) to connect health centres and hospitals with ICTs	Data are not widely available on a consistent basis, but it is estimated that there are more than 40 000 hospitals worldwide	Excellent prospects for connecting hospitals. Very Good prospects for health centres
f) to connect all local and central government departments and establish websites and email addresses	Out of 191 UN Member States, 178 had a central government website by 2004. Measurement by local government and central government departments is not consistently available	Excellent prospects for connecting central governments and departments. Very Good prospects for local government
g) to adapt all primary and secondary school curricula to meet the challenges of the Information Society, taking into account national circumstances	This target does not lend itself readily to measurement. Within Europe, only in two countries for which data are available is ICT not included in the core curriculum	Very good prospects for ICTs in the curricula in secondary schools. Good prospects for primary schools
h) to ensure that all of the world's population has access to television and radio services	In 2002, the global population coverage was around 95% for radio and 86% for television	Excellent prospects for radio coverage. Very good prospects for TV
i) to encourage the development of content and to put in place technical conditions in order to facilitate the presence and use of all world languages on the Internet	There are over 6 000 languages in the world, many of which do not have a written alphabet and are spoken by small groups of people. Nevertheless, progress is being made on implementing multilingual domain names and linguistic diversity is increasing on the Internet	Very good prospects for achieving technical conditions for all languages to be available on the Internet, but poor prospects for all languages to be in use
j) to ensure that more than half the world's inhabitants has access to ICTs within their reach	Around 80% of the world's inhabitants are within range of a mobile signal. Household ownership of phone service (fixed or mobile) stands at around 40% worldwide. Personal ownership of mobile phones stands at around 30%	Excellent prospects for achieving 50% household coverage. Very good prospects for achieving 50% personal ownership of ICTs

Source: Based on ITU (2003) World Telecommunication Development Report: Access Indicators for the Information Society, and World Bank (2005) Tracking ICTs: World Summit on the Information Society (WSIS) Targets.

The Tunis Summit: a Summit of Solutions

The second phase of the World Summit on the Information Society took place in Tunis from 16 to 18 November 2005. Some 45 Heads of State or Government and Vice-Presidents attended the Summit. More than 19 000 delegates participated, including 5800 representatives from 174 Member States, 1500 participants from 92 international organizations, 6200 from NGOs and civil society entities, 4816 from business sector entities and 1222 accredited journalists.

More than 300 Summit related events also took place in Tunis. The Tunis Summit outputs are contained in two documents: The "Tunis Commitment" and the "Tunis Agenda for the Information Society.

The "Tunis Commitment" reaffirms the Declaration of Principles adopted in Geneva. The "Tunis Commitment" addresses three fundamental issues:

- It sets forth a process to discuss further public policy issues concerning the Internet Governance, by creating the Internet Governance forum.
- It defines concrete responsibilities and mechanisms for the implementation and follow-up of the Summit outputs. In particular, it designs possible moderators/facilitators for each of the 11 Action Lines.
- It addresses the issue of financing for ICT development.

For more information:
www.itu.int/wsis

Action lines and moderators/facilitators

Action Line	*Possible moderators/facilitators*
C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development	ECOSOC/UN Regional Commissions/ITU/ UNDESA
C2. Information and communication infrastructure	ITU
C3. Access to information and knowledge	ITU/UNESCO/FAO/UNIDO
C4. Capacity building	UNDP/UNESCO/ITU/ UNCTAD/UNDESA/UNIDO/FAO
C5. Building confidence and security in the use of ICTs	ITU
C6. Enabling environment	ITU/UNDP/UN Regional Commissions S/ UNCTAD/UNDESA/UNIDO
C7. ICT Applications • E-government • E-business • E-learning • E-health • E-employment • E-environment • E-agriculture • E-science	UNDESA/UNDP/ITU WTO/UNCTAD/ITU/UPU UNESCO/ITU/UNIDO WHO/ITU ILO/ITU WHO/WMO/UNEP/UN-Habitat/ITU/ICAO FAO/ITU UNESCO/ITU/UNCTAD/WHO
C8. Cultural diversity and identity, linguistic diversity and local content	UNESCO
C9. Media	UNESCO
C10. Ethical dimensions of the Information Society	UNESCO/ECOSOC/WHO
C11. International and regional cooperation	UN Regional Commissions / UNDP/ITU/ UNESCO/ECOSOC/UNDESA

