



International Telecommunication Union



Introductory Remarks / Keynote Address / ITU Structure

*ITU-BDT Regional Seminar on Broadband
Wireless Access (BWA) for rural and
remote areas for Africa
Yaoundé, Cameroon, 18-21 Sept. 2006*

John Visser, P.Eng.

ITU: Chairman, ITU-T SG 19 Mobile Telecommunication Networks

Nortel: Sr. Mgr., International Network Standards

Phone: +1 613 763 7028

Fax: +1 613 763 2697

Mobile: +1 613 276 6096

Email: jvisser@nortel.com

**ITU-BDT Regional Seminar on Broadband Wireless Access (BWA)
for rural and remote areas for Africa
Yaoundé, Cameroon, 18-21 Sept. 2006**



ITU

Objective and Outline

- Objective
 - Introduce seminar
 - Set stage for understanding ITU's role in global standardization
- Outline
 - Seminar overview
 - ITU structure
 - ITU-R
 - ITU-T
 - ITU-D

18-21 Sep 2006

**ITU-BDT Regional Seminar on Broadband Wireless Access (BWA)
for rural and remote areas for Africa**

2



ITU

What's Life Like

o Today ...

- Most people can't do without their mobile phones
- Content is on DVDs or magazines or books or a local hard-disk
- Contact Lists are by application, device, and individual situation



o In 2010 ...

- Everyone's connected: can't do without being on-line
- The first place people go for content is on-line



o In 2015 ...

- Everyone and everything is connected all the time, everywhere
- The only place people go for content is on-line



Today's technology literate young person is tomorrow's decision maker: our target customer!

ITU-BDT Regional Seminar on Broadband Wireless Access (BWA) for rural and remote areas for Africa

18-21 Sep 2006

3



ITU

Next Generation Access and Networks for Next Generation Users & Services

o today's young person is tomorrow's decision maker

- rising expectations: multimedia services, security, personalization, mobility
- rising ability to pay as economies develop

o "demographic" shifts

- business success depends on communications
- subscribers place high value on mobility ...
- mobile usage strongly correlates with internet usage
- ... and place high value on high speed access

ITU-BDT Regional Seminar on Broadband Wireless Access (BWA) for rural and remote areas for Africa

18-21 Sep 2006

4



ITU

Seminar Overview

Day 1

- Opening
- 1. Introduction to Wireless Broadband
- 2. Broadband Programs and System Implementation
- 3. Regulatory Aspects of Wireless Broadband

Day 2

- 4. International Wireless Broadband Standards
- 5. Broadband Technologies and Solutions

18-21 Sep 2006

ITU-BDT Regional Seminar on Broadband Wireless Access (BWA)
for rural and remote areas for Africa

5



ITU

Seminar Overview

Day 3

- 6. BWA Planning and Implementation
- 7. Fixed Mobile Convergence

Day 4

- 8. 2G to 3G Migration/Evolution - Guidelines for Developing Countries
- Panel Discussion
- Summary and Closing

18-21 Sep 2006

ITU-BDT Regional Seminar on Broadband Wireless Access (BWA)
for rural and remote areas for Africa

6



ITU

ITU is a Global Institution

- o Established 17 May 1865
 - CCIF, CCIT formed in 1924, 1925; merged into CCITT in 1956, became ITU-T in 1992
 - CCIR formed in 1927, became ITU-R in 1992
 - ITU-D created in 1992
- o One of the world's most enduring organizations (Booz Allen Hamilton Study)
 - <http://www.boozallen.com/media/file/143411.pdf>

ITU-BDT Regional Seminar on Broadband Wireless Access (BWA) for rural and remote areas for Africa

18-21 Sep 2006

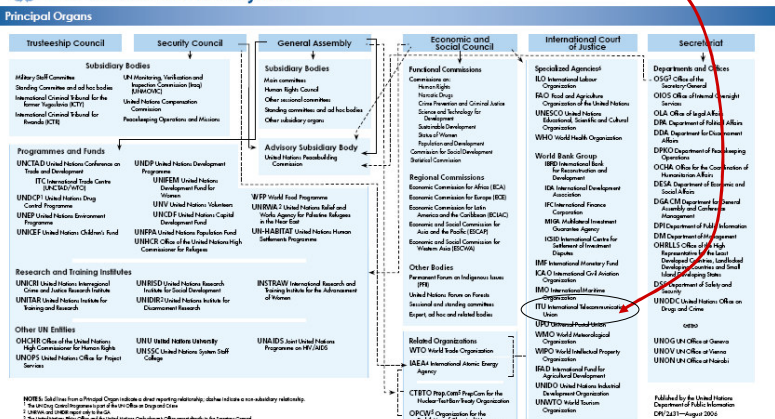
7



ITU

ITU - a Specialized Agency in the UN System

The United Nations System



<http://www.unsystem.org/>

ITU-BDT Regional Seminar on Broadband Wireless Access (BWA) for rural and remote areas for Africa

