

ITU-D Activities

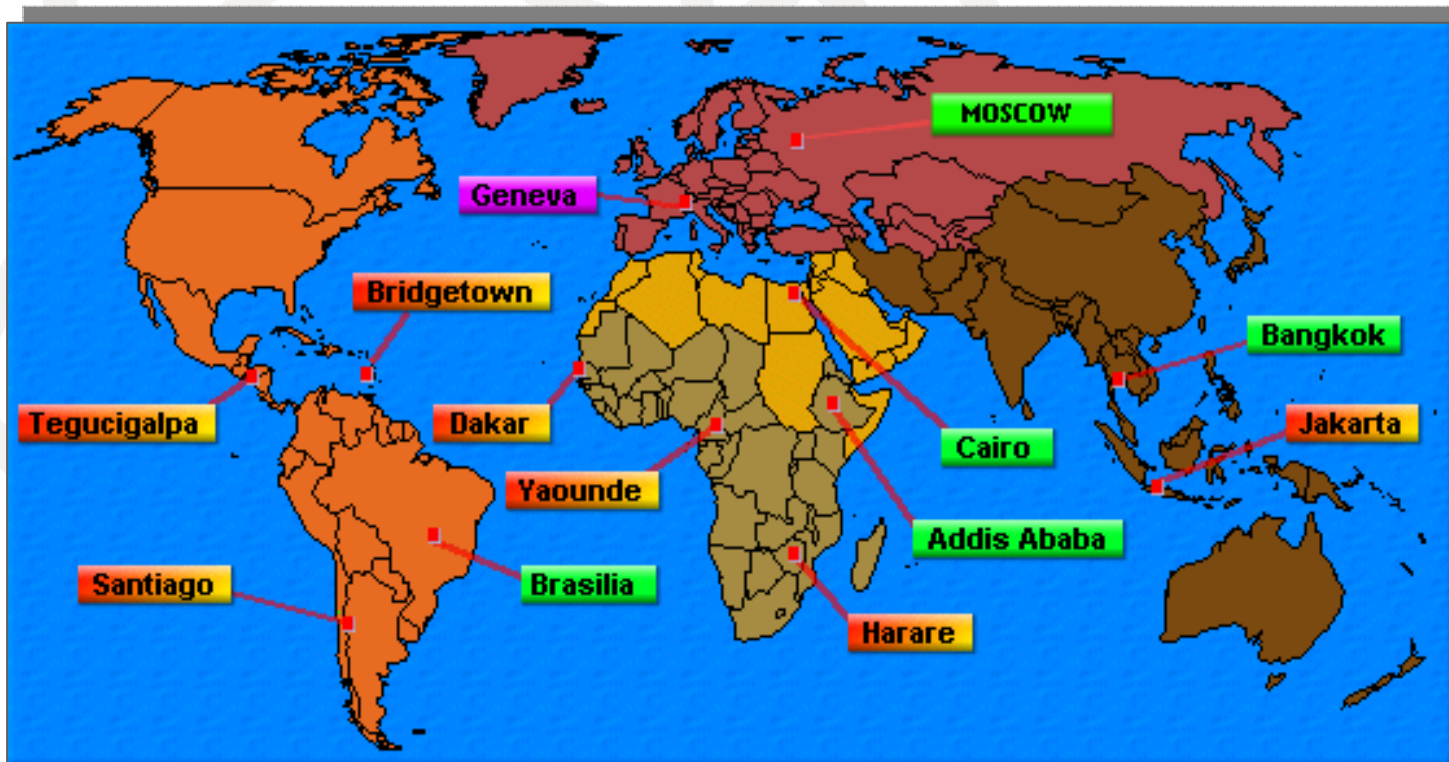
Riccardo Passerini

Telecommunication Development Bureau
International Telecommunication Union

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ITU Around the World

5 regional offices, 8 area offices
HQ in Geneva, Switzerland



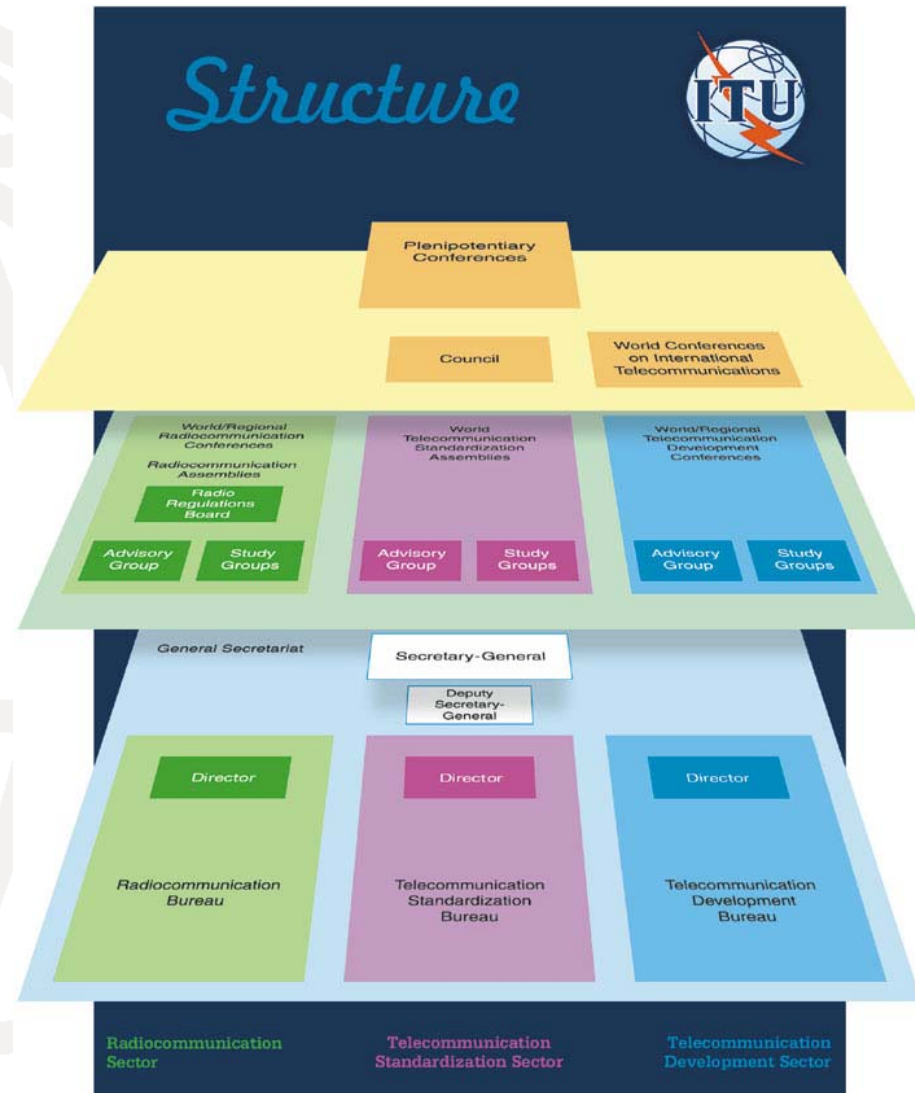
Seven Main Goals of the Union

Under the Strategic Plan of the Union for 2008-11

- Maintain and extend **international cooperation**
- Assist in **bridging the digital divide** and promote global connectivity through implementation of WSIS goals and objectives
- Widen the Union's **membership**
- Develop tools to **safeguard networks**
- Continue to improve **efficiency and effectiveness**
- Disseminate **information and know-how of ICT**
- Promote the development of an **enabling environment**

ITU Structure

- Office of the Sec-Gen
- 3 Sectors with Bureaux
- Membership:
 - 191 Member States
 - Sector Members
 - ITU-T 330
 - ITU-R 291
 - ITU-D 321
 - Associates
 - ITU-T 116
 - ITU-R 29

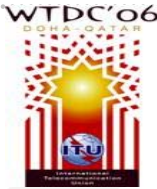


Additional details available on ITU web site:
www.itu.int/aboutitu/overview/index

