

# **Regulator's involvement in and skills for ITU standardization: an example of Suisse OFCOM**

**Dr. Leo Lehmann**

**Federal Office of Communication (OFCOM)**

**Vice-chair ITU-T Study Group 13 (Future  
networks including mobile and NGN )**

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# Introduction

## Federal Office of Communications

The Federal Office of Communication (OFCOM) handles questions related to telecommunications and broadcasting (radio and television). In this sphere, OFCOM fulfills all sovereign and regulatory tasks. The Office prepares the decisions of the Swiss government (the Federal Council), the Swiss Federal Department for the Environment, Transport, Energy and Communications (DETEC) and the Swiss Federal Communications Commission (ComCom).

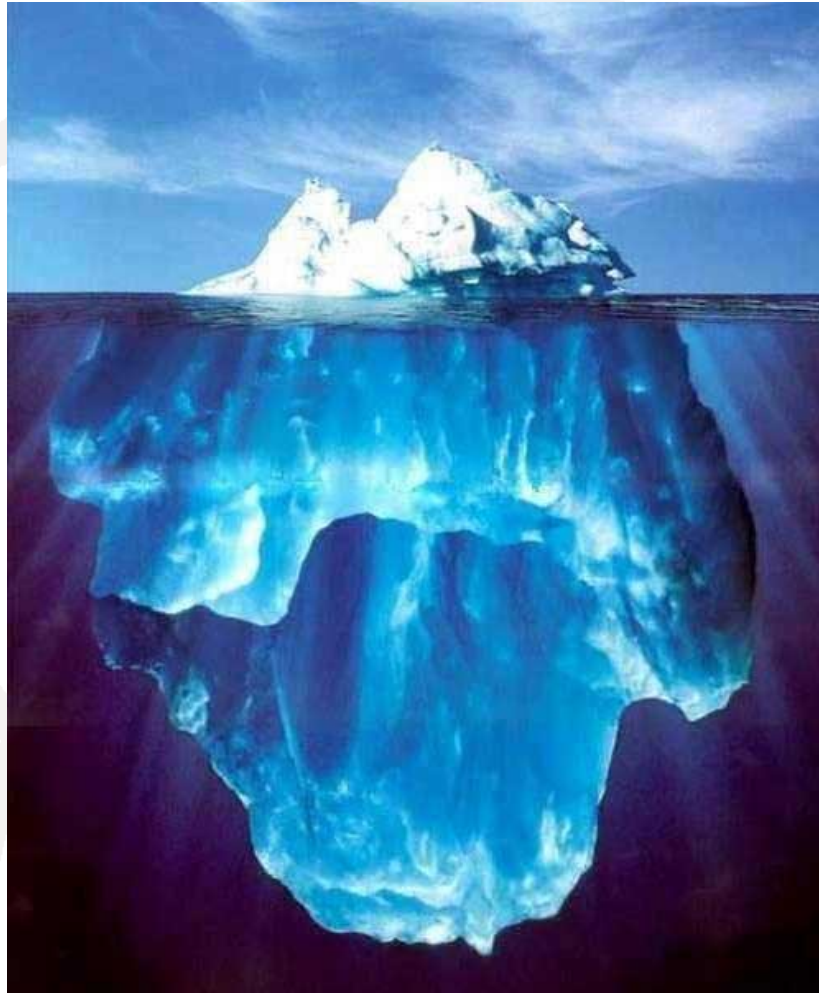


# Why involvement into standardization?

- Generally
  - Technical standards are an important baseline for regulatory decisions; thus knowledge on them is mandatory
- Objectives
  - Placement of Suisse regulatory requirements in standardization
  - To be prepared for changes on regulatory principals due to technological alterations and to avoid to missing the mark
  - Facilitate Suisse telecom industry involvement in ITU standardization
- Principles
  - Focus on issues that have policy or regulatory implications
  - Active representation of the Suisse telecom sector (e.g. Study Group Rapporteurs and Vice Chair)
  - Coordination/ collaboration with CEPT (Conférence Européenne des Administrations des Postes et des Télécommunications) regarding common European interests



