

An aerial photograph of a university campus, likely the University of Twente, featuring modern buildings, green spaces, and a large blue speech bubble overlay. The speech bubble contains the title and speaker information. The background shows a cityscape and mountains under a cloudy sky.

Implications of Technical Standardization for Regulation: Towards WTSA-16

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Standardization

ITU-T



KEY ROLE

We develop international standards (ITU Recommendations) that enable the interconnection and interoperability of ICT networks and devices

200 - 300 new
international standards
approved every year, with
over **4,000** in use today



STANDARDS enable global communications by ensuring ICT networks and devices **speak the same language globally.**



Our work

STUDY GROUPS



Bring together experts from public and private sectors and academia to develop **international standards** (ITU Recommendations) for the global ICT sector into 11 Study Groups

- **Operational aspects**
- **Economic and policy issues**
- **Environment and climate change**
- Broadband cable and TV
- Protocols and test specifications
- Performance, QoS and QoE
- Future networks (& cloud)
- **Transport, Access and Home**
- Multimedia
- **Security**
- **IoT and applications, smart cities**

Regulatory impact



Regulatory impact of standards work

Technological advances *inform* policy and regulatory reform, *but technology too often races ahead of policy*

- Result is that governance frameworks fall out of step with market realities
- Challenges to fair market competition may arise
- Legislation may no longer afford adequate protection to consumers

The international community is looking to ITU's unique public-private partnership of members for a **neutral platform to strengthen the ties between technical innovation, business needs and economic and policy requirements**

- This is very evident in the work of ITU-T Study Group 3, our lead group on economic and policy issues

Policy & Regulatory impact of Study Group Work

The majority of ITU standards are approved using the fast-track “**Alternative Approval Process**” (AAP)

- Fastest standards-approval process of any standards-developing organization.

The “**Traditional Approval Process**” (TAP) is used in some cases:

- Especially for any matters having policy or regulatory implications
- ‘Questions’ (work streams) and Recommendations (standards) which require formal consultation of Member States

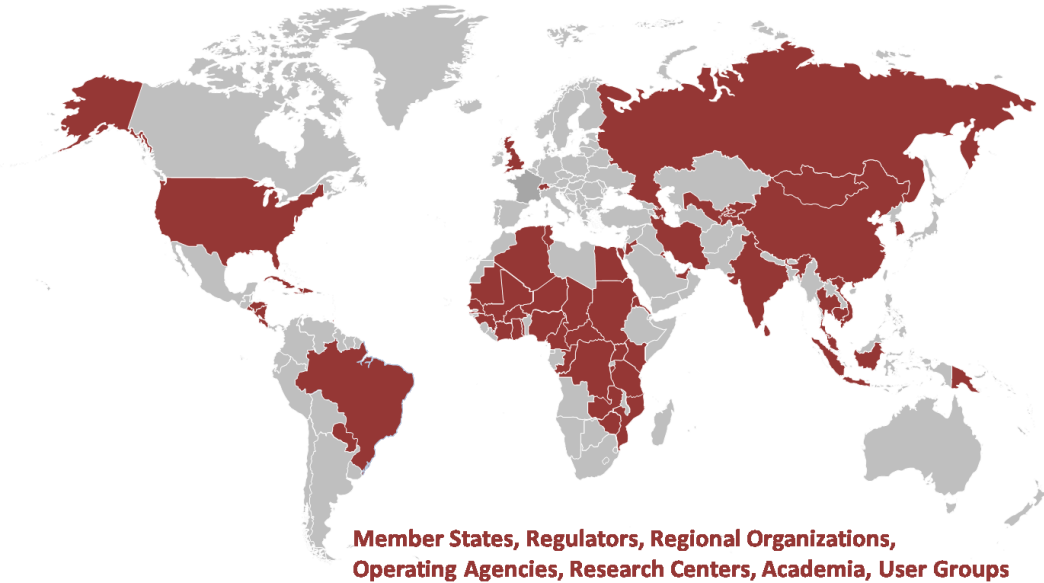
Technical standardization has become a matter of interest to regulators and policymakers

- Increasingly, **security** and **environmental** issues have morphed from a purely technical issue into a complex matter with the potential to affect national (security) interests, and national and regional regulations

SG3 – Economic & Policy Issues

Economic and policy requirements playing a greater role in informing ITU standardization

- More than ever, **technology and policy must work hand-in-hand** in order to ensure an innovative, sustainable and safe digital world
- SG3 responds to the need for standardization that takes into account the growing interdependence and **much-needed alignment of technology business needs and policy requirements**



