Overview of ITU-T

ITU-T - Leader in ICTs and Telecommunications Global Standards

Paolo Rosa

Head, Workshops and Promotion Division
Telecommunication
Standardization
Bureau

International
Telecommunication
Union

Committed to connecting the world

ITU Structure

Plenipotentiary Conference

ITU Council

General Secretariat	**ITU-T** World Telecommunication Standardization Assembly	**ITU-R** World Radiocommunication Conference Radiocommunication Assembly	**ITU-D** World Telecommunication Development Conference
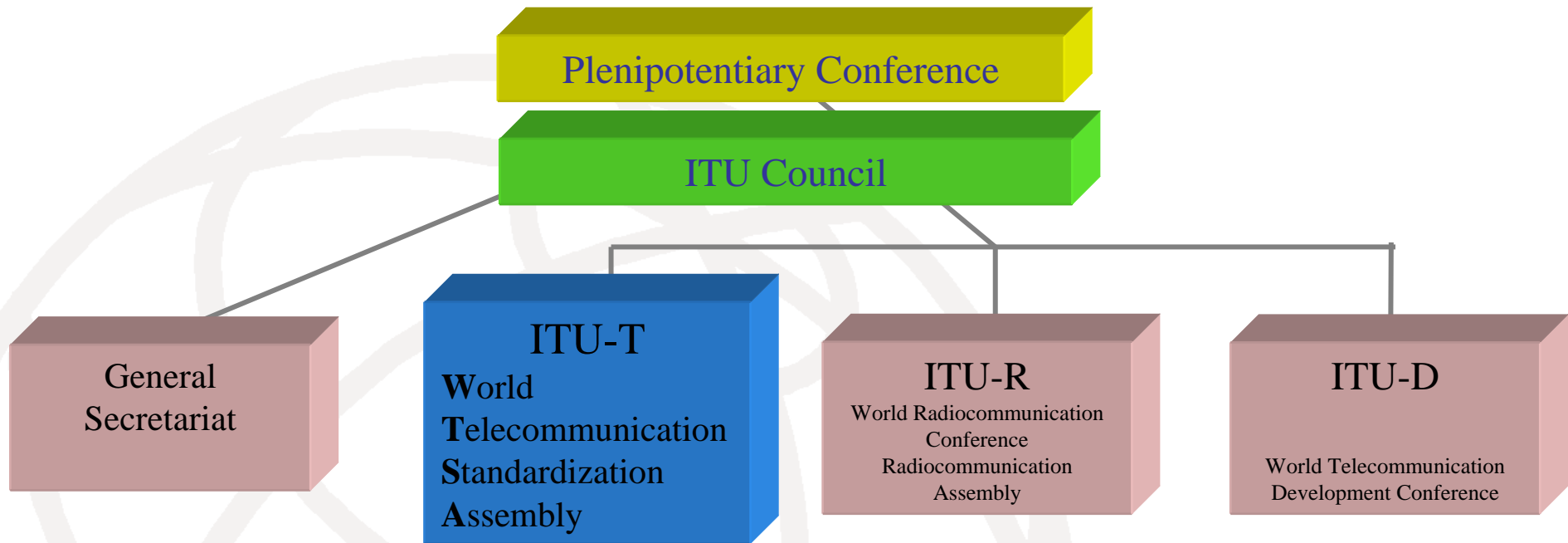
ITU-T: Telecommunication standardization on a world-wide basis on technical, operating and tariff, Questions. TSB: ITU-T Secretariat

ITU-R: Radio communications and wireless

ITU-D: Use and deployment of telecom networks and services in developing countries and countries with economy in transition

Gen. Sec.: Coordinates the Union's activities and the overall management of the union

International Telecommunication Union
Committed to connecting the world

Regional working

- 5 ITU Regional Offices:
  - Africa Region
  - Americas Region
  - Arab Region
  - Asia & Pacific Region
  - Europe & CIS Region

- 6 Regional Organisations:
  - APT
  - Arab Group
  - ATU
  - CEPT
  - CITEL
  - RCC