# Regulatory impacts of standardization



Source: ITU-T NGN Seminar & WS, Bahrain 2007

Technical Standards

Regulatory Impacts

Interconnection

- physical interfaces
- Agreements
- service support (legacy, new)
- transition arrangements
- fees

Support of general interest

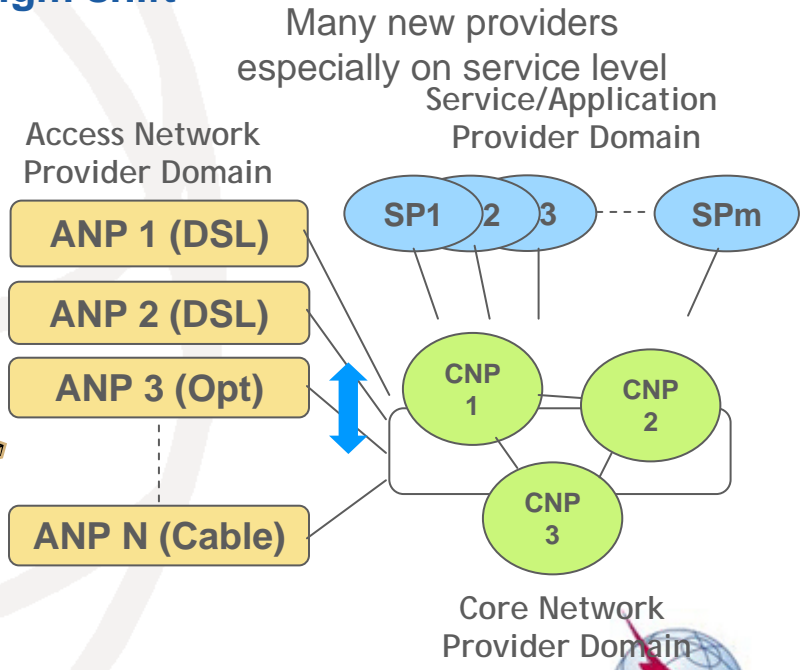
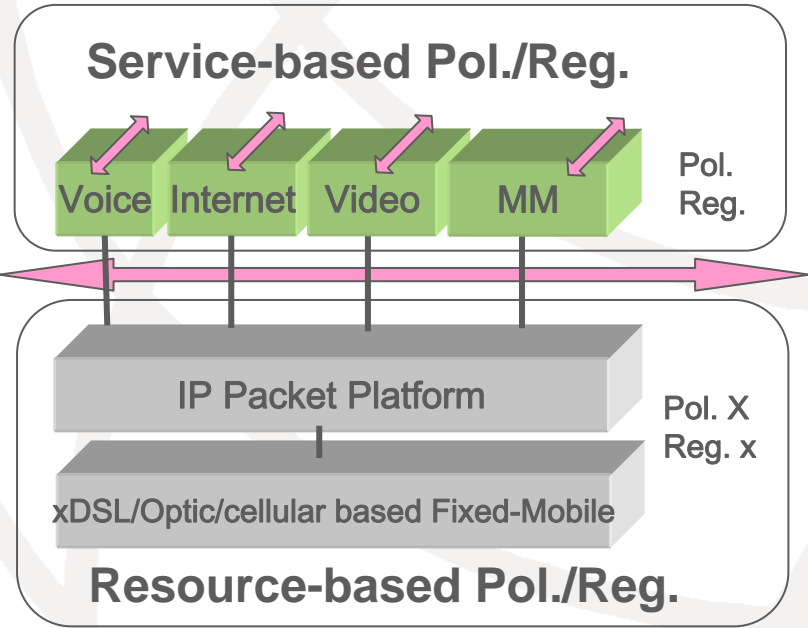
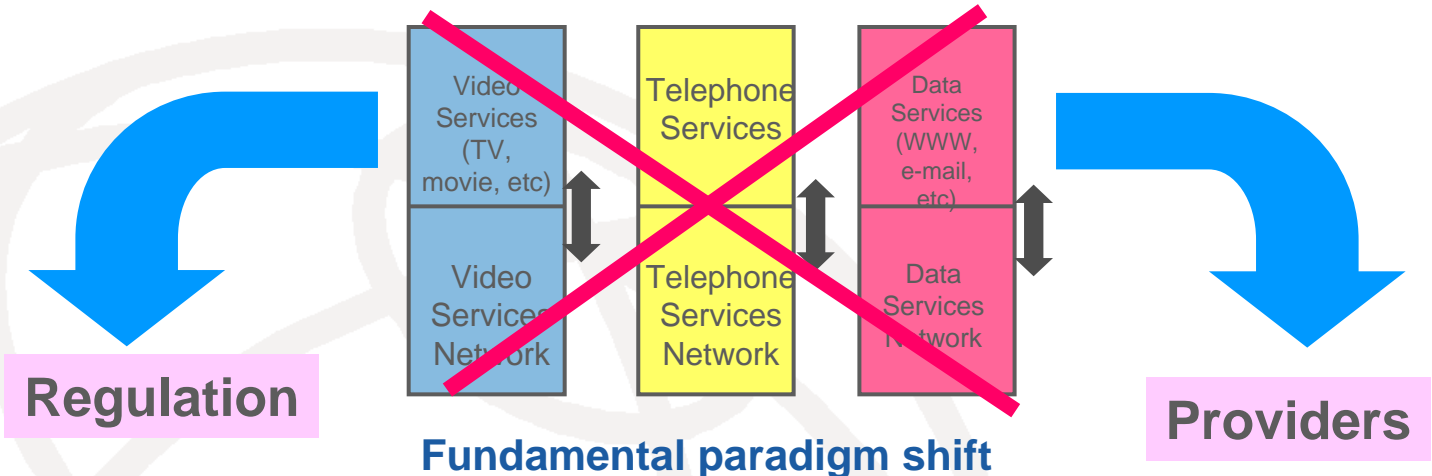
- legal requirements (lawful interception, emergency calls including locating)
- universal service
- accessibility
- privacy and security