Mainstreaming WSIS outcomes into the Union's mandate and activities

"It is true that the Summit increased ITU's visibility. We, however, should do more to blow the myth that only those who are experts in technical matters can participate or contribute to the work of the Union. ITU is home to all stakeholders because information and communication technologies permeate all the facets of human life and impact everybody, regardless of their status, gender, specialty, or geographical location. The potential is there and we must build on the agenda set by the Summit and ensure that ITU's actions act as building blocks towards the attainment of the United Nations Millennium Development Goals set by world leaders in 2000".
Dr Hamadoun I. Touré, ITU Secretary-General, Antalya, November 2006.

Since the second phase of WSIS in Tunis, the ITU held two major conferences of its Member States. Both conferences have contributed to provide the Union with a framework for the implementation of WSIS outcomes for the next four years.

World Telecommunication Development Conference

ITU held its World Telecommunication Development Conference in Doha (Qatar) in March 2006. It was the first global event on ICT development after WSIS and it offered a unique opportunity for ITU Member States to decide on key actions and to prepare for progress monitoring. The Conference adopted the Doha Declaration and the Doha Action Plan, which provide a framework for ITU development Sector's activities in the implementation of WSIS. It contains concrete programmes to bridge the digital divide and 25 regional initiatives.

Plenipotentiary Conference

During the Plenipotentiary Conference (PP), that took place in Antalya (Turkey) from 6 to 24 November 2006, Member States adopted a number of resolutions emphasizing the role of ITU in WSIS implementation and follow-up.

The strategic plan for the Union for 2008-2011 contains a commitment to the implementation of the goals and objectives of WSIS as one of the seven overall goals for the Union. The PP also mandated a study on the participation of all relevant stakeholders in the activities of the Union related to the WSIS.

For more information:
www.itu.int/ITU-D/wtdc06/
www.itu.int/ITU-D/wtdc06/DohaDeclaration.html
www.itu.int/ITU-D/wtdc06/pdf/dohaactionplan.pdf
www.itu.int/plenipotentiary/2006/
www.itu.int/plenipotentiary/2006/docs-proposals/documents.html

ITU leading WSIS implementation at international level

ITU as leading facilitating agency

Under para 109 of the Tunis Agenda ITU, UNESCO and UNDP have been designated to play leading facilitating roles in the implementation of the WSIS Plan of Action. They will also ensure overall coordination among the different multi-stakeholder teams.

In this context, ITU convened together with UNESCO and UNDP a meeting of Action Line Moderators/Facilitators on 24 February 2006, preceded by an informal consultation with CEB members on 23 February 2006.

The purpose of the meeting was to strengthen synergies across the Action Lines and work towards the finalization of the list of moderators/facilitators for the different WSIS Action Lines, as set out in the Tunis Agenda.

More than 130 participants from governments, intergovernmental organizations, business entities and civil society participated. They adopted the terms of reference for moderators/facilitators, as well as the terms of reference for lead agencies. They also designated provisional focal points for each Action Line

ITU as Chair of the United Nations Group on the Information Society

The Tunis Agenda requested the UN Secretary-General, in consultation with members of the UN Chief Executive Board for Coordination (CEB), to establish a UN Group on the Information Society (UNGIS) consisting of the relevant UN bodies and organizations, with the mandate to facilitate the implementation of WSIS outcomes.

UNGIS' terms of reference were adopted by CEB in April 2006. UNGIS held its first meeting on 14 July 2006, which was chaired by the ITU Secretary-General. To maximize its efficiency, the Group agreed on a work plan in which it would concentrate its collective efforts each year on one or two cross-cutting themes and on a few selected countries.

In the coming period, UNGIS will focus on bringing the efforts of the UN system to bear on expanding access to communications, for instance through multimedia community centres, teleshops, etc. Drawing on the respective competencies of the different members of the Group, UNGIS will also focus on applications related to e-health and e-tourism. At the same time, the Group will examine the e-readiness strategies and policies of one or two countries, to be proposed by UNDP, to develop a comprehensive toolkit for bringing the benefits of the Information Society to developing countries.