18-21 Sep 2006

8



ITU Structure

Office of the Secretary-General; 3 sectors with Bureaus:

- Radiocommunication
- Telecommunication Standardization
- Telecommunication Development

Membership

- 191 Member States
- 652 Sector Members
- 112 Associates

Additional details available on ITU web site:



ITU Sector Roles and Mission

- ITU-R: management of radio-frequency spectrum and satellite orbits
- ITU-T: standards covering all fields of telecommunications
- ITU-D: facilitate connectivity and access, foster policy, regulatory and network readiness, and expand human capacity through training programs, formulate financing strategies and e-enable enterprises in developing countries

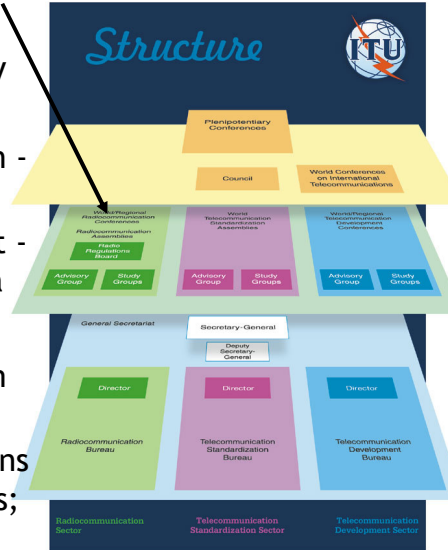


ITU



World Radiocommunication Conference & Radio Assembly

- RA & WRC held every 3-5 years
 - RA & WRC-03: 2 Jun - 4 Jul 2003, Geneva
 - RA & WRC-07: 1 Oct - 2 Nov 2007, Geneva
- Radio Regulations
 - treaty: RF spectrum and satellite slots
 - determines Questions for study by RA, SGs; work priorities



ITU-BDT Regional Seminar on Broadband Wireless Access (BWA) for rural and remote areas for Africa

18-21 Sep 2006

11



ITU

Radio Regulations Board (RRB)


- Approves Rules of Procedure for applying Radio Regulations and registering frequency assignments made by Member States



ITU-BDT Regional Seminar on Broadband Wireless Access (BWA) for rural and remote areas for Africa

18-21 Sep 2006

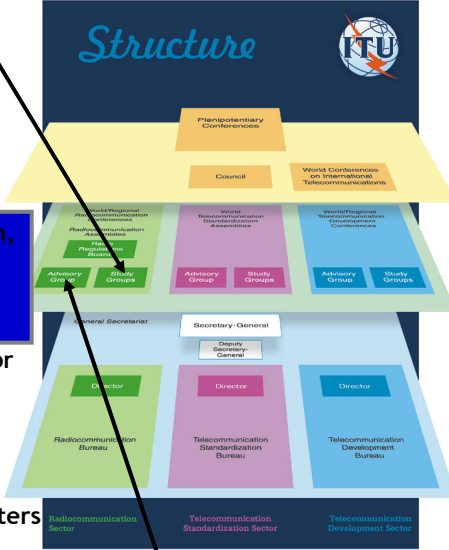
12



ITU

ITU-R Structure - Study Groups

- SG 1 Spectrum management
- SG 3 Radiowave propagation
- SG 4 Fixed-satellite service
- SG 6 Broadcasting services
- SG 7 Science services
- SG 8 Mobile, radiodetermination, amateur and related satellite services
- SG 9 Fixed service
- CCV Coordination Committee for Vocabulary
- CPM Conference Preparatory Meeting
- SC Special Committee on regulatory/procedural matters
- RAG Radio Advisory Group




The diagram illustrates the organizational structure of ITU-R. At the top are the **Plenary Conference** and **World Conference on International Telecommunications**. Below these is the **Council**. The structure then branches into three main sectors: **Radio-communication Sector** (green), **Telecommunication Standardization Sector** (purple), and **Telecommunication Development Sector** (blue). Each sector has a **Director** and a **Bureau**. The Radio-communication Sector includes the **Radio-communication Bureau** and **Study Groups**. The Standardization Sector includes the **Telecommunication Standardization Bureau** and **Study Groups**. The Development Sector includes the **Telecommunication Development Bureau** and **Study Groups**. At the bottom, there are **Advisory Groups** and **Study Groups** for each sector. A line from the text 'ITU-R Structure - Study Groups' points to the 'Study Groups' boxes in the diagram.

