ITU-T new environment: ready for the day after

ITU at the heart of international Geneva

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Regional Seminar on NGN Standardization and Development
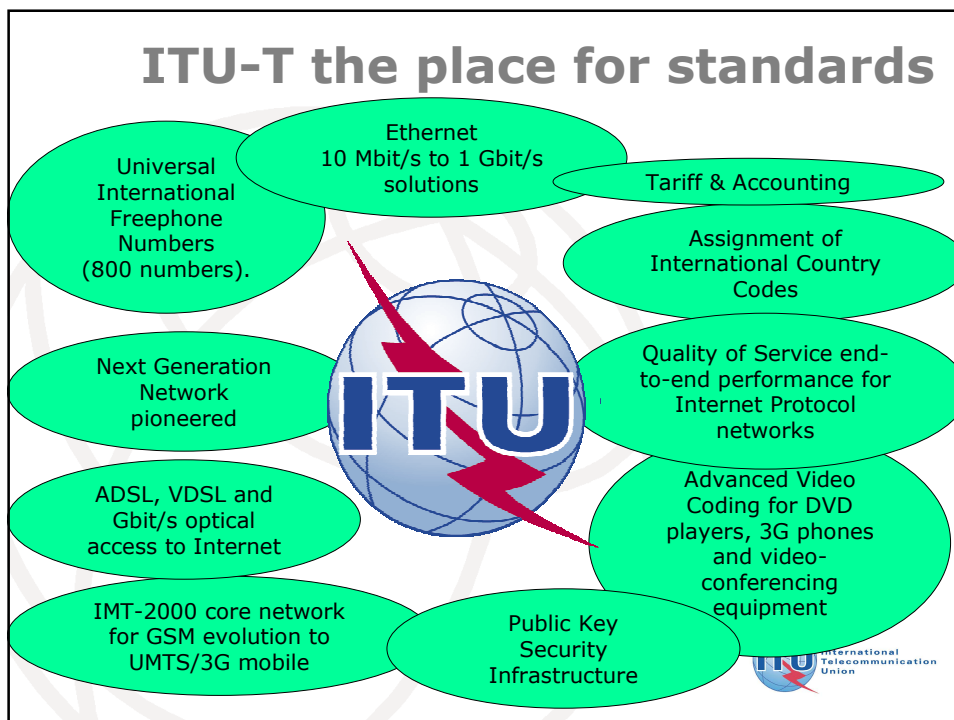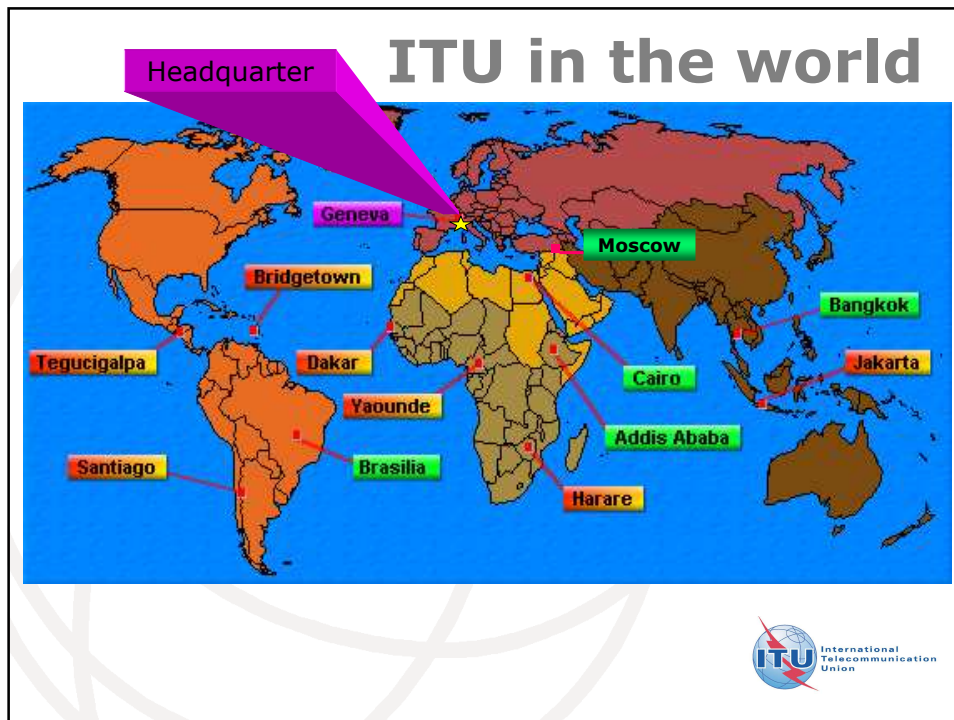
Bahrain (29 April-2 May 2007)
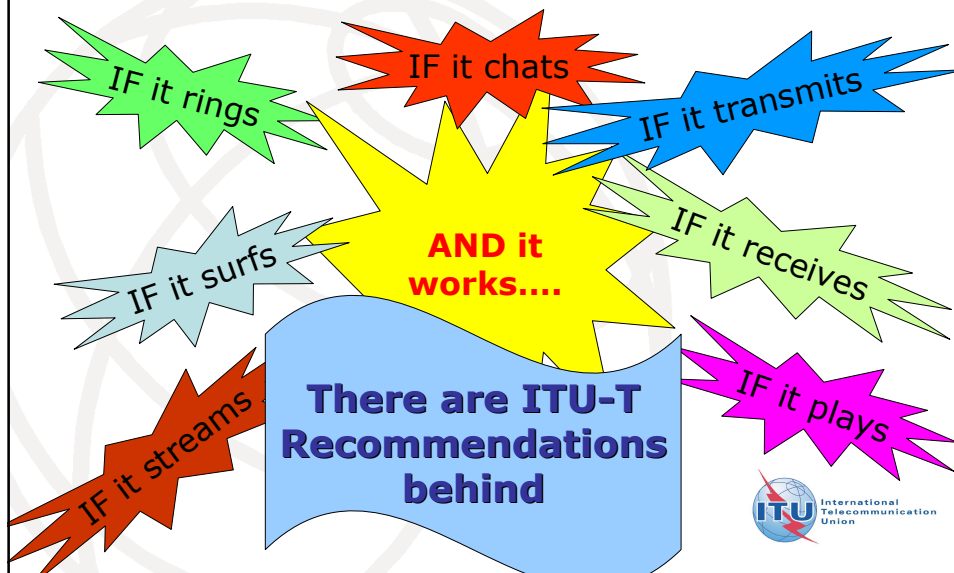
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Outline