During the first year UNGIS will be chaired by ITU, with UNESCO, UNDP and WHO acting as vice-chairs.

Measuring progress

Paragraph 28 of the Geneva Plan of Action stressed the need for international performance evaluation and benchmarking to follow up the implementation of the objectives, goals and targets in the Plan of Action.

Paras 112-120 of the Tunis Agenda called for periodic evaluation of the implementation of WSIS, using appropriate indicators and benchmarking.

ITU is recognized worldwide as the leading provider of timely and comprehensive ICT statistics and indicators.

The main purposes for collecting indicators are:

- To understand trends in national, regional and international ICT development
- To assess the opportunities for possible financial mechanisms
- To assess the impact of policy reforms and technical assistance
- To better match the needs of countries with available resources
- To monitor WSIS implementation
- To track global progress in the use of ICTs to achieve internationally agreed Development Goals

Providing ICT indicators

ITU's Telecommunication Indicator Reports present an analysis of trends and developments in the global telecommunication sector. They include:

- Global and regional reports
- Statistics on basic ICT indicators by country, operators, region, gender
- National Internet Case Studies

WSIS stocktaking process

The Tunis Agenda encourages WSIS stakeholders to continue to contribute information on their activities to the public WSIS stocktaking database maintained by ITU. A number of actions aimed at improving the WSIS stocktaking database's functionality were taken during 2006. The database was adapted to serve as an effective tool for the exchange of information for the WSIS Action Line facilitators.

In order to expand the functionality and interactivity of this publicly-available tool, some additional actions were undertaken in 2007. All WSIS stakeholders now have the possibility to manage and up date their projects' description. They can also install the stocktaking database web interface on their own webpages. It is expected that this may have a significant impact on the growth of the number of entered project descriptions.

ITU as the lead agency on ICT indicators to achieve the Millennium Development Goals

ITU has been appointed lead agency for defining ICT indicators for the UN Millennium Development Goals project. The UN called upon ITU to provide indicators, on an on going basis, for measuring access to ICTs.

Partnership on Measuring the Information Society

ITU is an active member of the Partnership on Measuring ICT for Development, launched in 2004. From the core set of indicators identified by the Partnership, ITU has been collecting the majority of infrastructure and access indicators.

For more information:
www.itu.int/wsis/implementation/consultation24feb.html
www.ungis.org
www.itu.int/ITU-D/ict/
www.itu.int/ITU-D/ict/publications/ict-oi/2007/
www.itu.int/ITU-D/ict/mdg/
www.itu.int/wsis/stocktaking/
www.itu.int/ITU-D/ict/partnership/
www.itu.int/osg/spu/statistics/DOI/

Information And Communication Infrastructure: An Essential Foundation For The Information Society

Infrastructure is central in achieving the goal of digital inclusion, enabling universal, sustainable, ubiquitous and affordable access to ICTs by all, taking into account relevant solutions already in place in developing countries and countries with economies in transition, to provide sustainable connectivity and access to remote and marginalized areas at national and regional levels.

"This tremendous growth in mobile services is the result of regulatory reforms, innovative business practices and leveraging technological developments. Our task now is to extend this success to broadband internet access and next-generation networks, services and applications. We all need to work together to leverage the promises of next-generation networks to ensure that the WSIS targets of connecting all the world's villages to ICTs by 2015 are met".
Dr Hamadoun I. Touré, ITU Secretary-General, Dubai, February 2007.

By providing a framework for international cooperation and partnership in telecommunications, ITU's aims are:

- To assist in bridging the international digital divide in information and communication technologies (from basic radio to wireless Internet), by facilitating the development of fully interconnected and interoperable networks to promote global connectivity
- To give priority to the development of infrastructures in least-served countries and areas
- To assist developing countries in migrating towards new-generation technologies and to lower their cost of access

Facilitating infrastructure development

ITU assists developing countries to formulate and implement economic and financial policies and strategies. ITU provides:

- Databases on main sources of financing for telecommunication development
- Software for the calculation of costs, tariffs and rates for fixed and mobile telephone services, and for the estimation of sensitivity to market risk
- Policy papers and studies on financing infrastructures and lowering the cost of access

ITU organizes regional forums to promote ICT infrastructure development by fostering partnerships between public and private sectors regional and international organizations, financial institutions and service providers.