ITU Sector Roles and Missions

- **General Secretariat**
 - Coordinates and manages the administrative and financial aspects of the Union's activities
 - Coordinates radio communications, radio-frequency spectrum management and wireless services
- **ITU-R**
- **ITU-T**
 - Mission is to ensure an efficient and on-time production of internationally applicable high quality standards covering all fields of telecommunications
- **ITU-D**
 - Technical assistance and deployment of telecom networks and services in developing and least developed countries to develop communication services

ITU-D: WTDC



- Held approx. every 4 years:
 - WTDC 2002, Istanbul
 - WTDC 2006, Doha
- Objectives and strategies for telecoms development
 - Priority: expand, modernize networks to boost telecoms penetration and access in the world's poorer countries
- International cooperation
- ITU-D SGs, mandates



ITU-D: Study Groups, TDAG

- **ITU-D:**
 - **Purpose:** devise innovative solutions to specific problem areas per WTDC
 - **No technical standards**
- **SGs focus: telecoms development strategies**
 - **SG 1 - Telecommunication development strategies and policies**
 - **SG 2 - Development and management of telecommunication services and networks and ICT applications**
 - **TDAG: Advisory Group**



The digital divide problem

Table 5.1: Where the divides lie

Overview of the main forms of the digital divide affecting individuals and countries

For individuals	For countries
Socio-economic status	Development stage
Gender	Infrastructure
Age, life stage	Public policy
Language/ethnic status	Skills mix
Rural/urban location	Size of domestic market
Skills balance	Location relative to trading partners

Source: Adapted from "How real is the Internet market in developing nations?" by Madanmohan Rao, at <http://www.isoc.org/oti.articles/0401/rao.html>

ITU Development Sector (ITU-D)

Mission: "promoter & catalyst" for ICT / Telecom development

- Strengthen cooperation between ITU Members
- Foster enabling environment that promotes ICT/telecom development
- Identify projects, promote investment and P/P partnerships.
- Support implementation of global, regional initiatives
- Undertake economic, financial, technical studies on ICT issues
- Assist developing countries in building capacity and disseminate information and know-how

Priority Areas

- **Enabling Environment for ICT investment**
 - Regulatory and policy harmonization, training, toolkit, best practices, global symposia
- **ICT Infrastructure/Access**
 - Rural connectivity, regional interconnectivity
 - Tele-centres, village phone/shared access
 - Low cost connectivity, shared infrastructure
- **Capacity Building**
 - Centres of Excellence, Internet Training Centres, Scholarships, internships, employability
- **ICT Applications and Cybersecurity**
 - E-government, cybersecurity, e-health, e-education
- **Emergency telecommunications**
 - Standards, network rehabilitation, frequency allocation, collaboration for rapid deployment of equipment



World Telecommunication Development Conference

WTDC-06, Doha 7-15 March 2006

Programmes/Activities/Initiatives

■ Six Programmes

- Regulatory Reform
- Information and communication infrastructure and technology development
- E-strategies and ICT applications
- Economics and finance including costs and tariffs
- Human capacity building
- Least developed countries and small island developing states, and emergency telecommunications

■ Activities

- Statistics and information on telecommunications/ICT
- Partnerships and promotion

■ Special initiatives

- Private Sector
- Gender
- Young people and children
- Indigenous people and communities
- People with disabilities

■ Regional initiatives

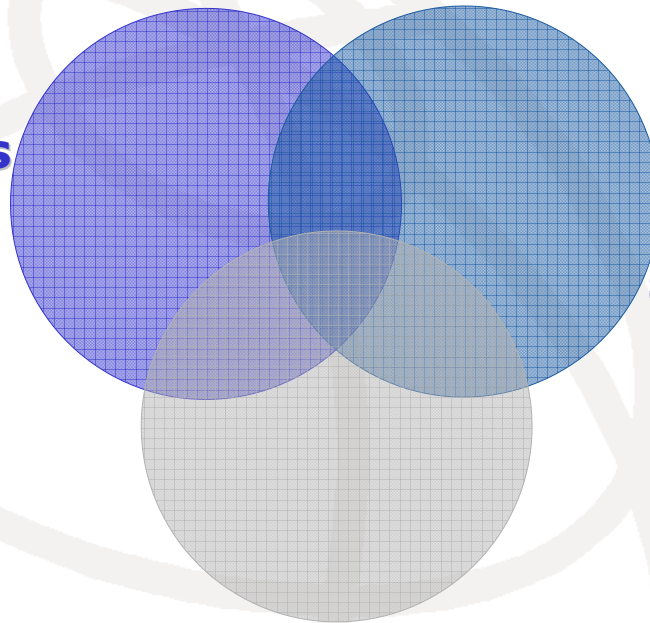
- Africa / Americas / Arab Region / Asia-Pacific / CIS