18-21 Sep 2006

ITU-BDT Regional Seminar on Broadband Wireless Access (BWA) for rural and remote areas for Africa

13



ITU


ITU Sector Roles and Mission

- ITU-R: management of radio-frequency spectrum and satellite orbits
- ITU-T: standards covering all fields of telecommunications
- ITU-D: facilitate connectivity and access, foster policy, regulatory and network readiness, and expand human capacity through training programs, formulate financing strategies and e-enable enterprises in developing countries


18-21 Sep 2006

ITU-BDT Regional Seminar on Broadband Wireless Access (BWA) for rural and remote areas for Africa


14



ITU



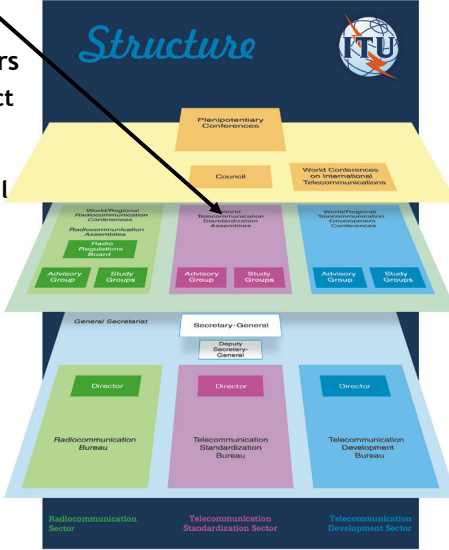
AMNT / WTSA 2000
Montreal, Quebec, Canada



AMNT / WTSA '04
Florianopolis, Brazil

World Telecommunication Standardization Assembly

- Normally held every 4 years
 - WTSA-2000, 27 Sep - 6 Oct 2000, Montreal, Canada
 - WTSA-2004, 5-14 Oct 2004, Florianopolis, Brazil
- Approves ITU-T work program, priorities, time-frames
- Decides on structure of study groups, mandates, Questions




The diagram shows a hierarchical structure. At the top is the Plenary Conference, followed by the Council and World Conferences on International Telecommunications. Below these are three main branches: Radiocommunication, Telecommunication Standardization, and Telecommunication Development. Each branch has a World Regional Administrative Conference, a Study Group, and an Advisory Group. At the bottom are the Radiocommunication Bureau, Telecommunication Standardization Bureau, and Telecommunication Development Bureau, each led by a Director. The entire structure is supported by the Radiocommunication Sector, Telecommunication Standardization Sector, and Telecommunication Development Sector.

ITU-BDT Regional Seminar on Broadband Wireless Access (BWA) for rural and remote areas for Africa

18-21 Sep 2006

15

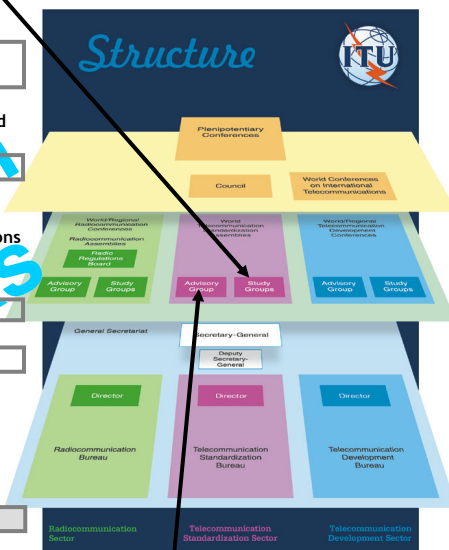


ITU

ITU-T Study Groups, TSAG

- 2 Operational aspects of service provision, networks and performance
- 3 Tariff and accounting principles including related telecommunication economic and policy issues
- 4 Telecommunication management
- 5 Protection against electromagnetic environment effects
- 6 Outside plant and related indoor installations
- 9 Integrated broadband cable networks and television and sound transmission
- 11 Signalling requirements and protocols
- 12 Performance and quality of service
- 13 Next Generation Networks
- 15 Optical and other transport network infrastructures
- 16 Multimedia terminals, systems and applications
- 17 Security, languages & telecommunication software
- 19 Mobile telecommunication networks

TSAG Telecommunication Standardization Advisory Group



The diagram is identical to the one on slide 15, showing the organizational structure of the ITU-T sectors and their respective study groups and advisory groups.