Shared community access is also one of the priority domains in ITU's mandate. Projects on multipurpose community telecentres are ongoing in countries around the world, including Afghanistan, Bhutan, Kyrgyzstan and Mauritania.

Studying international connectivity

- ITU–T Study Group 3 has been carrying out extensive studies on international Internet connectivity since 1998. For instance, the Group studied the economic effect of alternative calling procedures, such as voice over Internet Protocol (VoIP) and call-back, and how these impact the development of telecommunication network and services, in particular in developing countries.
- In 2000, the ITU World Standardization Assembly adopted ITU–T Recommendation D. 50 on peering or transit arrangements between Internet service providers and Internet backbone providers.
- ITU also issued a study on the creation of local and regional IXPs to save money and bandwidth.

Strengthening capacities

Through regional Centres of Excellence and a worldwide network of Internet Training Centres, ITU offers training on Internet (IP) networks and services, on calculation of costs and tariffs, interconnection, rural connectivity and spectrum management.

A wireless world

At the heart of this wireless world lies ITU. The Union plays a vital role in the management of the radio-frequency spectrum.

- It acts as the global spectrum coordinator and registrar of international frequency use, ensuring each and every radio-based service can operate without harmful interference
- It determines the technical characteristics of the growing range of wireless services
- It provides direct assistance to countries to migrate to third-generation networks

Towards a new broadband global infrastructure

Through standards development aimed at defining the building blocks of a new broadband infrastructure, ITU is leading the way. The next-generation network (NGN) is a key area of study for ITU, as operators around the world look to migrate to an IP-based infrastructure. The convergence between Internet Protocol (IP), public switched telephone network (PSTN), digital subscriber line (DSL), cable television (CATV), wireless local network (WLAN) and mobile technologies would be impossible without the development of global standards at ITU.

Benefiting from convergence

Advances in technology and competitive access are driving the revolution towards wireless access infrastructure and broader convergence of broadcasting, telecommunication and informatics. Convergence also offers sizeable opportunities for the implementation of appropriate new technologies by developing countries. ITU's main activities include:

- International standardization in the field of cellular telephony (such as IMT-2000), next-generation networks, broadband access
- Assistance to countries to plan, build, operate, upgrade, manage and maintain technologies applicable to their networks and services
- Expert advice and transfer of know-how through symposia, workshops, conferences and seminars on digital broadcasting, mobile communication and innovative technological applications
- Production of guides, planning manuals and professional engineering training materials on a new approach to planning evolving network architectures to NGN, mobile network transition for 2G and 3G and spectrum management

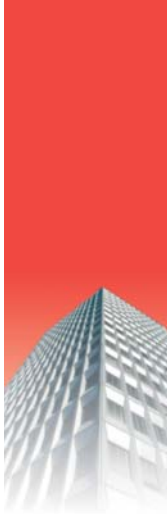
Facilitating the implementation of Action Line C2

The first meeting of Action Line C2 was held in Geneva on 18 May 2006. It confirmed the essential role of ITU in facilitating the implementation of Action Line C2. The work of the group will focus on a series of core activities. Updated information about the facilitation of Action Line C2 will be available at www.itu.int/wsis/c2/index.html.

The Plan of Action for the WSIS Action Line C2 aims to facilitate the following activities:

- Promotion of National ICT-Strategies;
- Harmonization of the ICT Policies in the different regions;
- Development of regional and large-scale national initiatives;
- Launch of global thematic ICT Infrastructure initiatives for:
  - Public Access
  - ICT-Applications for Development
  - Broadband Connectivity
  - Large-scale ICT backbones
  - Development of a virtual financing platform
  - Deployment of an online tool for ICT Development Assessment

For more information
www.itu.int/wsis/c2/
www.itu.int/ITU-D/e-strategies/MCTs/
www.itu.int/ITU-D/finance/
www.itu.int/ITU-T/studygroups/com03/index.asp
www.itu.int/ITU-D/hrd/
www.itu.int/ITU-D/tech/
www.itu.int/ITU-D/study_groups/
www.itu.int/home/imt.html
www.itu.int/partners/
www.itu.int/ITU-T/index.phtml
www.itu.int/ITU-T/ngn/
www.itu.int/ITU-R/
www.itu.int/osg/spu/ngn/



Capacity Building

Everyone should have the necessary skills to benefit fully from the Information Society. Therefore, capacity building and ICT literacy are essential. ICTs can contribute to achieving universal education worldwide through the delivery of education and the training of teachers, the offer of improved conditions for life-long learning, encompassing people that are outside the formal education process, and the improvement of professional skills.

