




**ITU-D Regional Development Forum for
the Europe and CIS Region
“NGN and Broadband, Opportunities and Challenges”
Chisinau, Moldova, 24-26 August 2009**

**Strategies to bridge the
Standardization Gap**

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Counsellor
ITU/TSB**

Chisinau, Moldova, 24-26
August 2009


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Outline

- Defining the standardization gap
- Evaluating the gap
- ITU-T activities to bridge the standardization gap

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Digital divide standardization gap & participation

$$\text{Digital divide} \propto \frac{\text{Standardization gap \& poor access to technologies}}{\text{Participation \& capacity building}}$$

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The standardization gap

- Disparities in the ability to access, implement, contribute to and influence international ICT standards (ITU Recommendations)
- Disparities in the representation of developing countries relative to developed countries, cause and manifestation of:
 - Persistence of the wider digital divide in ICTs (among different regions and groups within the society)
 - Unequal access to technology and the ability to use that technology

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Bridging the standardization gap

- PP-02 (Res. 123), WTSA-04/08 Resolution 44, 17 & 54, WTDC-06 Resolution 47
- ITU-T mandated to bridge the standardization gap between developing and developed countries
- Action plan established:
 - ◆ Improve standards making capabilities
 - ◆ Assisting in enhancing efforts in standards applications
 - ◆ Human resource building
 - ◆ Flagship group for bridging the gap
 - ◆ BSG fundraising

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Measuring the gap

- Number of TIES users
- Number of downloads of ITU-T Recommendations from website
- Number of Sector Members and Associates
- Number of chairmen, vice-chairmen and rapporteurs from developing countries
- Number of participants in meetings and contributions by country

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Standardization development ladder

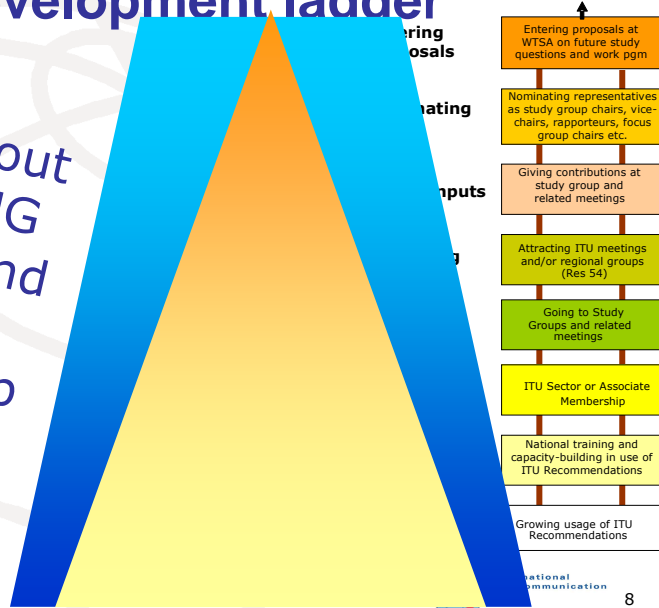
- Bridging the standardization development gap requires a sequence of steps, depending on the level of:
 - economic development
 - local manufacturing and R&D capability
 - previous engagement with ITU
- These steps can be conceptualized in terms of a “**standardization development ladder**”

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Standardization development ladder

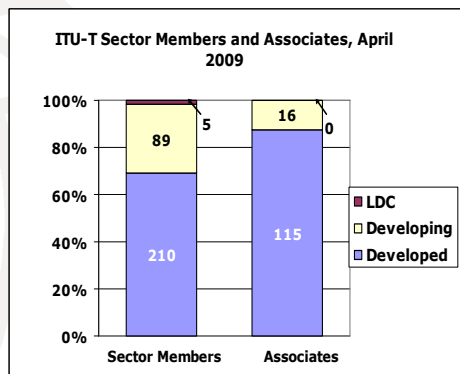
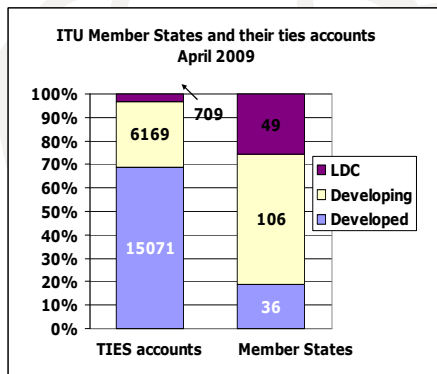
It's all about
ENGAGING
with ITU and
its
membership