■ WSIS Implementation

- WSIS Action Line C2 Facilitation
- WSIS Action Lines Co-facilitation
- WSIS Stocktaking etc.

ITU-D Study Groups

**ITU-D Study Group 1
Telecommunication
development strategies
and policies**



**ITU-D Study Group 2
Development and
management of
telecommunication
services and networks**

**Collaboration with others ITU-T and ITU-
R Study Groups
Global Initiatives or Focus Groups**

**Collaborative working methods ordered along set of
questions reflecting evolution of the information and
communication sector**

SG1: Telecommunication Development Strategies and Policies

- Q 6-2/1: Regulatory impact of **next-generation networks** on interconnection
- Q 7-2/1: Regulatory policies on **universal access** to broadband services
- Q 10-2/1: Regulation for **licensing** and authorization of converging services
- Q 12-2/1: **Tariff policies, tariff models** and methods of determining the costs of services on national telecommunication networks, including next-generation networks
- Q 18-1/1: Domestic enforcement of **telecommunication laws**, rules and regulations by national telecommunications regulatory authorities
- Q 19-1/1: Implementation of **IP telephony** in developing countries
- Q 20/1: Access to telecommunication services for **people with disabilities**
- Q 21/1: Impact of telecommunication development on the **creation of employment**
- Q 22/1: Securing information and communication networks: Best practices for developing a culture of **cybersecurity**

SG2: Development and management of telecommunication services and networks

- **Q 9-2/2:** Identification of study topics in **the ITU-T and ITU-R study** groups that are of particular interest to developing countries
- **Q 10-2/2:** Telecommunications for **rural and remote areas**
- **Q 11-2/2:** Examination of terrestrial digital sound and television **broadcasting technologies** and systems, including cost-benefit analyses, interoperability of digital terrestrial systems with existing analogue networks and methods of migration from analogue terrestrial techniques to digital techniques
- **Q 14-2/2:** Telecommunications for **e-health**
- **Q 17-2/2:** Progress on activities for **e-services/applications** in the world
- **Q 18-1/2:** Implementation aspects of IMT-2000 and information-sharing on systems beyond **IMT-2000 for developing countries**
- **Q 19-1/2:** Strategy for migration from existing networks to **next-generation networks** for developing countries
- **Q 20-2/2:** Examination of access technologies for **broadband telecommunications**
- **Q 22/2:** Utilization of ICT for **disaster management** and active and passive space-based sensing systems as they apply to disaster prediction, detection and mitigation
- **Resolution 9 (Rev. Doha, 2006):** Participation of countries, particularly developing countries, in **spectrum management**

QUESTION 18-1/2

IMPLEMENTATION ASPECT OF IMT-2000 AND INFORMATION-SHARING ON SYSTEMS BEYOND IMT-2000 FOR DEVELOPING COUNTRIES

ISSUES PROPOSED FOR STUDY

PERIOD 2006-2010

- Identify ways of implementing IMT-2000, using satellites, as appropriate, for some countries and regions,
- Identify the key elements to be studied in order to provide efficient and cost effective implementation of IMT-2000 and its evolution in developing countries,
- Propose useful content for the development of training modules by ITU-D for users of IMT-2000 services and applications,
- Provide information on the specific impact of the implementation of IMT-2000 on women, youth, indigenous people and people with disabilities,
- Provide information on systems beyond IMT-2000.