- Various regional groups

International Telecommunication Union

Committed to connecting the world

ITU Membership

- **Member States** (voluntary financial contributions)
  - » ITU **191**

- **Sector Members** (usual fee 31,500 CHF per annum)
  - » **ITU-T** **303** ⎫
  - » ITU-R 277 ⎬ **560**
  - » ITU-D 299 ⎭

Total ITU-T 424

- **Associates** (10,600 CHF per annum)
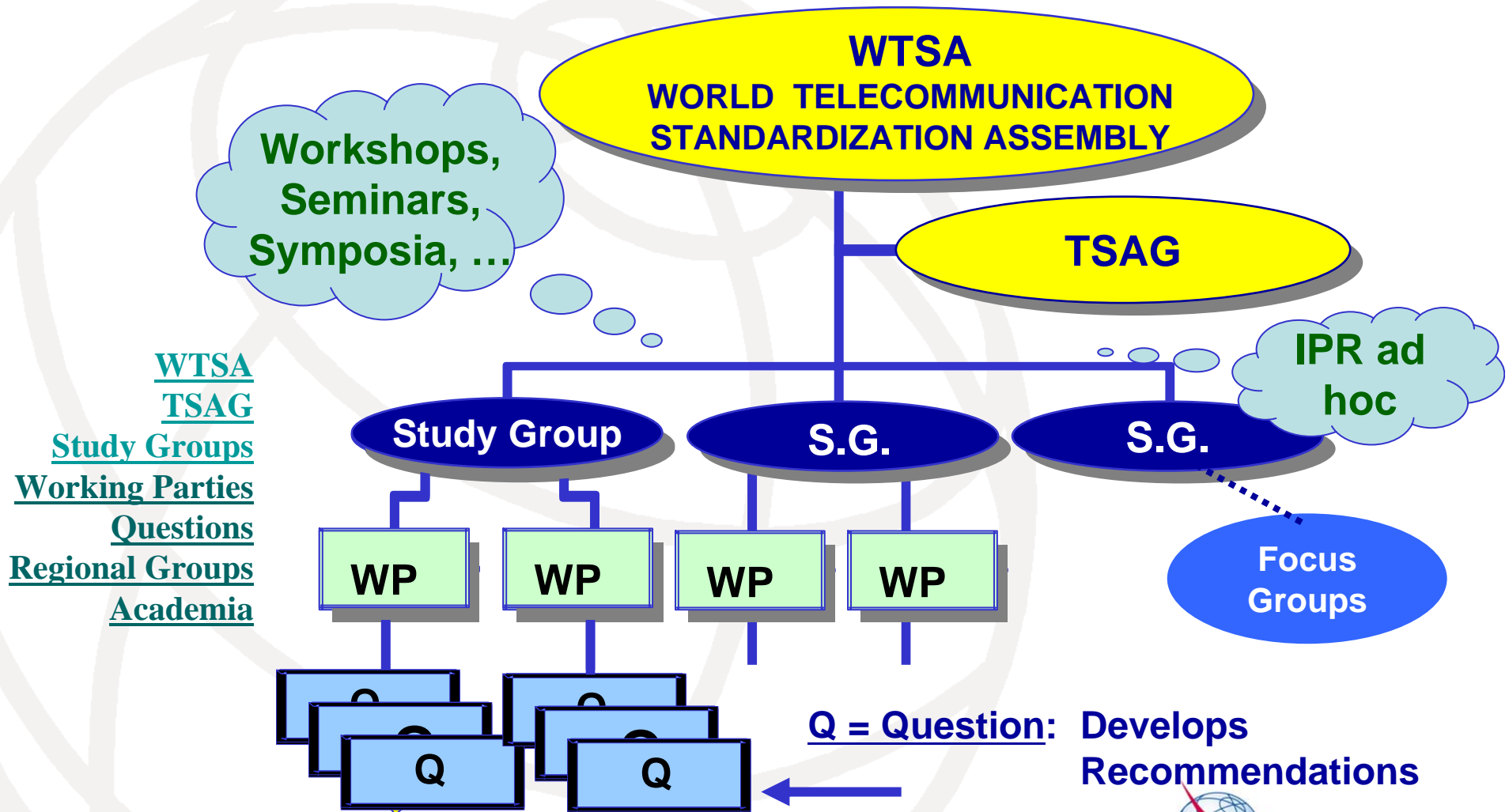 - » **ITU-T** **121** ⎫
  - » ITU-R 27 ⎬ **155**
  - » ITU-D 7 ⎭