*The last meeting received written inputs submitted by **76** distinct members*

Economic & Policy issues

Some topics under study by SG3 include:

- International Internet connectivity
- International mobile roaming
- Economic impact of OTTs
- Mobile financial services (Guidelines, Inter-op, Competition)
- Significant market power (Quantifying & impact)
- Universal service
- Digital identify and big data (Guidelines)

| *Our areas of action*

Cyber-security



Regulatory issues related to Security

SG17 is responsible for **building confidence and security** in the use ICTs

- Privacy and data protection
- Identity, naming, person identification, biometrics
- Crypto import/export regulations, Lawful intercept
- Deep Packet Inspection (DPI)
- Network security
- Internet of Things (IoT) security
- Intelligent Transportation Systems (ITS)
- Software-Defined Networking (SDN) security
- Smart grid security,

Security questions under TAP

- **50% of all SG17 Questions** now use TAP as the default approval process
- **More than 30% of all SG17's work items** are under TAP
- SG17 Questions with selected TAP (default):
 - Q2/17, Security architecture and framework
 - Q4/17, Cybersecurity
 - Q5/17, Countering spam by technical means
 - Q6/17, Security aspects of ubiquitous telecommunication services
 - Q8/17, Cloud computing security
 - Q9/17, Tele-biometrics (AAP Default) but with several TAP exceptions
 - Q10/17, Identity management architecture and mechanisms



Environment & Climate Change

SG5: Environment & Climate Change

ICTs are capable of playing a key role in **addressing global environmental challenges and sustainable development Goals**

ITU is promoting innovative ICT solutions to environmental questions and is developing green ICT standards to support a sustainable future, in areas such as:

SG20: Platforms interoperability for smart cities under TAP



Assessment of
environmental
impact of ICTs



Climate change
adaptation and
mitigation



Energy efficiency



E-waste



Smart
Sustainable Cities



Smart Water
Management

Damage Prevention and Safety

Main topics

- Ethernet port protection (wired internet access)
- Base station protection (wireless internet access)
- Multi-port surge protective devices

Examples of standards

- Resistibility of telecommunication equipment to overvoltages and overcurrents
- Protection of radio base stations and structures against lightning strikes



EMF – Emmission, Immunity and Human Exposure

Main topics

- Exposure to EMF
- EMC requirement for telecommunication equipment and cabling
- EMC requirement in home



Examples of standards

- Recommendation ITU-T K.58 “EMC, resistibility and safety requirements and guidance for determining responsibility under co-located information and communication technology installations”
- Recommendation ITU-T K.83 “Monitoring of electromagnetic field levels”
- Recommendation ITU-T K.100 “Measurement of radio frequency electromagnetic fields to determine compliance with human exposure limits when a base station is put into service”

Why does this matter?

- Many SG questions under TAP have policy and regulatory implications
- This ensures a wide, deep(er) review of the draft standards by Member States
- This is the opportunity to raise any concerns
- Translated in all 6 UN languages and sent for consultation to all Member States
- Participation in SGs is a chance to ensure competition and consumer protection
- 10 new TAP recommendations up for approval at WTSA
- A chance for policy and regulation ***to inform standards and not the reverse***
- How can you get involved?



25 October – 3 November
Hammamet, Tunisia



wtsa16
TUNISIA



World Telecommunication Standardization Assembly



- WTSA is held every four years
- Brings together members to define the next study period
- Refines the strategic direction & structure of standardization arm
- Leadership, working methods and mechanisms for collaboration
- 5G, IoT & Trust and contribution to the pursuit of UN SDGs
- Ensuring that ITU provides its members with a standardization toolkit optimized to assist government and industry in achieving their ambitions for the year 2020 and beyond.

10 TAP Standards under approval at WTSA



- SG3: International Aspects of **Universal Service**
- SG3: Charging and accounting principle for **NGN**
- SG3: Establishing & Connecting Regional IXPs to reduce the costs of **International Internet Connectivity**
- SG3: Methodological principles for determining **international mobile roaming rates**
- SG3: Regulatory principles for market definition & identification of operators with **significant market power**
- SG2: The **international identification plan** for public networks and subscriptions
- SG15: Fast access to **subscriber terminals (FAST)** - Power spectral density
- SG15: Unified high-speed wire-line based **home networking transceivers** - Power spectral density
- SG17: Performance models and metrics for **deep packet inspection**
- SG20: **Platforms interoperability for smart cities**



Global Standards Symposium *Security, Privacy and Trust*

Session 1: The impact of emerging technologies on security, privacy and trust

Session 2: How industry meets end-users' expectations of security, privacy and trust

Session 3: Standards bodies' approach to security, privacy and trust





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