ITU introduction: structure, activities and achievements

John Visser, P.Eng.
Chairman, ITU-T SG 19
Nortel Networks

29 April – 2 May 2007   ITU-D/ITU-T NGN Seminar for the Arab Region

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There will always be change ...

- Life is changing
  - We're all more connected, do more on line
- Connectivity is changing
  - From discontinuities to seamless communications
- Communications are changing
  - More consumer oriented, more mobile, more secure
- Megatrends
  - Hyper-connectivity (everything is connected)
  - Network-aware applications and applications-aware networks
  - True Broadband for that essential rich service experience

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ITU is a Global Institution

- 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
- **One of the world's most enduring organizations** (Booz Allen Hamilton Study)
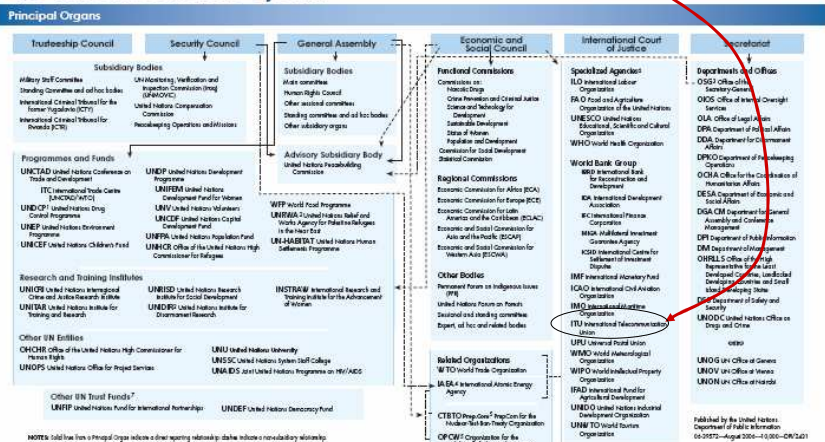 - Because of its responsiveness to change!

http://www.boozallen.com/media/file/143411.pdf

International Telecommunication Union

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ITU – a Specialized Agency in the UN System

www.un.org/aboutun/chart

International Telecommunication Union

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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
    - ITU-D   5

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

ITU PP, Council

Plenipotentiary Conference

- Meets every 4 years
  - 6 - 24 Nov 2006, Antalya, Turkey
  - 23 Sep - 18 Oct 2002, Marrakech, Morocco
- Top policy-making body
  - Sets general policies, adopts four-ye strategic and financial plans
  - Elects senior officials, Council and Radio Regulations Board members
- Council, between PPs:
  - Ensures ITU responds to rapidly changing telecoms environment
  - Implementation of Constitution, Convention, ITRs and RRs

PP '06 instructs ITU to …

Among other things,

- Build confidence and security in use of ICTs
- Strengthen regional presence
- **Assist members in deploying NGN**
- Highlight the contribution of ICTs to development
- Work towards bridging the standardization gap between developing and developed countries

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ITU Sector Roles and Missions

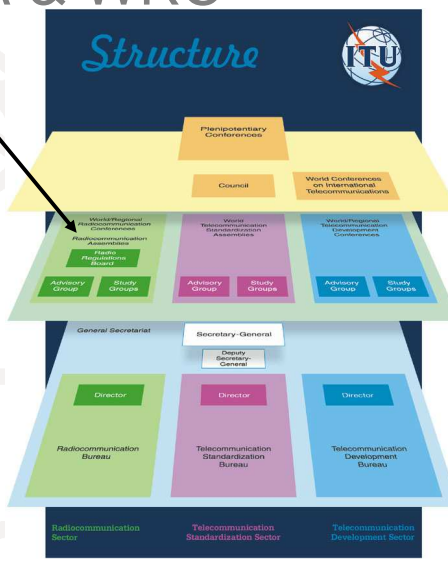|	
• **General Secretariat**	• Coordinates and manages the administrative and financial aspects of the Union's activities
• **ITU-R**	• Coordinates radio communications, radio-frequency spectrum management and wireless services
• **ITU-T**	• Mission is to ensure an efficient and on-time production of 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