All organizations in the convergent telecommunication/ICT sectors require highly qualified staff to keep pace with exponential change, be it technical, political and/or organizational.

Policy makers and regulators, corporate executives and senior managers at the service-provision level are the priority target of ITU's training and human resource development efforts.

ITU pursues the following objectives:

- Transferring knowledge through training
- Sharing experiences and know-how
- Assisting its Members to strengthen their human resources and training functions

Offering online courses

The ITU e-Learning Centre provides a global platform aimed at strengthening human capacities in the area of telecommunication. Each year, it offers more than 50 online courses on telecommunication policy, technology, regulatory issues, strategic management, change management, e-services, spectrum management and network engineering. The ITU e-Learning Centre also facilitates knowledge-sharing among telecommunication professionals through online e-communities.

Providing direct assistance

ITU provides direct assistance to policy-makers and regulators, as well as to member operators and service providers, in managing their transformation process, including business planning strategies and methodologies and the alignement of human resources with organizational changes.

Establishing high-level training centres

- ITU has created six regional Centres of Excellence. They offer advanced training to decision-makers and senior executives in policy, regulation, management and network architecture. In addition, the Centres serve as regional focal points for professional development, research and information and also provide consultancy services to the government and private sectors.
- ITU, together with CISCO, launched the Internet Training Centre Initiative (ITCI). To date, 63 centres have been created in non-profit learning institutions and ministries in 49 countries, including 18 least developed countries.
- ITU partnered with the European Commission in the Internet Training Centres Project. Twelve (12) Centres have been created with the mandate of training a minimum of 1 000 persons per year. They offer advanced courses with the objective of enabling the graduates to set up new web-based businesses using open source solutions.
- The e-Community Learning and Information Centres (eCLICs) Initiative aims at establishing centres at schools to provide better learning opportunities to teachers and students. These centres also serve as hubs to extend various capacity-building initiatives to communities.

Launching special initiatives for the youth

- Through the Youth Education Scheme (YES) initiative, ITU supports young people from developing countries to complete their tertiary education in the ICT field. The initiative benefits from financial support from companies such as Vodafone, ANACOM and Thales.
- In partnership with UNHCR and the Ministry of Communication from Ghana, ITU established an ICT training centre for young refugees from Liberia.

Support to NEPAD e-Schools Initiative

ITU supported the first phase of this project aiming at creating 96 NEPAD e-schools in 16 countries.

This project intends to impart ICT skills to young Africans in secondary schools and to use ICTs to improve access to education and health care.

A virtual ICT empowerment network

Through its "Connect the World" Initiative, ITU signed an agreement with Grameen Bank to launch a virtual ICT empowerment network. Priorities of this network will be to use the expertise of the private sector in areas such as device design and wireless services to develop ICT solutions for the poor, to work with the Grameen Foundation to expand village phone into as many countries as possible and to work with partners to provide micro-credit to students of Internet Training Centres to start their own businesses.

For more information:
www.itu.int/wsis/c4-c6/
www.itu.int/ITU-D/hrd/
www.itu.int/ITU-D/youth/
www.itu.int/partners/

Building confidence and security in the use of ICTs

Confidence and security are among the main pillars of the Information Society.

"The development of next-generation networks will focus more attention on the critical issue of cybersecurity. Today's networks are ever more complex and contain several different generations of code, creating inevitable weaknesses that can be exploited by hackers. The move to a single unified platform should make these cybersecurity threats more manageable. Cybersecurity will be a major priority for ITU in the coming years".
Dr Hamadoun I. Touré, ITU Secretary-General.

At the start of the 21st century, modern societies have a growing dependency on ICTs, which are globally interconnected. However, new threats to network and information security have emerged. There is a growing misuse of electronic networks for criminal purposes or for objectives that can adversely affect the integrity of critical infrastructures within countries.