Total: 715

ITU-T Structure (SG)

WTSA
WORLD TELECOMMUNICATION STANDARDIZATION ASSEMBLY

TSAG

Workshops, Seminars, Symposia, …

IPR ad hoc

WTSA
TSAG
Study Groups
Working Parties
Questions
Regional Groups
Academia

Study Group

S.G.

S.G.

Focus Groups

WP   WP   WP   WP

Q   Q

Q   Q

Q = Question: Develops Recommendations

International Telecommunication Union
Committed to connecting the world

Why ITU-T is different

- Unique partnership of private sector (Sector Members) & government (Member States)
  - Today, 95% of work is done by private sector
  - Remaining 5% due to regulatory impact
- Truly global and not-discriminatory standards
- Working together for consensus decisions
- Very flexible to start new initiatives
- Fast & transparent procedures
- Brand name
- IPR Policy and copyright

www.itu.int/ITU-T

tsbpromo@itu.int

International Telecommunication Union

Committed to connecting the world

ITU-T is fast

- **start** work: 1 day / few weeks (2-4yrs)

- **develop** work: from weeks to 2-3 yrs (2-3 yrs)

- **approve** standards: 2 months (4 yrs)

    - Alternative Approval Process (= AAP)
      for technical standards (= 95%+ of work)

- **publish** work: couple of days after approval(2-4 yrs)

ITU-T product

- Around 210 new and updated Recommendations are produced each year

- Approx. 90% approved under AAP rules

    – 9 ½ weeks average approval time

- AAP cut approval time by 80 to 90% to as little as five weeks

- More than 3300 ITU-T Recommendations are in force

ITU International Telecommunication Union

Committed to connecting the world

Free Recommendations

- From the beginning of 2007, ITU-T Recommendations are available without charge for a trial period.

- With only a small number of exceptions all in-force ITU-T Recommendations are available in PDF form via a simple mouse click.

itu.int/ITU-T/publications/recs.html

International
Telecommunication
Union

Committed to connecting the world

Why participate?

- Only UN agency dealing with ICT standards in a public-private in an open, transparent, flexible and global consensus based forum

- Outreach to 191 countries

- High credibility in emerging markets especially Africa, China and more recently India

- Opportunities for exercising corporate social responsibilities

- Excellent meeting facilities, convenient location

- Fast working

What are we doing then?

International
Telecommunication
Union

ITU

Committed to connecting the world

Dynamic Environment

- Looking towards **technologies of the day after**

- **Organizing** SG, WP and Rapporteurs **meetings**, **workshops** on standards worldwide to **involve more the experts from the regions** also assisting in the creation of **Regional Groups**

- Increase opportunities to create **Focus Groups** for very hot issues urged by the market & new topics

- Establish **GSI environment** to provide opportunities to work on the same subject encourage osmosis among the experts study groups

- Improve dissemination of information, communication   and **promotion**, adoption of specific e-tools: the "Lighthouse", webinars, podcast, e-flash, Youtube, press, events...

- Looking towards the **standards of the future** cooperating with Academia and R&D institutions

ITU — International Telecommunication Union — Committed to connecting the world

ITU-T hot topics

- Next generation network (NGN), IPTV

- Home networking

- Cybersecurity & identity management (IdM)

- Ubiquitous networks

- Next generation multimedia conferencing, videocoding

- Broadband access and transport network, optical fibres

- Packet based transport

- Accessibility

- ICT & climate change

ITU-T's Focus Group concept
(Recommendation A.7)

- Create forum-like entities as an "arms-length" organization under ITU-T Study Group

- Goal:
  - Encourage participation of non-members / members of other organizations (forums) / experts / individuals

- Organizational freedom to establish its own rules
  - can keep own brand name and at the same time benefit from ITU's branding, have its own deliverables