EXPECTED OUTPUT

- Reports on the proposed study issues with proper collection,
- Analysis and periodic dissemination of data from relevant groups within ITU, in particular ITU-R Study Group 5 and ITU-T Study Group 19 and those outside (operator groups for mobile services, etc.),
- Inform the SG2 on the progress of the issues for study on a yearly basis.

Rapporteur's Group meetings

- **Last Rapporteur's Group Meeting:
Geneva 30 April February 2008**
 - PROPOSED STRUCTURE OF FINAL REPORT OF Q18 2/2
(INCLUDING GUIDELINES WHERE PERTINENT)
 - Q.18-1/2 has agreed to revise the Guidelines on
the Smooth Transition of Existing Mobile Networks
to IMT-2000 for Developing Countries (GST)
www.itu.int/publ/d-stg-sg02.18-1-2006/en.
Contributions are sought for this work item as well.

- **Next Rapporteur's Group Meeting:
During the next SG2 Meeting, Geneva
15-19 September 2008**

QUESTION 20-2/2

Examination of access technologies for broadband telecommunications

Question for Study and Expected Output

- **Identify the technical, economic, and development factors influencing the effective deployment of broadband wired and wireless access technologies and their applications, with a focus on technologies and/or standards recognized or under study by the other two ITU Sectors.**
- **Taking into account the expected results from ITU-T and ITU-R, there will be a set of best-practices guidelines for implementing wired and wireless broadband technologies in developing countries.**
 - **Technology Scope:**
- **All broadband technologies - as inclusive as contributions permit.**
- **Report presented in WTDC-06**
<http://www.itu.int/publ/D-STG-SG02.20.1-2006/en>

Currently Being Developed: Best Practice Guidelines for the Broadband Access in Developing Countries

- The Rapporteur and Vice-Rapporteurs of Question 20-2/2 are currently working together to produce a draft for the Best Practice Guidelines.**
- The previous guidelines developed at the 2004 Global Symposium for Regulators will be referred to.**
- Administrations and sector members are encouraged to submit contributions with suggested text and content.**

Rapporteur's Group meetings

- **Last Rapporteur's Group Meeting:
Geneva 1-2 May 2008**
 - BROADBAND ACCESS TECHNOLOGIES MATRIX
<http://www.itu.int/md/D06-RGQ20.2.2-C-0015/en>
- **Next Rapporteur's Group Meeting:
During the next SG2 Meeting, Geneva
15-19 September 2008**

Question Q.19-1/2

Strategy for migration from
existing networks to next-
generation (NGN) for developing
countries

Work Plan- list of Tasks to be completed

- **Issues proposed for study under Q.19-1/2**
 - a) trends of telecommunication networks
migration towards NGN
 - b) examination of NGN technologies (network management, transport networks, access networks, interworking with existing networks, etc..)
 - c) methodologies for planning, with taking into account the behaviour of different existing networks
 - d) migration solution to NGN

Work Plan-expected outputs

Expected outputs for Q.19-1/2

- i. Yearly progress report on NGN development
- ii. A report of methodologies for planning NGN (multidimension planning process, service demand, forecasting methods, traffic forecasting models, and structure and dimensioning optimization methods.
- iii. A set of guidelines for migration from existing network to NGN

Rapporteur's Group meetings

- **Last Rapporteur's Group Meeting: Geneva 18-19 February 2008**
- **Draft "guidelines for developing countries on migration towards NGN": The objective of these guidelines is to offer guidance for developing countries on the technical issues for consideration when envisaging a migration of their existing PSTN/ISDN networks to NGN.**
http://web/dms_ties/itu-d/md/06/rgq19.1.2/c/D06-RGQ19.1.2-C-0011!R1!MSW-E.doc
- **Next Rapporteur's Group Meeting: During the next SG2 Meeting, Geneva 15-19 September 2008**

Connect the World (CTW)

- **Global platform** for partnership development in the ICT sector
- **Launched in 2005** with 22 partners – now has 50 partners and growing
- Open, **multi-stakeholder initiative**
- **Mission:** mobilize global community to implement connectivity goals of the WSIS
 - “Connect the unconnected by 2015”
- Three “**building blocks**”:
 - enabling environment
 - infrastructure and e-readiness
 - applications and services
- **Call for Partners!**