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ITU-R: RA & WRC

- 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
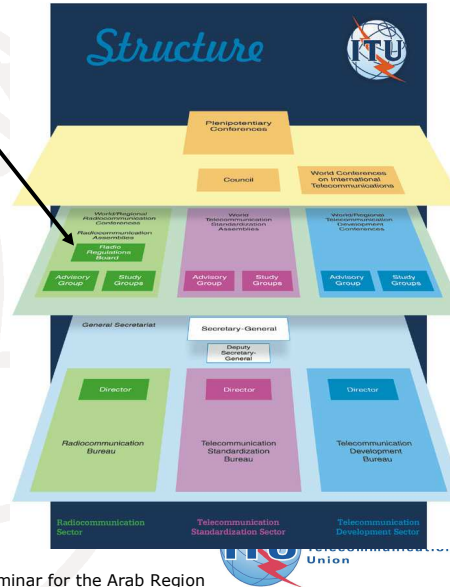 - determines Questions for study by RA, SGs; work priorities

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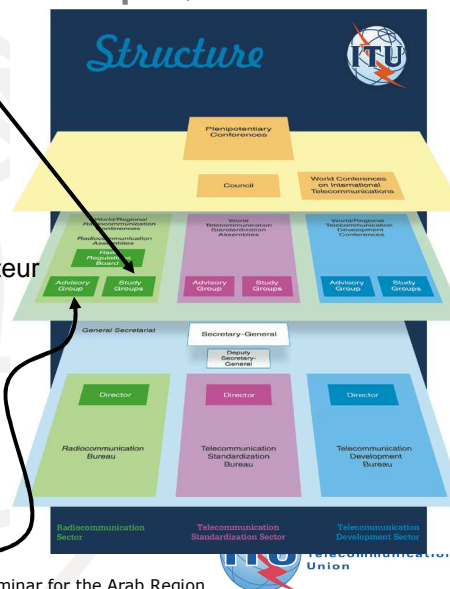
ITU-R: RRB

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

ITU-R: Study Groups, RAG

- 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

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ITU-T: WTSA

- 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
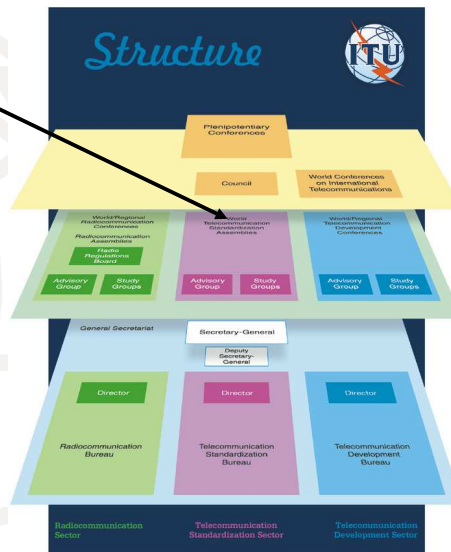
ITU-T: Study Groups, TSAG

2	**Operational aspects of service provision, networks and performance**
3	**Tariff and accounting principles**
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 & other transport network infrastructures**
16	**Multimedia terminals, systems and applications**
17	**Security, languages & telecommunication software**
19	**Mobile telecommunication networks**

TSAG Telecom Standardization Advisory Group

Next Generation Networks (watermark)
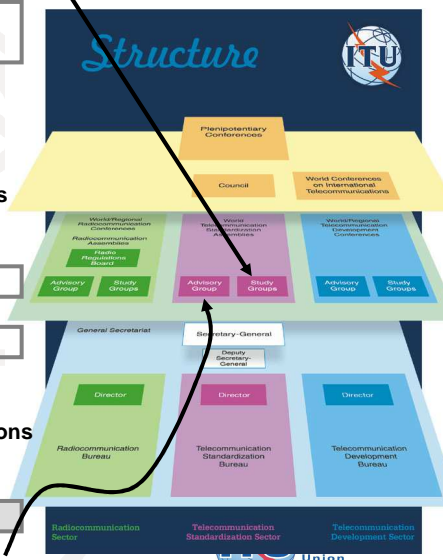
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ITU-T Hot Topics

- **Next Generation Networks (NGN)**
- IPTV
- Home networking
- Cybersecurity including identity management (IdM)
- Ubiquitous networks
- Next generation multimedia conferencing
- Video-coding
- Broadband access
- Packet based transport
- Fibre optics

