



ITU-T standardization and coordination

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ISTF – 3 November 2011

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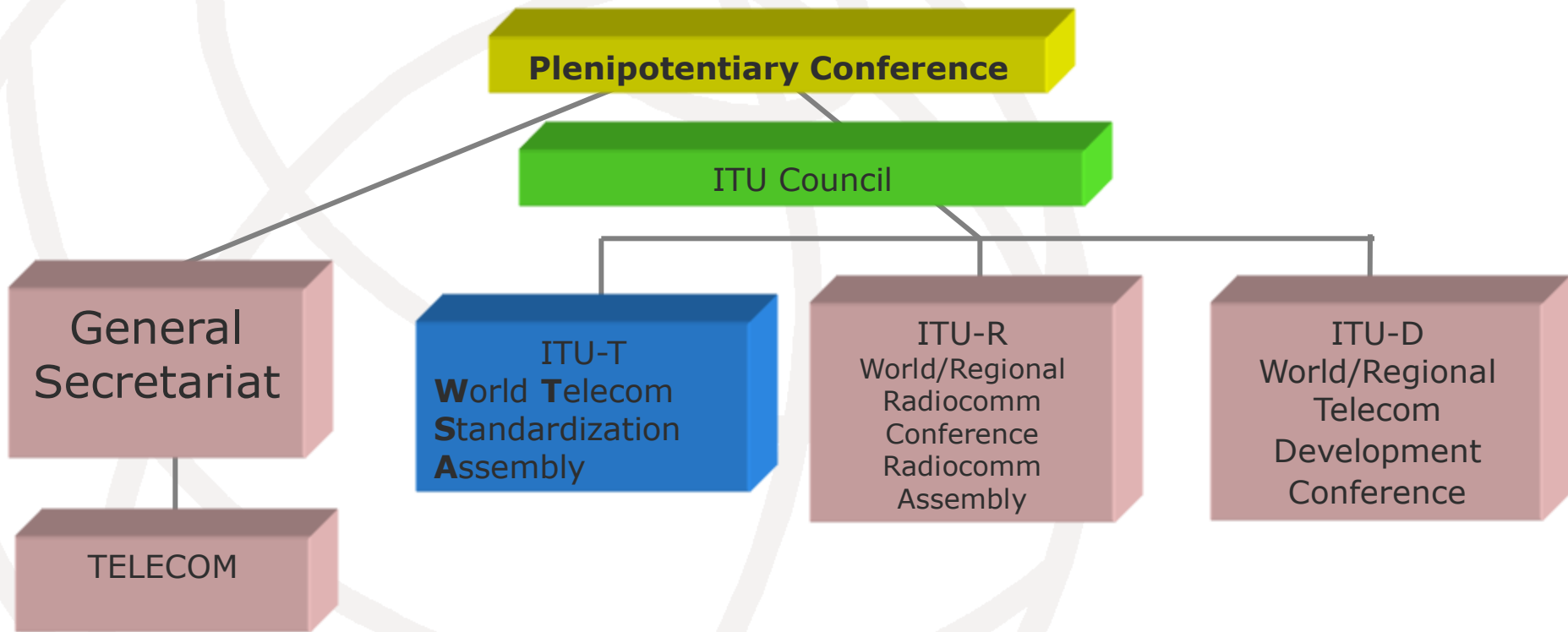
ITU Membership

- Member States: **192 governments**
- Sector Members **559 private sector**
 - ITU-T Sector membership fee: **31,800 CHF** (~USD)
- Associates **154 private sector**
 - have right to participate in one Study Group only
 - Associate membership fee: **10,600 CHF** (~USD)
- Today, 95% of the work in ITU-T is done by the private sector (Sector Members and Associates)



ITU Structure

Oldest UN specialized agency (founded in 1865)