Connect Africa



A Global Multi-Stakeholder Partnership

to mobilize the human, financial and technical resources required to bridge major gaps in information and communication technology (ICT) infrastructure across the region, with the aim of supporting affordable connectivity and applications and services to stimulate economic growth, employment and development throughout Africa.

www.itu.int/itu-d/connect/africa

Summit of Leaders Kigali, Rwanda, 29–30 October 2007

Patronage: The President of Rwanda, Mr Paul Kagame

Organizers: ITU, African Union, World Bank Group, the United Nations Global Alliance for ICT and Development GAICD

Partners: African Development Bank, the African Telecommunication Union and the UN Economic Commission for Africa



ITU-D Projects | ITU-D Projects - Microsoft Internet Explorer

Address: http://www.itu.int/itu-d/projects

International Telecommunication Union

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ITU-D Projects

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

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ITU Membership

- An interested entity or organization may join ITU as a Sector Member
- An ITU Sector Member participates in the work of corresponding ITU Sector:
 - Study/Working Groups, Regional and World Telecommunication Conferences, Advisory Groups, workshops, seminars and meetings
- Also an opportunity to influence decisions and network architecture



ITU Membership (as of May 2007)

	ITU-R	ITU-T	ITU-D	TOTAL
Member States	191	191	191	191
Sector Members	289*	328*	323*	611
Associates	29*	119*	6*	143
Total:	509	638	520	945

*Sine are multiple ITU Sector Member

The number of the ITU Members is continuously growing!

ITU Membership* Regional Breakdown (UNDP Regions) as of May 2007

	ITU-R	ITU-T	ITU-D	TOTAL**
AFRICA	18	18	40	45
AMERICAS	66	101	66	153
ARAB STATES	22	19	77	81
ASIA-PACIFIC	66	69	53	121
EUROPE/CIS	117	121	87	211
Total:	289	328	323	611

* Companies or organizations can be Sector Members of one or several Sectors.

** Total per region of Sector Members (participating in the work of one or several Sectors).

Who are the Sector Members?

- Network operators / carriers / service providers
- Technology / equipment suppliers
- Software / application developers
- Regulators
- Dispute settlement organizations
- Regional / International organizations
- Professional / geographical ICT / Telecom organizations
- Consulting firms
- Universities / Research centers / training institutes
- Financial & Development institutions
- Other entities dealing with ICT / Telecom

Benefits of being an ITU Sector Member

- **Strong influence** on the process how the information and communication sector evolves
- **Increased awareness** of your business priorities
- **Efficient networking:** Direct contact with other key market players
- **Enhanced participation:** Participate in advisory, study and working groups
- **Better access to information:** ITU working documents, discounts on publications, use of free TIES accounts and thematic virtual working spaces

ITU Associates

- An interested entity or organization may join an ITU Sector as an **Associate** and be entitled to take part in the work of a **selected single** Study Group.
- Associates may have access to **documentation** required for their work and may serve as **Rapporteur or Editor**.

Industry Needs

- **Enabling Environment**
 - reduced time, cost for decisions which impact investments
 - independent regulator, clear guidelines, simplified and transparent procedures, open opportunities/level playing field
 - technology neutral policy and regulation in an era of convergence
 - infrastructure sharing (i.e. radio towers)
 - foreign ownership or investment facilitated services
- **Neutral/reliable information**
 - about trends, access, coverage
- **Trained resources**
 - particularly in developing/emerging markets
- **Better understanding**
 - dialogue between governments and business so that concerns reflected in decisions
- **Public & private partnerships**
 - encouragement to implement projects

ITU Responding to Needs

- **Facilitating Enabling Environment**
 - Working with members on policy and regulatory harmonization and guidelines, sharing best practices, developing & updating tools
 - Aim to lower access costs, fuel private sector investment
 - Emerging issues: migration to NGN and VOIP
- **Building Capacity**
 - Centres of Excellence, Internet Training Centres, scholarships, internships, thematic seminars and workshops
- **Analyzing ICT / Telecom trends and collecting statistics**
 - Key ICT market trends, connectivity/access/usage indicators, etc.
- **Providing platform for industry-government dialogue**
 - Neutral space for debate, professional exchange programmes
- **Projects, activities and direct assistance**
 - Ecuting agency for projects, partner match-making, unbiased expert advice

Conclusions

- ITU is an experienced and ready partner
- Our membership is global and diversified
- Sector Members have invaluable opportunities to share experiences, and learn of new business and partnership opportunities
- ITU Sector Member & Associates fees are modest and very competitive

JOIN and PARTNER with ITU NOW!