Security matters have long been a core ITU activity. ITU provides a unique forum of Member States, private sector actors and other entities who all have an interest in promoting a global culture of cybersecurity. ITU's objectives include:

- Fostering international cooperation on cybersecurity and critical information infrastructure protection (CIIP)
- Providing a platform to facilitate discussion and the exchange of experiences and the creation of harmonized policy frameworks
- Providing reliable information and data
- Identifying gaps in communication security standards work and promoting efforts to address those gaps
- Capacity building for developing countries

Fostering international cooperation on cybersecurity

- ITU facilitates the exchange of best practices on cyber security issues between developed and developing countries, regulators, the private sector and civil society, in order to foster harmonized legal frameworks
- ITU addresses these issues through national, regional and international seminars, workshops and symposia
- ITU provides an international forum for standardization. Intensive work is being carried out by ITU study groups on processes for distribution, sharing and disclosure of vulnerability information, standard procedures for incident-handling operations in cyberspace and strategies for the protection of network infrastructures

Disseminating information on cybersecurity/CIIP issues

- The ITU Cybersecurity Gateway: an easy-to-use information resource on national and international cybersecurity-related initiatives worldwide
- The "Partnerships for Global Security" website, describing a number of cybersecurity-related work programmes and activities worldwide
- Security manual on "Security in Telecommunication and Information Technology"
- Catalogue of the approved security recommendations related to telecommunication security
- Compendium of approved security definitions, with a view to establishing a common understanding and use of security terms
- Cybersecurity and cybercrime reference guide for developing countries

Providing technical assistance

- Direct assistance to countries in the formulation of policies and strategies on cybersecurity
- Support at national and regional levels in the elaboration of legislative frameworks to build trust and confidence in ICTs
- Organization of national and regional workshops and symposia to share information and best practices in security and trust technologies and policies (IP-based network security, security management, mobile security, biometric authentification)
- Support for the deployment and use of ICT solutions based on security and trust technologies in areas such as e-government and e-health services

Facilitating the implementation of Action Line C5

As the facilitator of Action Line C5, ITU organized a first meeting on 15-16 May 2005. Based on that meeting, work programmes in three focus areas have been initiated, including:

1) Development of a generic model framework or toolkit that national policy-makers can use to develop and implement a national cybersecurity or Critical Information Infrastructure Protection (CIIP) programme;
2) Capacity building on the harmonization of cybercrime legislation, the Council of Europe's Convention on Cybercrime, and enforcement;
3) Information-sharing of best practices on developing watch, warning and incident response capabilities.

For updated information of the facilitation of the implementation of Action Line C5, consult www.itu.int/osg/spu/cybersecurity/pgc/

A new project for enhancing cooperation on cybersecurity and countering spam

In 2007, ITU is launching a four-year project to enhance cooperation on cybersecurity and countering spam. This project will aim primarily at providing assistance to developing countries in the following areas: elaboration of national legislations on the misuse of ICTs, elaboration of national policies and strategies for cybersecurity/critical information infrastructure protection, building human and institutional capacity, implementation solutions for national watch, warning and incident response capabilities, spam countering measures, facilitation of the exchange of information between countries and relevant stakeholders, and implementation of effective tools and applications.

Stop Spam Alliance

The Stop Spam Alliance is a joint initiative to gather information and resources on combating spam. This initiative was undertaken by the Asia-Pacific Economic Cooperation (APEC-TEL), the European Union's Contact Network of Spam Authorities (CNSA), ITU, the London Action Plan, the Organisation for Economic Co-operation and Development (OECD) and the Seoul-Melbourne MoU anti-spam group.

For more information:
www.itu.int/wsis/c5/
www.itu.int/cybersecurity/
www.itu.int/pgc/
www.itu.int/cybersecurity/itu_activities.html
www.stopspamalliance.org

Enabling Environment

To maximize the social, economic and environmental benefits of the Information Society, governments need to create a trustworthy, transparent and non-discriminatory legal, regulatory and policy environment.