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TIES and ITU-T Members distribution



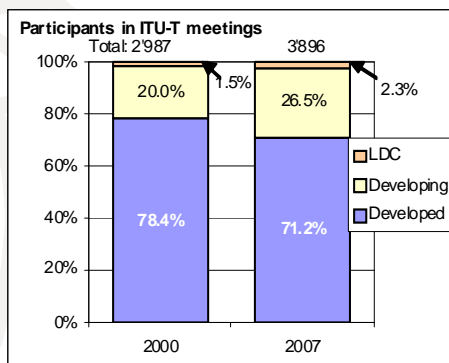
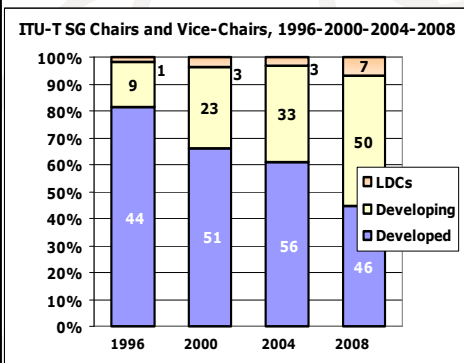
Need for more participation

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Participation in ITU-T meetings and SGs



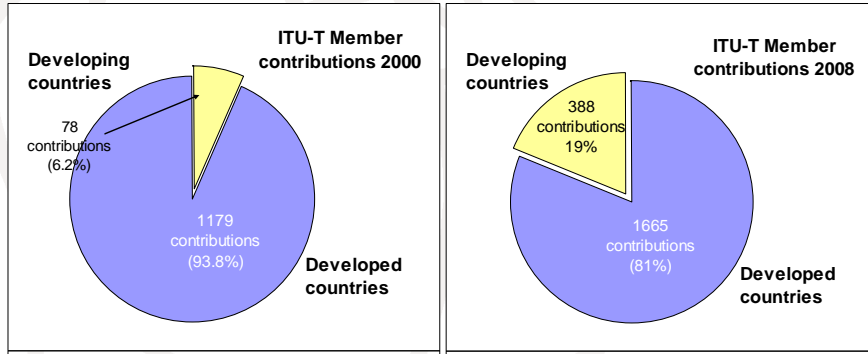
Need for more participation

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Participation: contributions



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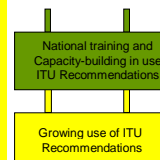
Standardization development ladder (1)

Capacity-building

- to build a national resource base of qualified engineers able to implement Recommendations
- ITU centres of excellence

Growing use of ITU Recs

- can be measured in terms of sales or downloads of Recommendation
- should help to reduce costs and promote inter-operability



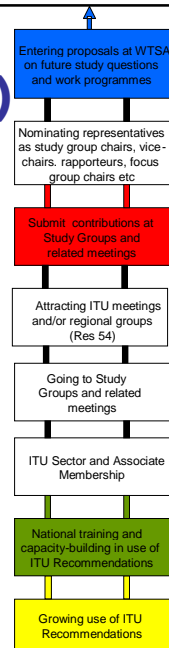
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Standardization development ladder (2)

Entering proposals to WTSA
Determining ITU-T study questions to drive the work of the study groups

Contributing to ITU-T SGs
"Contribution-driven" philosophy: to enter into the process and shaping future standards