ITU-T Focus Groups

FS-VDSL: the first ITU-T FG (2002) agreed in Boulder

In operation

- NGN Management

- From/In/To Cars Communication

Concluded activities

- Identity Management IdM => GSI

- IPTV not only entertainment => GSI

- NGN => GSI

- Security Baseline for Network Operators

- Open Communications Architecture Forum (OCAF)

- …

The Global Standards Initiative
Concept

Hot topics work is carried forward by ITU-T's Global Standards Initiative (GSI) environment, which encompasses all the relevant study item work across ITU-T Study Groups. It is implemented by co-located meetings of concerned Study Groups and Rapporteur Groups from the various study groups to jointly progress the work under the auspices of the GSI.

The goals are:

•to address the market needs for standards and to produce global standards

•to further strengthen the ITU-T's leading role amongst the other SDOs

•to keep visibility of the work spread between different technical groups in ITU-T

Global Standard Initiative: GSI

Regional Groups

Set up on a case-by-case basis cooperating with regional organizations and to improve the level of participation by the regions in standardization activities.

ITU-T secretariat (TSB) support

Workshops: some activities in 2008

Past

- The Fully Networked Car – A Workshop including Demonstrations on Information and Communication Technologies in Motor Vehicles Geneva, 5 – 7 March 2008

Coming

- ITU Symposium 2 on ICTs and Climate Change, London, United Kingdom, 17 – 18 June 2008

- ITU-T/IEEE workshop on the next generation optical access Geneva, 19 – 20 June 2008

- ITU Workshop: "ICT Standards and Intellectual Property Rights", 1 July 2008

- Workshop on "From Speech to Audio: bandwidth extension, binaural perception", 10-12 Sep 2008

- …

http://itu.int/ITU-T/worksem
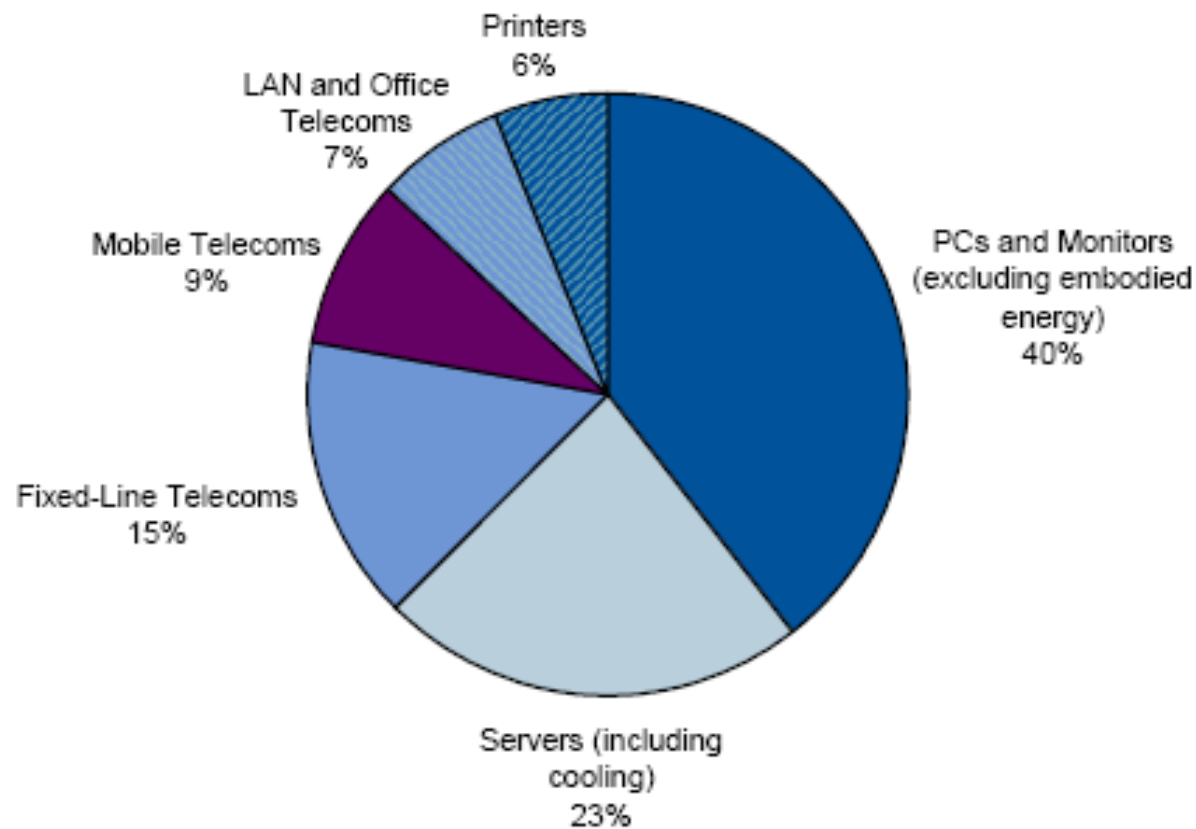
"The day after"