"The migration to next-generation networks represents a unique opportunity to analyze and evolve our regulatory frameworks. One guiding principle, as we develop our regulatory frameworks, is to ask how to craft the best regulatory framework to achieve the WSIS objective of ensuring that all the world's people have access to ICTs".
Dr Hamadoun I. Touré, ITU Secretary-General, Dubai, February 2007.

The growing participation of regulators in the work of the Union makes it a unique platform for collaboration and dialogue on telecommunication and ICT-related regulatory issues:

ITU's activities target the following objectives:

- To ensure equitable, effective and economical use of the radio frequency spectrum and satellite orbit
- To ensure efficient and timely production of high-quality ICT standards
- To support regulatory bodies to effectively meet their national ICT development goals and face new challenges
- To foster an open dialogue among regulators and with key stakeholders, including the private sector, investors and consumers

Building consensus towards a harmonized legal and policy framework

By organizing forums for regulators, ITU provides a platform for dialogue and exchange of best practices between regulators and key stakeholders, in order to foster the adoption of harmonized legal instruments.

- The Global Symposium for Regulators (GSR): an annual meeting of national regulatory authorities from around the world
- The Global Regulators' Exchange (G-Rex): a virtual platform for facilitating the exchange of best regulatory practices
- Virtual conferences are organized periodically on key regulatory topics such as the use of Wi-Fi

technology for rural access, national dispute resolution and regulatory cooperation on spam.

- Regional regulatory forums: an opportunity to discuss common regional issues
- Ongoing study groups to develop spectrum regulation initiatives to better harmonize frequency allocations and the use of satellite orbits.

Disseminating studies and guidelines for decision makers

ITU provides key reference tools for its members and for the global telecommunication community:

- Regulatory profiles (country and regional) and case studies
- Best practice guidelines on interconnection, licensing, numbering, spectrum management and universal access
- Documents and reports on: interconnection, Internet and convergence, licensing, mobile connectivity, dispute resolution, numbering, pricing and cost, universal services, spectrum management, unbundling, spam, regional telecommunication policies and satellite regulations
- An annual publication on "Trends in Telecommunication Reform" that addresses policy and regulatory issues governments face in developing their ICT environment, such as interconnection, universal access, licensing in an era of convergence, voice over IP, spam, broadband and next-generation networks.

Providing technical assistance

- Building capacity through:
  - The organization of high-level workshops on policy and regulatory issues, including the development of model legislation, universal access/service policies and strategies
  - Online training on alternative dispute resolution and interconnection regulation
- Supporting regional synergies through the creation of regional regulatory associations
- Assisting new regulators, particularly in post-crisis countries
- Conducting studies on national/regional assessments of the telecommunication market

Participating in the discussions on Internet governance

ITU activities in the area of Internet governance and the administration of Internet Names and IP addresses centre mainly around the production of standards and development of ITU Recommendations. Technical standardization needs to consider the growing convergence towards next-generation networks and its impact on numbering and addressing schemes. Other activities include:

ICT market harmonization for ECOWAS

In 2004 ITU launched a regional project in cooperation with the European Commission to support the establishment of an integrated ICT market in West Africa. A series of best-practice guidelines were developed in cooperation with all stakeholders, including government representatives, regulators, operators and consumers from across the region. Based on these guidelines, ICT regulatory decisions providing an ICT-enabling environment for the region were adopted by the ECOWAS Ministers in charge of telecommunications and ICTs and subsequently by the ECOWAS heads of States in January 2007.

- Support for the implementation of IPV6: assistance in the deployment of IPv6 systems, organization of workshops
- Internationalized domain names: organization of workshops, technical standardization
- Support for the administration of the root server system: awareness-raising on "Anycast technology"

The outcome of the second phase of WSIS in 2005 outlined a two-track approach to Internet governance. The first was the establishment of a process towards "enhanced cooperation". The second was the establishment of an Internet Governance Forum (IGF) as a non-decision making forum for "multi-stakeholder policy dialogue" between governments, industry and civil society. ITU participated in the IGF Advisory Group and assisted in organizing the first meeting, as well as providing speakers and background materials for the first event held in Athens from 30 October to 2 November 2006.

ICT "eye"

In 2006, ITU published the ICT "eye" website. This web platform offers a unique source of information on the development and use of ICTs. It breaks down information per country on ICT indicators and statistics, regulatory and policy profiles, national tariff policies, operator information, financial and scientific institutions.