ITU-T questionnaire to developing countries on bridging the standardization gap

- Provides background information on the relevance of ITU-T Recommendations for developing countries
- Useful tool to develop strategies able to meet the requirements of the PP-06 and WTSA-08 Resolutions

- ➔ TSB Circular 213 – 5 May 2008
- ➔ to: tsbpromo@itu.int



The ITU-T questions

- Awareness of Recs published by ITU-T
- Relevance and usefulness of Recs to developing countries
- Difficulties for implementation and suggestions to increase participation by developing countries
- Regional standardization “block” meetings to facilitate participation from the regions
- Seminars and workshops in the regions
 - Contributions and proposal for improvement as inputs to WTSA-08 resulted in revised and new Resolutions

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Increasing participation and collaboration

- Workshops, seminars and other events
- Remote collaboration and participation
- Regional groups
- Block meetings
- Flagship Group

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Workshops trend

Year	N. Events	Total yearly days	Average days/event	Geneva		outside Geneva	
				days	%	days	%
2002	12	24	2.00	11	46	13	54
2003	14	36	2.57	24	67	12	33
2004	15	31	2.07	8	26	23	74
2005	18	47	2.61	16	34	31	66
2006	18	41	2.28	19	46	22	54
2007	15	33	2.20	13	30	20	70
2008	30	60	2.00	21	35	39	65

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VIRTUAL International symposium on ICTs and climate change

www.itu.int/ITU-T/worksem/climatechange/200909/index.html

- Seoul, Korea, 23 September 2009
- Various events on [ICTs and Climate Change](#). In April 2009, ITU-T's [Study Group 5](#) changed its name to reflect a new mandate "*Environment and climate change*"
- Will launch a new era in conducting events, offering all the benefits of physical participation but without the environmental costs. Speakers could be virtually present in the meeting room
- More participation from developing and least developed countries
- Will be transmitted live and a webinar will be available so that remote participants can see and hear presentations from wherever they are in the world. Proceedings will be available online after the symposium

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Some recent and upcoming workshops

- Forum on Next Generation Network Standardization, Colombo, Sri Lanka, 7-10 April 2009
- Forum on "Implementation of decisions of the World Telecommunication Standardization Assembly (WTSA-08)". Accra, Ghana, 16 - 17 June 2009
- Workshop on the Profiling Requirements for the Feasibility Study on Establishment of Electronic Communications Equipment Type Approval Testing Laboratory. Dar-Es-Salaam, Tanzania, 25-26 June 2009
- ITU Symposium on ICTs and Climate Change, Quito, Ecuador, 8-10 July 09
- ITU Consultation meeting on "Conformity Assessment and Interoperability", Geneva, 20-21 July 2009
- Kaleidoscope event: Innovations for Digital Inclusion, Mar del Plata, Argentina, 31 August – 1 September 2009
- Workshop on Accessibility: Planned in Bamako, Mali, 13-15 Oct 2009
- Forum on WTSA-08 Resolution Implementation and Bridging Standardization Gap (Fiji, 16-17 September 2009)

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WTSA-08 new Resolution 74

- Title: Admission of Sector Members from developing countries in the work of the ITU-T at reduced fee
- **Resolves** ... to encourage the adoption of the necessary measures to enable new members from developing countries to join ITU-T ... take part in the work of study groups and other groups within ITU-T, (consider financial contributions applied in the BDT)
- **instructs the Director of the TSB** to propose to the Council to consider the admission of such category in the work of the ITU-T at an appropriate level of financial contribution.... and to include its consideration of this matter in the council work for the preparation of the 2010 PP conference

Note: These Sector Members from Developing Countries shall not be affiliated in any way to any Sector Member of a Developed Country, and be limited to those Sector Members of Developing Countries classified by the UNDP as low income per capita Country, not exceeding (.....US\$).