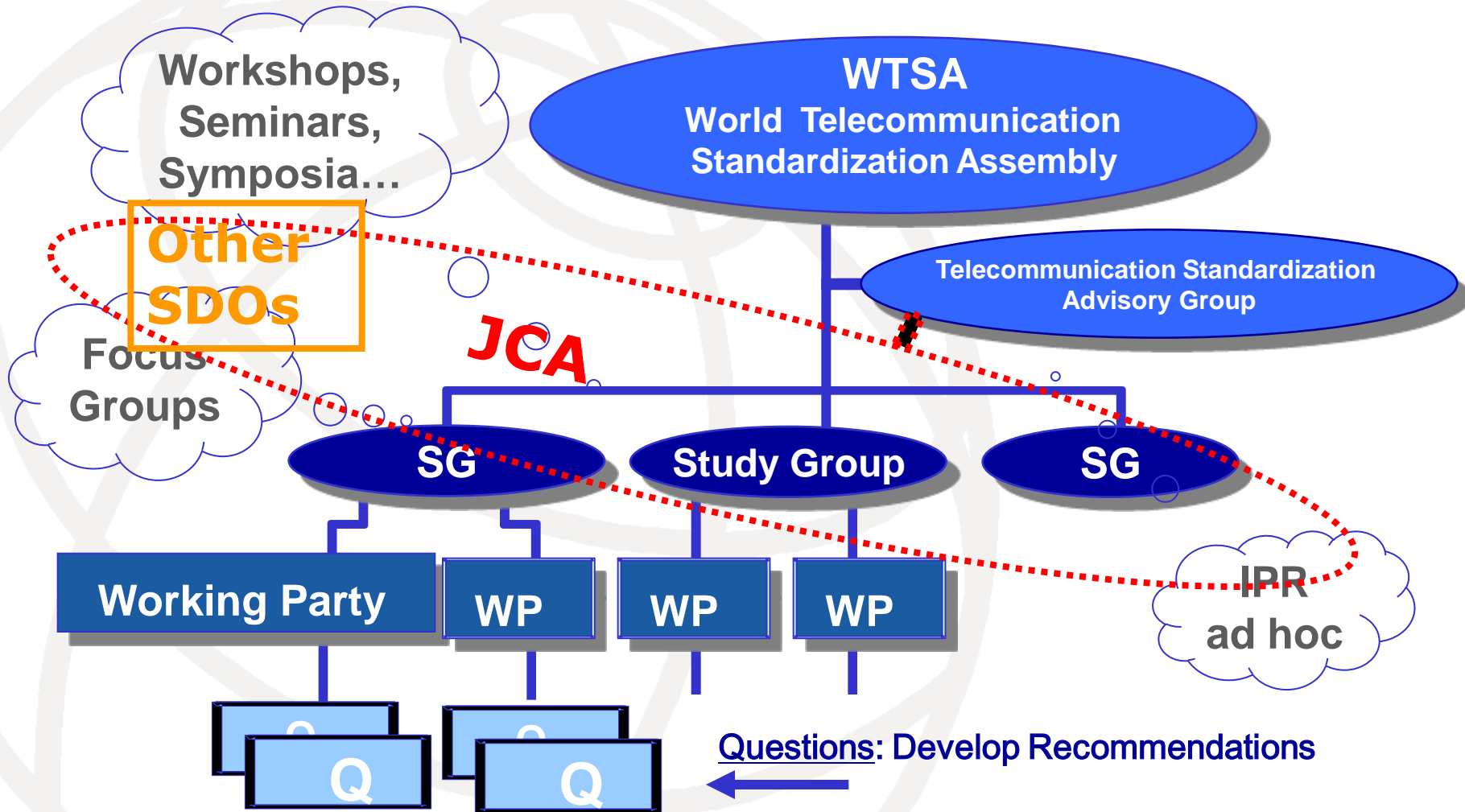


ITU-T in a Nutshell

- ITU-T Product: Recommendations (= “standards”)
 - Freely available to the public
- Work (mostly) done in Study Groups (10 of them)
- Unique partnership of private sector & government
- Truly global
- Consensus decisions
- Very flexible
- Fast procedures, transparent procedures
- Brand name
- Interoperability events / ITU-T Conformity database
- Common Patent Policy ITU-T/ITU-R/ISO/IEC



ITU-T Working Structure





Work in Study Groups

- SG Face-to-face meeting cycle every 6 – 9 months
 - Paperless meetings (electronic working methods)
 - Encourage remote participation (web-conferencing, email)

- More frequent meetings are:
 - Rapporteur meetings to deal with specific Questions (electronic or face-to-face meetings as frequently as once a month)
 - Working Party meetings



ITU Secretariat Services

- Dedicated “Counsellor” per SG:
 - Provide administrative support with technical knowledge (engineer)
 - Manager for meeting logistics
 - Responsible for quality of the Recommendations (ITU is publishing house)
 - Responsible for website (parts in 6 languages)
 - Technical aspects of SG-related Workshops



Current Study Groups 1/2

- SG2 - Operational aspects of service provision and telecommunications management
- SG3 - Tariff and accounting principles including related telecommunication economic and policy issues
- SG5 - Environment and climate change
- SG9 - Television and sound transmission and integrated broadband cable networks
- SG11 - Signalling requirements, protocols and test specifications
- SG12 - Performance, QoS and QoE



Current Study Groups 2/2

- SG13 - Future networks including mobile and NGN
- SG15 - Optical transport networks and access network infrastructures
- SG16 - Multimedia coding, systems and applications
- SG17 - Security



ITU-T Study Group 15

Optical transport networks and access network infrastructures, systems, equipment, optical fibres and cables, and their related installation, maintenance, test, instrumentation and measurement techniques, and control plane technologies to enable the evolution toward intelligent transport networks.



SG15 Working Parties

- **WP1/15** Transport aspects of Access networks and home networking
- **WP2/15** Optical access/transport network technologies and physical infrastructures
- **WP3/15** Transport network structures



Q13/15 Network Synchronization and Time Distribution Performance

Network synchronization performance specifications are essential for successful operation and integration of digital transmission networks and associated switching and signalling systems.