ITU-T is ready !

Technology Watch

- **Technology Watch** surveys the ICT environment for new study topics

- **Technology Watch Briefing Reports** provide an up-to-date assessment of promising new technologies. Recent papers:

  - Remote collaboration tools

  - Ubiquitous Sensor Networks

  - ICTs and Climate Change

  - Telepresence

  - High-performance video-conferencing

  - Intelligent Transport Systems

- **Technology Watch Symposium:**

  - Networked robotics, Seoul July 2008

ICTs and global warming

Printers 6%

LAN and Office Telecoms 7%

Mobile Telecoms 9%

Fixed-Line Telecoms 15%

Servers (including cooling) 23%

PCs and Monitors (excluding embodied energy) 40%

Source: Gartner Group (2007)
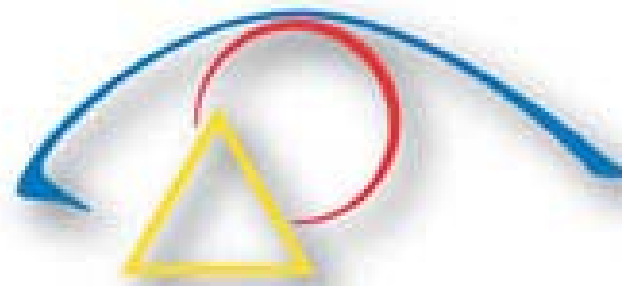
- ICTs (excluding broadcasting) contribute an estimated 2-2.5% of global Greenhouse Gas emissions
- Around 0.9 tonnes GtCO2e in 2007
- Telecoms contributed around one quarter of this total
- But think : Where we would have been without ICTs?

ITU International Telecommunication Union

Committed to connecting the world

Cooperation between ITU-T and Universities

Given the knowledge that many new technologies find life in the minds of the academic and research communities, ITU is increasingly looking to attract more involvement from the world's universities and other academic institutions

Following the Consultation meeting held in January 2007 an informal discussion group has been formed to discuss ways to increase this cooperation with participation of ITU-T and academia, which is open to all interested parties. To participate in the discussion please join the mailing list by sending a request to tsbuni@itu.int

(see http://itu.int/ITU-T/uni)

Direct participation mechanisms in ITU-T work

- Invited experts
  - Cannot submit written proposals
  - Contribution source not acknowledged
- Sponsored by members (countries and private sector)
  - No membership fee
  - Contribution source not acknowledged
  - Level of participation limited according to national processes or company rules
- Associate members
  - Contribution source properly acknowledged
  - Participation limited to one SG; can have only a limited number of roles
  - Membership fee (CHF 10600 per year)
- Sector members
  - Participation in any SG of the sector x higher fee (CHF 31800 per year)
- Membership in special groups: Focus Groups; Joint groups with ISO/IEC; Coordination activity on RFID

ITU International Telecommunication Union
Committed to connecting the world

Some opportunities already offered by ITU-T

- Open and free participation in meetings of some Focus Groups
- Free participation by invitation to SG and Rapporteur' groups meetings as experts
- Free participation in Workshops and Seminars
- Available web-based collaboration tool (Technology Watch)
- Free Recommendations on line
- Possibility to provide secretariat support
- Availability to co-organize events
- Broker for research project sponsors
- Internships (e.g. visiting professors, students, researchers)