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Remote collaboration and participation: online tools

- Free access to ITU-T Recommendations online (since 1 January 2007)
- TIES access (password protected) to meeting documents etc
- Other electronic tools, e.g., correspondence groups, informal FTP areas on website, Forums etc
- Remote participation via webinar (GotoMeeting, GoToWebinar, Webex)

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Resolution 54 Creation of regional groups

Regional Groups

TSB supports within available (or otherwise contributed resources) and on a case-by-case basis the creation of regional groups

Tariff and accounting, SG 3; Service provision, SG 2; EMF & climate change, SG 5; QoS, SG 12

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Resolution 44 Bridging the standardization gap between developing and developed countries

- **Programme 4:** Flagship groups for bridging the standardization gap: assistance to help on specific issues, expertise
 - ◆ NNA (Egyptian IPv6 Task Force), SG 2

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Flagship Group Americas (Res. 44 Annex 1 prg 4)

- Permanent regional standards awareness
- Training on standardization in the regions, producing manuals and audio/video material
- Support and measure participation in ITU-T activities (academia, private sector...)
- Translate ITU-T material
- Support remote or direct participation of experts in ITU-T activities
- Creation of regional testing & calibration labs
- Invite regulators to put in place mechanisms to consider international standards when preparing national technical regulations

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ITU-T "Block" meetings in the regions

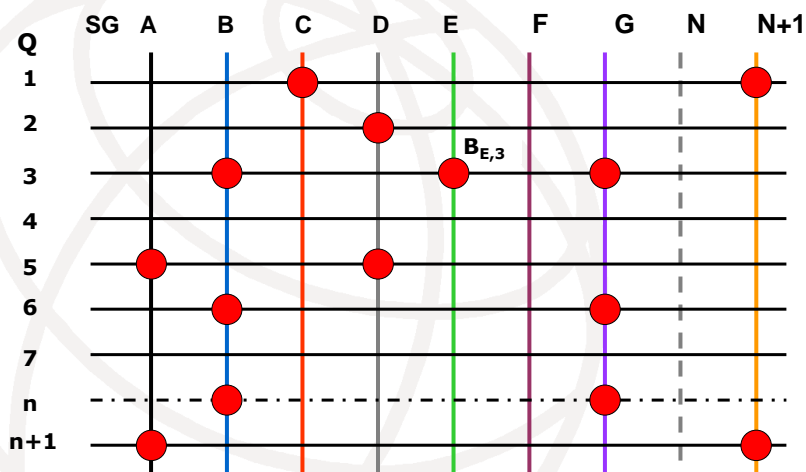
- Cooperation with regional organizations: CITEC, RCC, APT, ATU, LAS,...
- One per year per region in the same place in the same time in their regions
- Topics decided by the membership and transversal to any ITU-T study groups
- Official status as generator of contributions to parent study groups
- TSB secretarial support, EDH facilities as any other SG meeting

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The $B_{K,J}$ matrix concept: any Question from any SG



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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://www.itu.int/ITU-T/uni>

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Technology Watch briefing reports

- Identify new/emerging technologies with a view to identify areas for new standardization work, such as:
 - [ICTs and Food Security \(July 2009\)](#)
 - The Future Internet (April 2009)
 - Distributed Computing: Utilities, Grids & Clouds (March 2009)
 - Standardization Activities for Intelligent Transport Systems (October 2008)
 - NGNs and energy efficiency (August 2008)
 - Technical aspects of Lawful Interception (May 2008)
 - ...
 - ICTs and Climate Change (December 2007) > FG > SG 5
- See <http://www.itu.int/ITU-T/techwatch/reports.html>

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Technical flyers

- Numbering, Naming and Addressing
- VoIP
- QoS & QoE
- NGN
- ASON
- B-PON ; CWDM; DSL ; G-PON
- Optical Fibres and Cables
- OTN ; OTS
- Synchronization over packet networks
- Accessibility
- H.264 ; H.350
- Multimedia Communications
- ASN.1
- Security
- IMT-2000