ITU-BDT Regional Seminar on Broadband Wireless Access (BWA) for rural and remote areas for Africa

18-21 Sep 2006

16



ITU

ITU Sector Roles and Mission

- o ITU-R: management of radio-frequency spectrum and satellite orbits
- o ITU-T: standards covering all fields of telecommunications
- o ITU-D: facilitate connectivity and access, foster policy, regulatory and network readiness, and expand human capacity through training programs, formulate financing strategies and e-enable enterprises in developing countries

ITU-BDT Regional Seminar on Broadband Wireless Access (BWA) for rural and remote areas for Africa

18-21 Sep 2006

17



ITU



World Telecommunication Development Conference


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



ITU-BDT Regional Seminar on Broadband Wireless Access (BWA) for rural and remote areas for Africa

18-21 Sep 2006

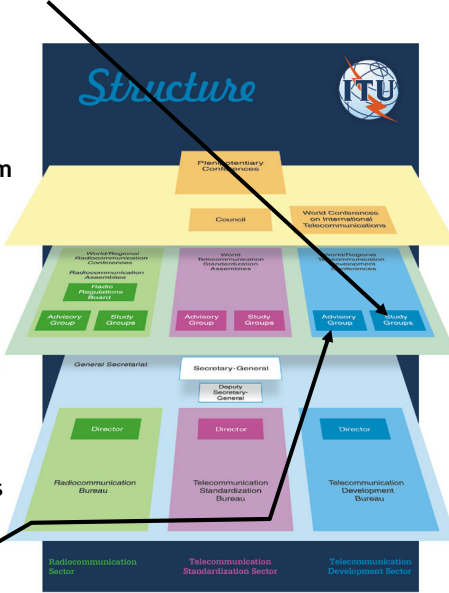
18



ITU

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 diagram illustrates the organizational structure of ITU-D. At the top is the Council, which oversees the World Conference on International Telecommunications. Below this are the World Telecommunication Development Assembly and the World Telecommunication Standardization Assembly. The structure then branches into three main areas: Radiocommunication, Telecommunication Standardization, and Telecommunication Development. Each area has a Director and a Bureau. The TDAG (Advisory Group) is shown as an advisory body within the Telecommunication Development Bureau.

18-21 Sep 2006

ITU-BDT Regional Seminar on Broadband Wireless Access (BWA) for rural and remote areas for Africa

19



ITU

ITU in the Global Standards Community


ITU-T:

- 29 fora/consortia approved for communication process (ITU-T Rec. A.4)
- 29 organizations qualified for including references in ITU-T Recs. (ITU-T Rec. A.5)
- 15 national and regional SDOs approved for cooperation and exchange of information (ITU-T Rec. A.6)

18-21 Sep 2006














ITU-BDT Regional Seminar on Broadband Wireless Access (BWA) for rural and remote areas for Africa

20



ITU


ITU-T Rec. A.6 SDOs

<ul style="list-style-type: none"> ○ ARIB ○ ATIS ○ CEA ○ CCSA ○ ECMA International ○ ETSI ○ IEEE 	      	<ul style="list-style-type: none"> ○ JCTEA ○ NIST ○ SCTE ○ SMPTE ○ TIA ○ TTA ○ TTC      
--	---	---

18-21 Sep 2006

ITU-BDT Regional Seminar on Broadband Wireless Access (BWA)
for rural and remote areas for Africa

21



ITU

Summary

- Today's young person is tomorrow's decision maker: high expectations
 - Mobility and broadband access are key elements of future telecommunications
- ITU is one of the world's most enduring organizations, and for good reasons
 - Well structured to address radio, telecom and development sector needs
- Seminar provides opportunity for experts to share their knowledge, experience and views on the future of the industry with you!

18-21 Sep 2006

ITU-BDT Regional Seminar on Broadband Wireless Access (BWA)
for rural and remote areas for Africa

22



ITU

Thank you!



ITU

Selected Acronyms

2G	Second Generation	P.Eng.	Professional Engineer
3G	Third Generation	RA	Radio Assembly
BDT	Telecommunication Development Bureau	RAG	Radio Advisory Group
CCV	Coordination Committee for Vocabulary	SAG	Telecommunication Standards Advisory Group
CPM	Conference Preparatory Meeting	SC	Special Committee on regulatory/procedural matters
ICT	Information and Communications Technology	SG	Study Group
ITC	International Teletraffic Congress	TDAG	Telecommunication Development Advisory Group
ITU	International Telecommunication Union	WRC	World Radiocommunication Conference
ITU-D	ITU - Development Sector	WTDC	World Telecommunication Development Conference
ITU-R	ITU - Radio Sector	WTSA	World Telecommunication Standardization Assembly
ITU-T	ITU - Telecommunication Standardization Sector		
NGN	Next Generation Network		