- The ITU-T the place for ICT standards
- PP-06 and WTSA-04 for developing countries
- What are we doing then?
- Ready for the day after

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ITU in the world

Headquarter

Geneva · Moscow · Bridgetown · Bangkok · Tegucigalpa · Dakar · Jakarta · Cairo · Yaounde · Addis Ababa · Santiago · Brasilia · Harare

ITU-T the place for standards

- Universal International Freephone Numbers (800 numbers).
- Ethernet 10 Mbit/s to 1 Gbit/s solutions
- Tariff & Accounting
- Assignment of International Country Codes
- Next Generation Network pioneered
- Quality of Service end-to-end performance for Internet Protocol networks
- ADSL, VDSL and Gbit/s optical access to Internet
- Advanced Video Coding for DVD players, 3G phones and video-conferencing equipment
- IMT-2000 core network for GSM evolution to UMTS/3G mobile
- Public Key Security Infrastructure

The "ITU" inside

IF it rings

IF it chats

IF it transmits

IF it surfs

AND it works....

IF it receives

IF it streams

There are ITU-T Recommendations behind

IF it plays

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Why ITU-T is different

1. 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
2. Truly global and not-discriminatory standards
3. Working together for consensus decisions
4. Very flexible to start new initiatives
5. Fast & transparent procedures
6. Brand name
7. IPR Policy and copyright

www.itu.int/ITU-T

standards@itu.int

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Is the standardization work still worthwhile?