ITU-InfoDev ICT Regulatory Toolkit

This web-based tool provides regulators, telecom service providers, policy-makers and the general public with the latest information on regulatory topics, best practices and case studies. It includes in-depth online modules on the legal and institutional framework, authorization, competition, interconnection and pricing, universal services, as well as spectrum management.

For more information:
www.itu.int/wsis/c4-c6/
www.itu.int/ITU-D/treg/
www.itu.int/osg/spu/intgov/
www.itu.int/ITU-T/studygroups/com17/
www.itu.int/ITU-T/tsb-director/itut-wsis/
www.itu.int/ITU-T/special-projects/ip-policy/
www.itu.int/osg/spu/ngn/
www.itu.int/ITU-D/icteye/Default.aspx

ICT applications: Benefits in all aspects of life

ICT applications can support sustainable development in the fields of public administration, business, education and training, health, employment, environment, agriculture and science, within the framework of national e-strategies.

"Let us use all our energy and innovation to harness ICT to our work towards the Millennium Development Goals. Let us turn the digital divide into digital opportunity. Let us promote new business models, public policies and technology solutions in the global approach to development".
UN Secretary-General Ban Ki-moon, Santa-Clara, February 2007.

ICT applications are the subject of extensive efforts throughout ITU. Projects are implemented closely with other UN specialized agencies such as WHO, UNCITRAL, UNDP, UNIFEM and others, as well as with the private sector. Where applicable, projects actively take into account wireless and broadband technologies.

Projects' objectives include:

- Fostering the implementation of value-added IP applications in economic and social sectors
- Extending the social and economic benefits of ICTs to all segments of society
- Ensuring sustainability in development of telecommunication/ICT networks

Cybersecurity and e-government in Bulgaria

ITU assistance in the implementation of a cybersecurity platform enables highly secure communication between the Ministry of Transport and Communications, the Ministry of Finance, the Council of Ministries and the Communications Regulation Commission (CRC of Bulgaria), using PKI and PKI-enabled applications. It permits secure, efficient and cost-effective interaction between senior government officials, thereby supplementing face-to-face meetings and increasing productivity. All data exchanged between the participating officials are secured and digitally signed using data confidentiality, non-repudiation, data integrity and certificate-based strong authentication techniques.

E-government

- Support for inter-ministerial network development
- Training in the use of secure and trusted Internet infrastructure and applications, to enhance government services
- Development of Internet-based services and applications for citizens, with a view to increasing government efficiency and transparency

E-health

- Support for the connection of hospitals and clinics
- Promotion of access to health information in rural areas and the exchange of medical information
- Development of national standards for health information management and information technology
- Production of studies on the application of telecommunication in health care

E-commerce

- Support for the establishment of a favourable legal environment for e-commerce, by assisting Member States in the area of legislative reform
- Development of services based on digital certification, e-signature, e-commerce and the protection of consumer rights for e-transactions.

Tampere Convention on the Provision of Telecommunication Resources for Disaster Mitigation and Relief Operations

ITU was a driving force in drafting and promoting the Tampere Convention. The Convention allows relief workers to make full use of life-saving communication tools. It calls on States to waive regulatory barriers that impede the use of telecommunications. These barriers include licensing requirements to use frequencies, restrictions on importing equipment and limits on the movement of humanitarian teams. The Convention came into force on 8 January 2004, following its ratification by 30 countries.

Emergency situations

- Disasters preparedness through standards for public telecommunication services and interoperability of telecom networks
- Disaster mitigation through radiocommunication (spectrum management), establishment of globally/ regionally harmonized frequency bands, application of satellite services, support to emergency broadcasting maritime and public safety signals
- Capacity-building activities
- Relief and reconstruction operations

For more information:
www.itu.int/ITU-D/e-strategies/
www.itu.int/ITU-D/ldc/
www.itu.int/emergencytelecoms/

The core competences of the ITU in the field of ICT assistance in bridging the digital divide, international and regional cooperation, radio spectrum management, standards development and the dissemination of information are of crucial importance for building the Information Society.

WSIS Declaration of Principles (Paragraph 64)

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