Network timing performance studies are needed to determine the feasibility and most effective means of implementing a time reference distribution service.



Work in Focus Groups

- Works on a **well-defined topic**
- Work in a scheduled **time-frame**
- Establishes **its own working methods**
- **Non-ITU Members** can participate
- **Output** → **“ITU-T Specification”**
(not Recommendations!)
 - However, output of FG can be input to a study group to make it an ITU-T Recommendation



Current Focus Groups

- Focus Group on **Smart Grid**
 - collect and document information and concepts that would be helpful for developing Recommendations to support Smart Grid from a telecommunication perspective.
 - IEC, NIST, ZIGBEE, IEEE-SA, ETSI, EPRI, HGI, OpenSG, WBCSD, Bluetooth SIG
- Focus Group on **Cloud Computing**
- Focus Group on **Car Communication.**
- Focus Group on **Future Networks**
- Focus Group on **Driver Distraction**
- Focus Group on **Audiovisual Media Accessibility**



Joint Coordination Activities

- Currently **11** JCAs (www.itu.int/ITU-T/jca)
- **Management tool** when subject spans more than one study group
- **For coordination** and planning
 - Technical work done by the study groups
- **External organizations** can join a JCA



Current Joint Coordination Activities

- ICT and climate change (JCA-ICT&CC)
- Telecom Management (JCA-Mgt)
- Accessibility and Human factors (JCA-AHF)
- Identity Management (JCA-IdM)
- *Network Aspects of Identification Systems (including RFID) (JCA-NID)*
- IPTV (JCA-IPTV)
- Conformance and Interoperability Testing (JCA-CIT)
- Home Networking (JCA-HN)
- Next Generation Networks (JCA-NGN)
- Internet of Things (JCA-IoT)
- ICT and Climate Change (JCA-ICT&CC)



World Standards Cooperation: ISO, IEC, ITU

- Established in 2001
- Joint initiatives: **common text, common patent policy, joint workshops, joint education & training**
- Regular formal and informal contact of ISO, IEC, ITU leadership
- Goal: strengthen and advance the voluntary consensus-based international standards systems of ITU, ISO, and IEC
- Avoid duplication and overlap of work
- ITU-T Leadership meeting with ISO/IEC JTC 1



Collaboration with Major SDOs

- **Global Standards Collaboration** (15th , 09/2010, China)
 - Members: ITU-T, ITU-R, ATIS, ARIB, CCSA, ETSI, ISACC, TIA, TTA, TTC, Communications Alliance of Australia
- MoU between **ITU** and **ETSI; IEEE Com Soc**
- MoU on e-business **ISO, IEC, ITU, UN/ECE**
- Some SDOs listed as **Sector Members** (IEEE,ETSI,IETF)
- **Joint workshops** (including **Kaleidoscope**)
- Leadership meetings: **ISO/IEC JTC1 & IETF**
- ITU-T and **ICANN**
 - (Regular secretariat meetings, Reinhard Scholl, TSB Deputy Director was member of ICANN Board)
- ITU-T and **IETF**
 - Collaboration agreement A.sup3 and RFC 3356
- **Global Standards Symposium** (1st at WTSA 2008)
- **CTO Group** high-level, private sector executives meetings



Partnership and External Cooperation

Recommendation ITU-T A.4

- Procedure to approve/establish communication process with Forums/Consortia

Recommendation ITU-T A.5

- Procedure to qualify organizations for including references in ITU-T Recommendations

Recommendation ITU-T A.6

- Procedure to approve cooperation and exchange of information with national and regional standards development organizations



ITU-T and Academia



How academia has participated so far

- Discrete participation in SG activities
 - Some individuals from academia have leadership roles in ITU-T (Editors, Rapporteurs, chairs of technical committees)
- Participation in Focus Groups and Technology Watch
- Participation in ITU-T workshops
- Regional activities (e.g. ITU Centres of Excellence)

- Recently introduced membership category for academia: **Reduced fee for academia CHF3975 (less for universities in developing countries)**
- 17 Academic members have joined since the membership category was added late 2010 (including UNH Interoperability Laboratory)



Why Involving Academia?

- Increase academic participation in ITU
 - Students of today are the people who will shape the technology world of tomorrow
- Capture new work (innovations in ICT) for the standardization marketplace.
 - Universities and R&D institutions are an important pool of innovation.



Academia & ICT standardization





Kaleidoscope Events

- Series of academic conferences
 - International Organizing Committee (10-20 experts)
 - Call for Papers
 - International Programme Committee (more than 100 Experts)
 - Paper review process → double-blind / peer-review
 - IEEE Com Soc (technical co-sponsor)
 - Proceedings distributed via IEEE Xplore
 - 3 best papers award (10'000 USD) event sponsors

- **Bridging academia, research & ITU-T standardization activities for discussion on technological innovation and its socio-economic implications**



www.itu.int/ITU-T