- Standards work is demanding, difficult and time-consuming activity, but…

- Standards work is stimulating, creative and rewarding

- Standards work brings benefits to you, to your country and region, to your personal lives

- It is indeed – very worthwhile and this is why we are here !

PP-06 for developing countries

- Strengthen **regional presence** (Res.25)
  - provide information on activities and expertise
  - strengthen cooperation and coordination, sectors, regional offices, regional organizations
- Bridge the **standardization gap** (Res. 123).
- Build confidence and **security** in the use of information and communication technologies (Res.71/Annex 1)
- Participate in international discussions on internationalized **Internet Domain Names** including **multilingualism** issues (cooperation also with WIPO and UNESCO) (Res. 133)
- Continue studies to meet the needs of **public protection**, early warning and disaster relief (Res.136)

PP-06 for developing countries

- **Assist members**: appropriate solutions for affordable NGN planning, deployment, operation and maintenance (Res.137)

- Highlight the contribution of **ICT**s to overall development (Res.139)

- Review the **International Telecommunication Regulations** (1988) to consider emerging telecoms policy and regulatory issues, new technologies and services (Res.146)

- Continue studies on **IP-based networks** (Res.101)

- ITU-T: organize a **Worldwide Standardization Roundtable and Coordination Meeting** (Res.122)

Worldwide Standardization Roundtable and Coordination Meeting (future WTSAs)

- To be held the day before next ITU World Telecommunication Standardization Assembly (WTSA), October 2008
- Aims to bring together all standards makers
- Possible themes:
  - Reducing the standardization gap
  - Improving collaboration
- Consultation started on themes and organisation: tsagroundtable@itu.int

Major outcomes of WTSA-2004
for developing countries

- Enhanced telecommunication standardization to interests of DCs (Res 17)
- Assistance to regional tariff groups (Res 26)
- Action Plan from Study Groups to Bridging the Standardization Gap (Res 44)
- Creation of **Regional Groups** (Res 54)
- Action Plan for TDR and Early Warning
- Strengthening electronic working methods for the work of ITU-T (Res.32)
- **Regional preparations for WTSAs (Res.43)**

WTSA-04 Res. 17:
Telecommunication standardization in relation to the interests of developing countries

- Cooperation TSB-BDT-Regional Offices & Organizations

- Hold ITU-T meetings in the regions

- Encourage participation of developing countries

- Regional groups addressing studies on VoIP, mobile technology, convergence, multimedia, etc.

WTSA-04 Res. 17

- Identify new emerging technologies and their impact on developing countries

- Assistance in formulating draft Questions and in making proposals

- Promote standardization activities:
  - Information meetings
  - New Sector Members

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WTSA-04 Res. 17

- Characteristics of telecommunication environment in developing countries for standards, planning, services, systems, operation, tariffs and maintenance

- Provide standards solutions/options relevant to developing countries wherever possible

- Liaise when developing new or revised ITU-T Recommendations on specific needs and requirements of developing countries to broaden the appeal and their applicability

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WTSA-04 Resolution 44:
Bridging the standardization gap between developing and developed countries

- Action plan from ITU-T SGs for the implementation of Res. 123

- ITU-T Study Groups to be actively involved in the implementation of the programmes set forth in the action plan to improve standard making capabilities

- Members to consider the objectives set out in the action plan

- Fundraising as partnership and voluntary contributions

Hot issues for WTSA-2008

- Study Group structure
- Use of "other groups" & Regional Groups
- WSIS implementation to "Connect the World"
- Impact of convergence
- Cooperation with other bodies, e.g., ITU-R, ITU-D, SDOs and forums
- Increasing participation by developing countries
- Cybersecurity, NGN, Ubiquitous networks and services, "Internet" (spam, IDN, ccTLD), ITRs, ITU finances

What are we doing then?