Thank you for your attention!

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www.itu.int/ITU-D/

Additional information

- Information complementing the main presentation

The digital divide problem

In recent years, as information and communication technologies (ICT) have become the backbone of the global information economy, **increasing attention has focused on the gap in access to ICTs between developed and developing countries.**

This gap has come to be known as the “**digital divide**”: it is multifaceted, with the gap in access to technologies affecting **rural and remote populations, females, children, the elderly, those with health problems and disabilities, ethnic minorities, the illiterate and poorly educated and others both within and between nations.**

Developed versus developing divides

Nevertheless, given that the developing world accounts for more than **80 per cent of global population**, there is still along way to go to reduce the divide. Even if national populations were growing at similar rates, and current ICT growth rates were sustained, it would take at least ten years for this gap to be reduced.

But in reality, **developing country populations are growing faster than developed ones**, and they have a much higher percentage of their population under the age of 15. In reality, therefore, it will take **much longer to bridge the digital divide**.

Developed versus developing divides

Furthermore, given that more than a billion of the world's developing country population lives on less than USD 2 per day, well below the generally accepted minimum level of income needed for ownership and use of ICTs, it is likely that the fundamental nature of the divide will persist unless there is profound change in basic socio-economic conditions.

QUESTION 18-1/2

IMPLEMENTATION ASPECT OF IMT-2000 AND INFORMATION-SHARING ON SYSTEMS BEYOND IMT-2000 FOR DEVELOPING COUNTRIES

TARGET AUDIENCE

Target audience	Developed countries	Developing countries	Least developed countries (LDCs)
Telecom policy-makers	Yes	Yes	Yes
Telecom regulators	Yes	Yes	Yes
Service providers/operators	Yes	Yes	Yes
Manufacturers	Yes	Yes	Yes

SOURCES OF INPUT

- Collection of related technical progress in both ITU-R and ITU-T.
- The ITU publications on IMT-2000 and beyond.
- Relevant Reports of national and/or regional organizations in developing and developed countries
- Experiences on implementation of IMT 2000 networks in developed and developing countries.
- Relevant input from manufacturers.

**PROPOSED STRUCTURE OF FINAL REPORT OF Q18 2/2
(INCLUDING GUIDELINES WHERE PERTINENT)**

PREFACE

SUMMARY

1. DEFINITIONS
2. ABBREVIATIONS / GLOSSARY1
3. INTRODUCTION
4. WAYS OF IMPLEMENTING IMT-2000, USING SATELLITES, AS APPROPRIATE, FOR SOME COUNTRIES AND REGIONS, taking into consideration ITU-R studies on integrated systems of IMT-2000 [as well as hybrid systems].
(Based on Countries experiences and Contributions)
5. KEY ELEMENTS TO BE STUDIED IN ORDER TO PROVIDE EFFICIENT AND COST-EFFECTIVE IMPLEMENTATION OF IMT-2000 AND ITS EVOLUTION IN DEVELOPING COUNTRIES
 - a. KEY ELEMENTS FOR REGULATORS, INCLUDING LICENCING ASPECTS, ON IMPLEMENTING IMT-2000 NETWORKS, SERVICES AND APPLICATIONS (Based preferably on Developed and Developing Countries contributions)
 - b. IMT-2000 SERVICES AND APPLICATIONS, OPPORTUNITIES FOR DEVELOPING COUNTRIES
 - c. ECONOMICS OF IMPLEMENTATION OF IMT-2000
 - i. MARKET ANALYSIS
 - ii. ECONOMIES OF SCALE (including terminals)
 - iii. BUSINESS PLANS AND SERVICES
6. INFORMATION ON THE SPECIFIC IMPACT OF THE IMPLEMENTATION OF IMT-2000 ON WOMEN, YOUTH, INDIGENOUS PEOPLE AND PEOPLE WITH DISABILITIES
6. BIS INFORMATION ON THE SPECIFIC IMPACT OF THE IMPLEMENTATION OF IMT-2000 ON ENVIRONMENTAL ISSUES
7. INFORMATION ON IMT-ADVANCED SYSTEMS
8. COUNTRIES' EXPERIENCES
9. REFERENCES
10. FINAL REMARKS