ITU International Telecommunication Union

Committed to connecting the world

Kaleidoscope Conferences

In order to solicit standardization work on emerging technologies, ITU-T organizes multi-topic events (Kaleidoscopic Conferences) with the aim to enhance participation of Academia and research organizations in ITU-T activities

The first "Innovation in NGN took place on 12-13 May 2008 (see: http://itu.int/ITU-T/uni/kaleidoscope)

One place to share knowledge, procedures, experiences and results by experts, scientists, visionaries and academics from all over the world

Unique networking environment in which to discover new standardization areas and new technologies those can be input into ITU-T Study Groups and Technology Watch-Correspondence Group

**Innovations in NGN – Future Network and Services
An ITU-T Kaleidoscope Event Technically
co-sponsored by IEEE Communications Society**

Geneva 12-13 May 2008

Track 1: NGN architecture evolution

Track 2: Application and services over the NGN

Track 3: Social, economic and policy issues in the ubiquitous societies

Awards

Awards will be granted to selected best papers, as judged by the organizing and programme committee. Details will be announced later.

http://itu.int/ITU-T/uni/kaleidoscope.
kaleidoscope@itu.int.

Breaking news: more than 220 participants, from 48 countries

Conclusions

Big effort in offering the membership a more and more transparent, dynamic, innovating, evolving, global and unique public/private standardization environment, ready to listen to the needs of the regions:

ITU-T:

The place for ICT global standards
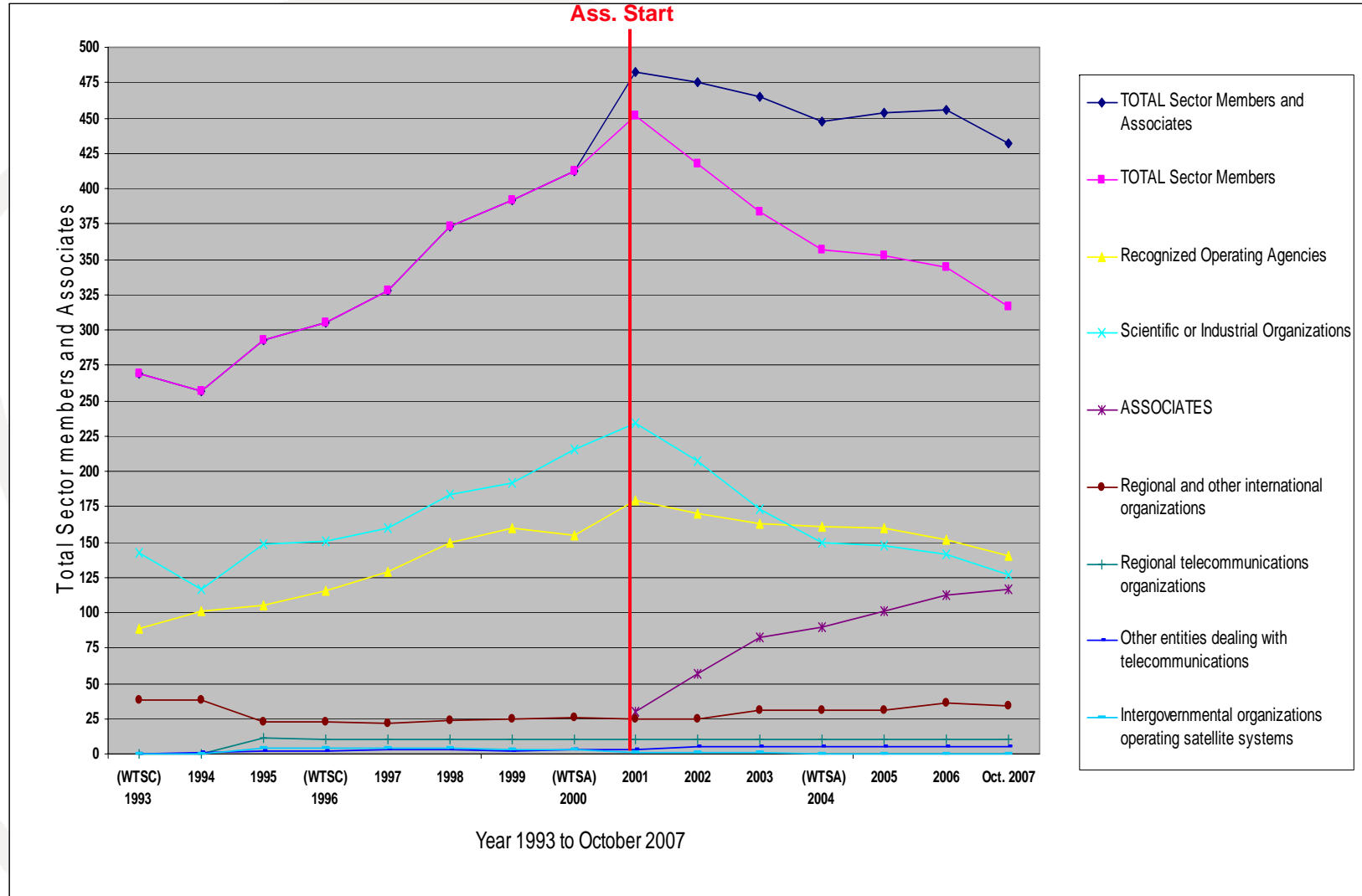
Obrigado