Implementing Resolutions for benefiting developing countries

- Organizing SG, WP and Rapporteurs meetings, workshops on standards in the regions 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

- Improve dissemination of information, communication and promotion, adoption of specific e-tools: the "Lighthouse", webinars, podcast, e-flash, …

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

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WSIS Mandates of ITU

(Geneva 2003,Tunisia, 2005)

Action Line	Possible Moderators/Facilitators
C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development	ECOSOC/UN Regional Commissions/ITU
C2. Information and communication infrastructure	ITU
C3. Access to information and knowledge	ITU/UNESCO
C4. Capacity building	UNDP/UNESCO/ITU/ UNCTAD
C5. Building confidence and security in the use of ICTs	ITU
C6. Enabling environment	ITU/UNDP/UN REGIONAL COMMISSIONS/UNCTAD
C7. ICT Applications E-government, business, learning, health Employment, environment, agriculture, science	UNDP/UNCTAD/WTO/UPU/UNIDO UNESCO/ICAO/FAO/UNEP/WHO/ ILO/UN-habitat/WMO/ITU
C8. Cultural diversity and identity, linguistic diversity and local content	UNESCO
C9. Media	UNESCO
C10. Ethical dimensions of the Information Society	UNESCO/ECOSOC
C11. International and regional cooperation	UN REGIONAL COMMISSIONS/ UNDP/ITU/UNESCO/ECOSOC

Partners to Connect the World (PCW)

A global multi-stakeholder effort to consolidate and scale up existing development-oriented connectivity projects and stimulate new partnerships to achieve the goal of connecting all communities by 2015.

Three key areas of activities within primary " building blocks"

1) Enabling Environment: Governance and policy and regulatory frameworks, standardization, intellectual property protection.
2) Infrastructure and Readiness: ICT network infrastructure, capacity building, raising national awareness
3) Applications and Services: e-health, e-learning, disaster preparedness and response, e-governance, gender-focused and children

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TDR – EW web resources

- ITU-R Publications
  → www.itu.int/publications/sector.aspx?menu=categories&sector=1
- ITU-T Recommendations
  → www.itu.int/ITU-T/publications/recs.html
- Main ITU emergency telecoms page
  → www.itu.int/emergencytelecoms
- ITU-T emergency telecoms page
  → www.itu.int/ITU-T/emergencytelecoms/
- ISDR Platform for Promotion of EW
  → http://www.unisdr.org/ppew/
- Tampere Convention
  → http://www.reliefweb.int/telecoms/tampere/

SGs Action Plan for the regions

- Definition in the ITU-T work programme (of DC requests and allocation to SGs to develop specific Recommendations

- Appoint liaison officers to ITU-D sector study groups on specific issues as individuated at the WTDC-06, in Doha

- Disseminate information to DC-CET experts on ongoing studies and future developments. Participation of experts to the BDT training courses to DC-ECT on standardization

SGs Action Plan for the Regions

- Promotion and Implementation of ITU-T Recommendations.
- National standards as basis and support to BDT efforts regarding applications of ITU-T Recommendations. Development of handbooks and guidelines.
- Organization of workshops and tutorials.
- General support to the involvement of DC-CET in ITU-T standardization
- Establishment of Flagship Groups and of Regional Groups. Involvement of the Centres of Excellence

Facilitating the understanding

- Many actions have been taken

    - Summary of Recommendations have been added
    - Manual for beginners has been developed
    - Development of a Guide to developing countries.
    - Regional Meeting, Seminar and workshop
    - Close contact with ITU Regional Office, CoE
    - TSB staff nominated as contact point for the Region
    - Availability of experts for Q&A
    - Website have been improved
    - What could be added?
    - What Developing Countries could do?