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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/2008>)
- 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

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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**



<http://www.itu.int/ITU-T/Workshop/kaleidoscope/>
kaleidoscope@itu.int

**more than 220 participants,
from 48 countries,**



ICF



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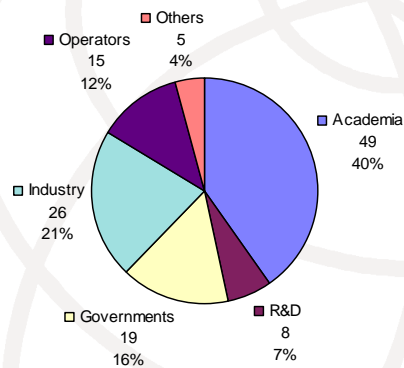


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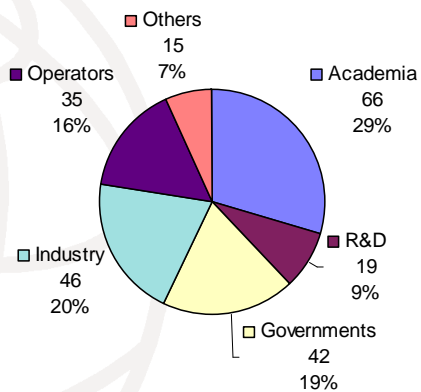


Participants

Types of organization



Participants per type of organization



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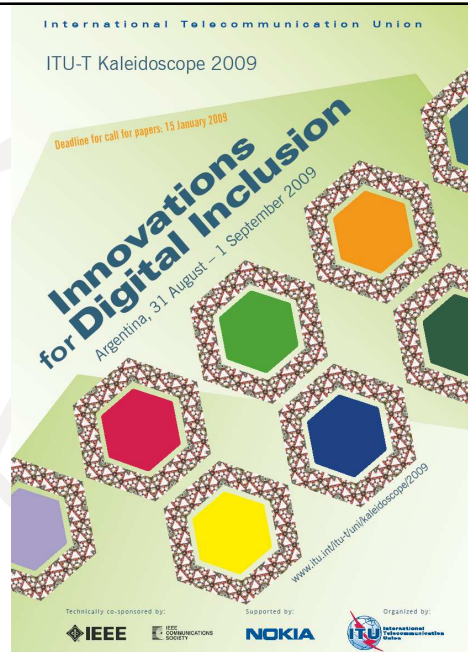
IEEE Communications Magazine (May 2009)



Kaleidoscope
Special edition
from page 80

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Kaleidoscope-09
31 08 – 1 09 2009
Mar del Plata
Argentina

www.itu-kaleidoscope.org/2009

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Kaleidoscope 2009: Innovations for Digital Inclusion

- **Background:** WSIS (Geneva 2003 – Tunis 2005) → advocated turning the digital divide into a digital opportunity
- **Kaleidoscope 2009:**
 - ◆ Second in a series of peer-reviewed academic conferences
 - ◆ Aims at increasing the dialogue between experts on ICT standardization and academia
 - ◆ Will analyze technologies, services and applications five years and beyond...
 - ◆ Multidisciplinary aspects, including NGN infrastructure, standardization needed, regulatory and societal challenges to promote Digital Inclusion
 - ◆ With an eye on developing countries, it seeks to promote research that supports innovation in ICTs toward universal, sustainable, ubiquitous and affordable access by all

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Kaleidoscope 2009: Awards

- USD 5k, 3k and 2k will be granted to the best papers
- young author recognition certificate to students who do not hold a PHD
- Publication and presentation of accepted papers
 - ◆ published in the proceedings and IEEE Xplore.
 - ◆ The best papers will be evaluated for potential publication in the IEEE Communications Magazine

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ITUing...