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ITU-T Focus Groups

- **Next Generation Networks**
  - Formed in response to industry needs
  - Transitioned to NGN-GSI post-WTSA-2004
- Identity Management
- From/In/To Cars Communication
- IPTV
- Security Baseline for Network Operators
- NGN Management
- Open Communications Architecture Forum

www.itu.int/ITU-T/ngn

ITU-T Products, Process

- Approx. 210 new and updated Recommendations approved every year
- Approx. 95% approved by AAP
  - policy related Recs. use TAP
  - TAP: nominal 9 month approval cycle
- AAP approval time average: 9 weeks, as short as 5
  - cut approval time from >2 years, also saves $Ms
- >3100 ITU-T Recommendations are in force
- 50% of contributions to ITU-T work are from Asia

ITU-T in the Global Standards Community

ITU-T:

- Wherever appropriate, ITU-T references outputs of other standards bodies rather than duplicate work
- Good cooperation and collaboration are essential
  - 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)

ITU-T Rec. A.6 SDOs

- **ARIB**
- **ATIS**
- **CEA**
- **CCSA**
- **ECMA International**
- **ETSI**
- **IEEE**

- **JCTEA**
- **NIST**
- **SCTE**
- **SMPTE**
- **TIA**
- **TTA**
- **TTC**

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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
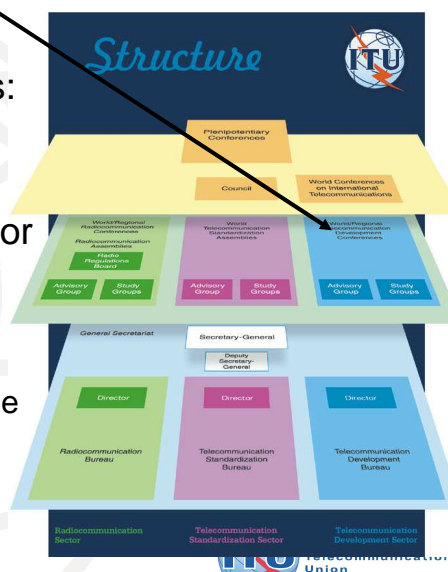
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ITU-D: Study Groups, TDAG

- **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**
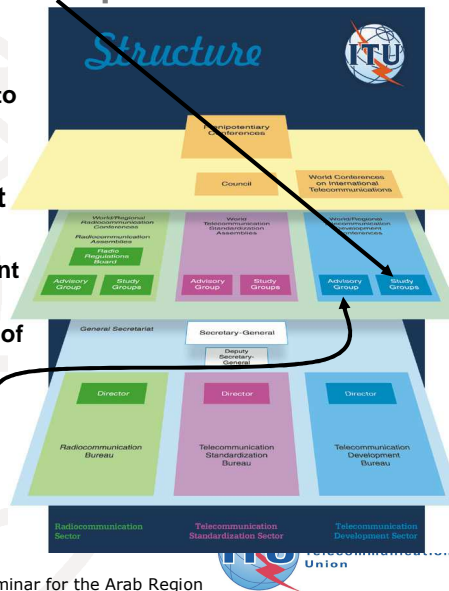
Summary

- **Today's young person is tomorrow's decision maker**: high expectations
  - Mobility, seamless applications and ubiquitous broadband access are key elements of future ICTs
- **ITU is well structured to address radio, telecom and development sector needs**
  - Global standards cooperation a hallmark
  - One of the world's most enduring organizations
- **This seminar provides opportunity for experts to share their knowledge, experience and views** on the future of the ICT **with you!**

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	SDO	Standards Development Organization
ITU	International Telecommunication Union	TDAG	Telecommunication Development Advisory Group
ITU-D	ITU - Development Sector	WRC	World Radiocommunication Conference
ITU-R	ITU - Radio Sector	WTDC	World Telecommunication Development Conference
ITU-T	ITU - Telecommunication Standardization Sector	WTSA	World Telecommunication Standardization Assembly
NGN	Next Generation Network		

Thank you!

John Visser, P.Eng.

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

• **Nortel: Sr. Mgr., International Network Standards**

Tel: +1 613 763 7028
Fax: +1 613 763 2697
Mob: +1 613 276 6096
Emai   jvisser@nortel.com

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