    - **What else?**

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:

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

The Lighthouse
www.itu.int/ITU-T/lighthouse

**Advanced technological Web-based
Communication Centre for members and non-members**

- Friendly portal for an easy access to the ITU-T standards world
- Live news feed and HOT topics with blogs and RSS facilities
- Discussion Forum for developing countries, academia and R&D
- Highlight ITU-T events, Study Groups activities, workshops
- Voice to the regions, ITU Regional Offices and Centres of Excellence
- Technology Watch activities and Correspondence Groups as a free platform, to share views, ideas and standardization needs on new emerging technologies.
- Academia Initiative and kaleidoscope events

ITU-T fully involved with a strong presence in future critical areas

- Next Generation Network (NGN), Network infrastructure: optical transport, network management, signalling, performance and QoS, EMC, architecture, interoperability, etc.
- Interchangeability of fixed-mobile services
- RFID: thousands of applications
- IPTV, video coding, broadband access, multimedia and conferencing
- Home networking
- Cybersecurity and Identity Management (IdM)
- Mobility
- Ubiquitous networks
- Convergence, convergence and convergence !

NGN is a "convergent" animal

Europe   Africa

ITU NGN

America   Asia

ITU-T SG 13: Rec. Y.2001
Definition of NGN

A **NGN** is a **packet-based network** able to provide telecommunication services and able to make use of **multiple broadband, QoS-enabled transport technologies** and in which **service-related functions** are **independent** from underlying **transport-related technologies**. It enables **unfettered access** for users to networks and to competing service providers and/or services of their choice. It supports **generalized mobility** which will allow consistent and ubiquitous provision of services to users.

Challenges
- Multimedia
- Generalized mobility
- Convergence
- Integrity
- Multi-layer orientation
- Open character

NEXT GENERATION NETWORK

NGN-JRG → FG NGN → NGN-GSI GLOBAL STANDARDS INITIATIVE ITU-T

SG: 19   SG: 11, 13, 19, 2, 4, 12, 16, 17

ITU-T Towards the future: The Academia initiative

- Consultation meeting with Universities (Jan 2007)
  - Identify ways of cooperation, participation, creation of a pre-standard environment (http://itu.int/ITU-T/cooperation/universities)

- ITU-T Academia Informal Group (IAIG)

- The kaleidoscope idea

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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

Why ITU?

- Networking opportunities with most of the world's major ICT companies (ITU Sector Members).
- Exciting opportunity for any university to be part of an international team creating international standards
- Global exposure to new techniques from academia
- Access to ITU resources and events
- Possibility to have new, emerging technologies adopted as internationally recognized ITU standards
- Foster in academia a more standards-oriented culture that is based on a solid, global, open and transparent, consensus-driven environment

IAIG: the ITU-T / Academia Informal Group

- Consultation meeting Jan 2007

- ITU-T Academia Informal Group
  - Implement agreements of consultation meeting
  - Future looking group
  - Open: just send request to tsbuni@itu.int

Yearly kaleidoscope events
Innovation in NGN: 12 – 13 May 2008

- 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

- Proposal for creation of a yearly ITU-T/Academia "Innovation in Telecommunications" prize

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
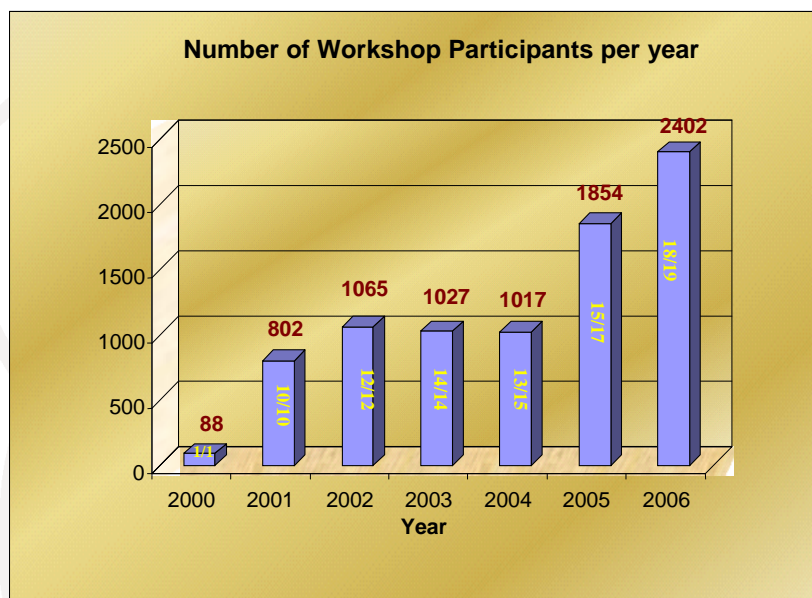