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- Increasing the use of ITU recs, membership
- Capacity building, training
- Increasing participation in SGs, management, workshops, meetings and number of contributions
- Contributing to ITU work plans

**Bridge the
Standardization Gap**

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Thank you

<http://www.itu.int/ITU-T/gap>

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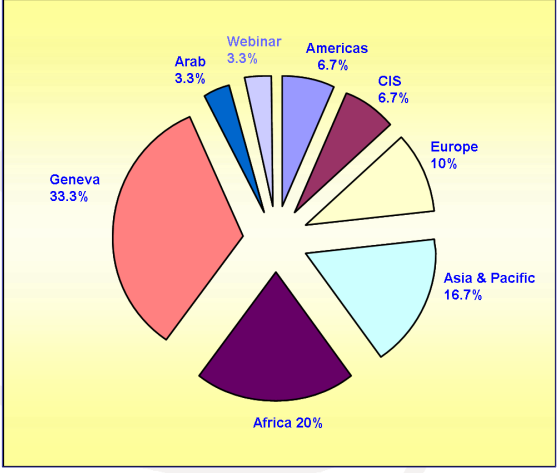
Supplemental slides

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Meetings by regions



Region	Percentage
Geneva	33.3%
Africa	20%
Asia & Pacific	16.7%
Europe	10%
CIS	6.7%
Americas	6.7%
Webinar	3.3%
Arab	3.3%

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Types of collaboration

Same time *synchronous* Different time *asynchronous*

Same place
co-located

Face-to-face meetings
meeting rooms, projection systems, tabletop computer, flip charts etc

Ongoing collaboration
project management tools, e-calendars, wall charts, shift-work groupware etc

Different place
remote

Remote meetings
remote collaboration tools, video/audio conferencing, IM/chat, telepresence, webcasts, virtual worlds etc

Time-shift remote collaboration
websites, forums, email, e-calendars, sharepoints, wikis, version control etc



Promoting remote participation and e-meetings

- To assist in bridging the standardization gap, especially for delegates from developing countries
- To provide training materials (archived on web)
- To make participation in short meetings more efficient (e.g. steering committees, seminars, rapporteur groups)
- To contribute in reducing carbon footprint



Remote participation e-meetings

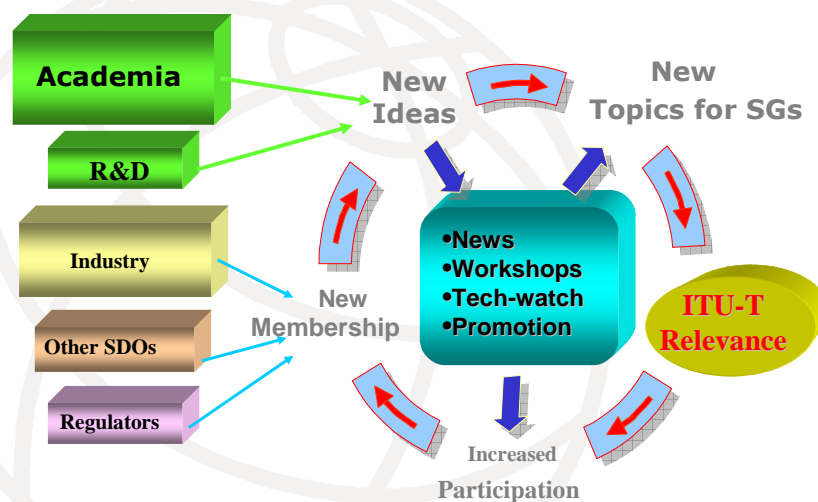
- ITU-T trial, launched by TSAG in Dec-07, to evaluate remote participation
 - **GoToMeeting**: used extensively within ITU for short (>2 hours) meetings, with up to 30 participants
 - **GoToWebinar**: used for covering Climate Change symposium in Kyoto, with up to 200 participants over 2 days (archived)
 - **WebEx**: one year trial offered by CISCO

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Academia & ICT world circle



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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

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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)

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