QUESTION 20-2/2

Examination of access technologies for broadband telecommunications

ITU-D Study Group 2 Question 20-2/2 Broadband Access Technologies

- **The Report is divided into 3 main sections:**

- **1. General Broadband Matters:**

- Social and Economic Benefits
 - Broadband Applications
 - Broadband Deployment

- **2. Technology Matrices**

- Wireline Broadband Access Technologies (ex: DSL)
 - Wireless Broadband Access Technologies
 - Fixed Broadband Wireless Access (ex: IEEE 802.16 2004 standard)
 - Mobile Broadband Wireless Access (ex: ITU approved IMT-2000 standards)
 - Technologies in the Process of Standardization (ex: Canopy Solution)

- **3. Country Experiences**

Revised Question 20-2/2 for the 2006-2010 Study Cycle

- **The following inputs are called for in Q20 for the next ITU-D Study Group period 2006 - 2010:**
 - Collection of developing Member States' requirements through a questionnaire.
 - An assessment of developing countries' experience with broadband access technologies using the same questionnaire referred to above.
 - An update of ITU-T and ITU-R outputs, relevant to broadband access technologies.
 - Contributions of concerned industry on the development of broadband access technologies for both wired and wireless.
 - Contributions on economic factors relevant to the deployment of wired and wireless broadband technologies, this might include information on tariffs, equipment costs, interconnection charges, licensing fees for wireless applications, etc.

Question Q.19-1/2

Strategy for migration from
existing networks to next-
generation (NGN) for developing
countries

Results Anticipated Including Titles of Output Documents and Their Target Dates

The Results and the Target Dates Proposed for the 2006-2010 Period Are Proposed to Be:

DATE	ACTIVITY/EXPECTED OUTPUT	PERSON RESPONSIBLE
September 2007 (SG2 meeting)	a), b), c) and d) first yearly report focusing on case studies and best practices from developing countries as well as developed countries on migration towards NGN	Rapporteur's Group

Results Anticipated Including Titles of Output Documents and Their Target Dates (Cont'd)

DATE	ACTIVITY/EXPECTED OUTPUT	PERSON RESPONSIBLE
Sep-08	a), b), c) and d) second yearly report with draft guidelines for developing countries on migration towards NGN	Rapporteur's Group
Sep-09	a), b), c) and d) Draft final report with guidelines for developing countries on migration towards NGN	Rapporteur's Group
Nov-09	a), b), c) and d) Finalization of Report with guidelines for developing countries on migration towards NGN (1)	Rapporteur's Group

Liaison Required With Other Groups

Question 19-1/2 will liaise closely with related BDT programmes, ITU-T in particular SG13 and ITU-R SGs involved in NGN studies, ITU-D Q.10-2/2, Q.18-1/2, Q.20-2/2 and Q.6-2/1, Q.7-2/1, Q.19-1/1.

Virtual or face-to-face meetings will be held at a minimum of once per year in order to accomplish the work plan

Working Methods

- Concerning the expected outputs, status reports will be presented each year to the Study Group 2 Management Team as well as to the Study Group 2 Plenary Meeting.
- The final Report will be concluded and presented during the September 2009 Study Group Plenary Meeting.

Contributions

- Contributions in response to the work of Question 19-1/2 are invited.
- Contributions should be sent to the Rapporteur's Group.
- Those interested should get in touch with the following; (to have their names included in the distribution list of the Rapporteur's Group) riccardo.passerini@itu.int

ITU Membership

ITU-D Members by Categories, 2007