Existing ITU-T Focus Groups

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

- Identity Management IdM - trusted attributes of an entity
- From/In/To Cars Communication
- IPTV not only entertainment
- Security Baseline for Network Operators
- NGN Management
- Open Communications Architecture Forum (OCAF)
- …

IPTV standardization

Global standardization lead by ITU-T FG

Focus Group on IPTV Mission:
Coordinate and promote the development of global IPTV standards taking into account the existing work of the ITU study groups as well as Standards Developing Organizations, Fora and Consortia worldwide

- IPTV services are a major opportunity that requires and justifies infrastructure investment
- IPTV success depends on doing much more than just providing video-on-demand
- There are challenges but these can be overcome
- Global standards will derive market revenue

Focus group on IPTV next meeting:
The next meeting of FG IPTV will be held from 7 to 11 May 2007 in Bled, Slovenia ….

For more info: http://itu.int/ITU-T/IPTV

IPTV & mass customization of services

Source: "Liberate Technologies and Herve Ytheza" © 2001

Workshops activities

Number of Workshop Participants per year

Year	Participants	Label
2000	88	1/1
2001	802	10/10
2002	1065	12/12
2003	1027	14/14
2004	1017	13/15
2005	1854	15/17
2006	2402	18/19

Upcoming workshops 2007

- **Ensuring cybersecurity**: Standards and technical solutions
  Hanoi, Vietnam, 8-10 May

- **Joint ITU-T/IEEE workshop on Carrier-class Ethernet**
  Geneva, 31 May – 1 June

- **Multimedia in NGN**: Global Perspectives on Standards
  and Business
  Geneva, 10–11 September

- **Bridging the Standardization Gap** in Developing Countries
  Rwanda, 2-4 October

- **Bridging the Standardization Gap** in Developing Countries
  Argentina, October

Arab countries' requirements

- Develop Questions of particular interest for Arab Countries
  - On what issues Arab Countries need ITU-T Recommendations?
  - Adoption at WTSA or during SG/TSAG meetings?
- Discuss the issue in the region?
  - Establishment of Regional Groups
- Submit contributions
  - How to submit? Individual or after regional consultation?

ITU-T and TSB for DCs

- TSB restructured to make greater resource available for workshops
- TSB task force to develop an Action Plan on the implementation of all WTSA Res and PP Res related to T sector especially Res 123
- workshops on T Sector issues will be organized jointly by TSB and BDT, in close collaboration with the area offices and the regional organizations.
- Hold regional events covering all the hot topics in standardization and making use of TSB expertise or the expertise of experts participating in the ITU-T study groups and focus groups, and explaining how to get involved. Encourage invitations – sponsorship from industry.
- Assistance with formation of regional groups with help of regional offices and organizations.
- Assign TSB experts to each ITU-D SG Question related to Telecom standards who will participate in the SG meetings and the rapporteur meetings as needed.
- Create a focal point on the T Sector website on bridging the standardization gap
- Hold WTSA-08 in a developing country

Thank you

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ITU - Telecommunication Standardization Bureau

Mr. Paolo Rosa graduated in physics the 1974 in Rome, Italy worked in the R&D Inst. PT Ministry 1974 - 1996.

He worked on optical communications and represented the Italian administration in national and international standards organizations becoming expert and senior advisor for the Italian Foreign Office, the UNDP and ITU He is author of several papers