Muchas Gracias

Thank you

ITU
Committed to Connecting the World

Paolo ROSA
Head, Workshop and Promotion Division
ITU - Telecommunication Standardization Bureau
tsbpromo@itu.int

ITU International Telecommunication Union

Committed to connecting the world

Additional Slides

Membership trend

Work highlights 2007

- Restructuring of the secretariat (TSB) for increased efficiency

- 13% more standards published, 39% increase in meetings, 5% reduction in staff

- Free ITU-T Recommendations (3 million downloaded)

- The first set of global standards for IPTV

- First in series of regional Forum on bridging standards gap

- Direct liaison with 3GPP established

- ITU member of ICANN Board

- Joint IETF/ITU-T leadership meeting

- Common ITU/ISO/IEC IPR policy and guidelines adopted

- Global NGN standards progressed rapidly (30 Recommendations: requirements, architecture, OAM, signalling protocols, resource control, NNI signalling, NGN testing, and security)

ITU International Telecommunication Union

Committed to connecting the world

Why Academia?

- Recognition of importance of capturing new work to ensure continued relevance in the standardization marketplace.

- Universities are an important and largely untouched pool of innovation.
  - Beyond Universities, small businesses (like start-ups) and R&D institutions could bring new work on emerging technologies. Initially, discussions are focused on Universities

- Students of today are the technology movers and shakers of tomorrow

Innovations in NGN – Future Network and Services An ITU-T Kaleidoscope Event Technically co-sponsored by IEEE Communications Society

- More than 136 expert paper reviewers from academia and industry worldwide

- More than 140 scientific papers received

- Accepted 32 Lecture papers plus 22 Poster papers for presentation at the Conference

- Acceptances rate around 30%

- 75% of papers from academic institutions

http://itu.int/ITU-T/uni/kaleidoscope
kaleidoscope@itu.int.

The first Kaleidoscope event "Innovation in NGN"

Aim:

– Bring together all the new and visionary ideas on the future of NGN

– A place where the pre-standard environment can find an opportunity to mix up and share different opinions, experiences and views

– Professors, scientists, engineers, students, journalists, writers, science fiction visionaries should be invited

– Creation of a yearly ITU-T/Academia "Innovation in Telecommunications" prize

The role of ICT standards development organizations
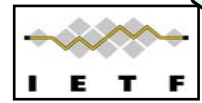
Discussion to review Rec. A.1

A GSI is not a working entity but is a name for the package of work, created under proposal of a study group and to be conducted through co-located meetings of the involved study groups and Rapporteur groups.

It could be organized under the umbrella of a coordinated work plan managed by a study group through Joint Coordination Activities and Technical and Strategic Review process as relevant.