In 1997 he joined the ITU-T secretariat in Geneva as Counselor for Study Groups 6 and SG 15.
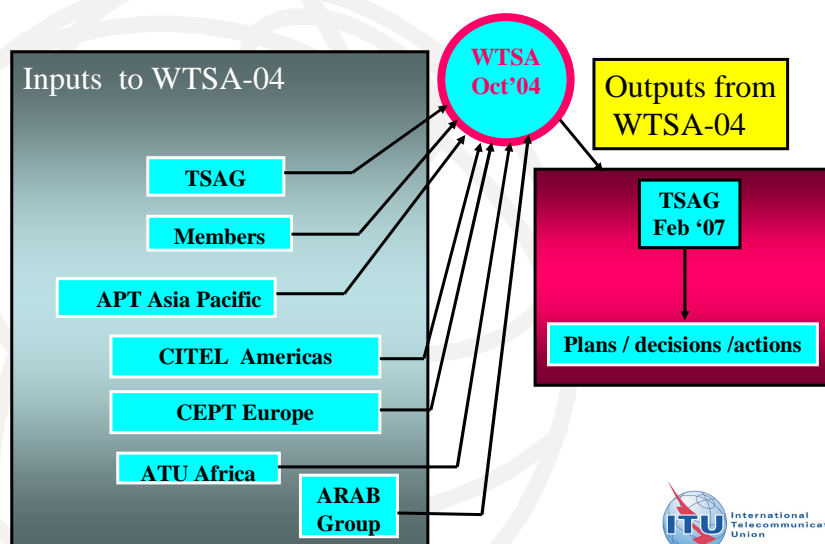
Since 2005 he is the Head of the Strategy, Workshop and Promotion Division of the ITU-T in Geneva.

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•Additional Slides

Before-During-After WTSA-04

Inputs to WTSA-04

WTSA Oct'04

Outputs from WTSA-04

- TSAG
- Members
- APT Asia Pacific
- CITEL Americas
- CEPT Europe
- ATU Africa
- ARAB Group

TSAG Feb '07

Plans / decisions /actions

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ITU-T is fast

- **start** work: 1 day / few weeks (from 2-4 yrs)
- **develop** work: from weeks to 2-3 yrs (from 2-3 yrs)
- **approve** standards: 2 months (from 4 yrs)
  - » "Speedy Gonzalez approval procedure" (= AAP) for technical standards (=95% of work)
- **publish** work: couple of days after approval (from 2-4 yrs)

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IdM and NID standardization

FG IdM

established in 12/2006 by SG17 understood as the "management by providers of trusted attributes of an entity such as a subscriber, a device, or a provider" able to facilitate and advance the development of a generic IdM framework and means of discovery of autonomous distributed identities and identity federations and implementations.

First meeting: 13-16 February 2007
Defined the working structure and working methods of the FG IdM and started drafting deliverables

Second Meeting: Geneva, 23-25 April 2007

Next planned meetings:
1) Mountain View, CA, USA, 16-18 May 2007;
2) Tokyo, Japan, 18-20 July 2007

More info:
http://itu.int/ITU-T/studygroups/com17/fgidm

JCA-NID: Joint Coordination Activity on Network aspects of Identification Systems (including RFID)
With the goal to avoid duplication of efforts and identify gaps in standardization related to Identity management, network aspects of identification systems and ubiquitous sensor networks, JCA-NID provides overall coordination in ITU-T, and other bodies worldwide

More info:
http://itu.int/ITU-T/jca/nid

Workshops regional distribution

Year 2001: 10 — Geneva; 2, Asia & Pacific; 2, Africa; 1, America; 4, CIS; 1, Europe; 0, Arab; 0

Year 2002: 12 — Europe; 2, Asia & Pacific; 2, Africa; 1, America; 1, Geneva; 6, Arab; 0, CIS; 0

Year 2003: 14 — Asia & Pacific; 1, Africa; 1, America; 1, Geneva; 10, CIS; 0, Arab; 0, Europe; 0

Year 2004: 15 — Europe; 1, Asia & Pacific; 3, Geneva; 5, Africa; 2, America; 4, CIS; 0, Arab; 0

Year 2005: 17 — Asia & Pacific; 1, Arab; 1, America; 2, Europe; 3, CIS; 4, Geneva; 7, Africa; 0

Year 2006: 19 — Europe; 1, Asia & Pacific; 4, Geneva; 10, Africa; 2, America; 2, Arab; 0, CIS; 0