Addressing & numbering

Form of licenses

**Regulatory issues „below the waterline“ require detailed knowledge on technical standards**

# Example: NGN Impacts



# Example: NGN Impacts (cont.)

- Service based reg. / resource based reg. (horizontal)
- Interconnection (new models, new interfaces, pricing)
- Network Neutrality (Access)
- Numbering and Identification
- Generalized Mobility, Roaming
- Dominance (what are the future relevant markets)
- Security, Consumer protection, fraud mitigation
- Lawful Interception, Emergency Call
- Quality of Services (QoS) or Quality of Experience (QoE)
- New access types (e.g. Fibre to the home; wireless); new unbundling questions



# Positions/ functions & skills

Function/ position level	Required skills on standardization
Clerk (e.g. engineer)	Detailed knowledge on technical standards, which impacts the scope of work
Group/ section manager	Overview on technical standards and relevant results affecting the mission of the group/ section
Department manager and higher	General understanding on current direction in standardization

Difficult to generalize; technical related functions usually require more detailed knowledge on standardization



# OFCOM involvement into ITU (Standardization sector ITU-T)

Group	Major nature of involvement
<b>SG2</b> (Operational aspects of service provision and telecommunications management)	regulatory, technical (e.g. numbering-/addressing rec., NW management, HF)
<b>SG3</b> (Tariff and accounting principles including related telecommunication economic and policy issues)	regulatory, economical (e.g. roaming, network externalities)
<b>SG5</b> (Environment and climate change)	technical
<b>SG9</b> (Television and sound transmission and integrated broadband cable networks)	technical
<b>SG11</b> (Signalling requirements, protocols and test specifications)	technical
<b>SG12</b> (Performance, QoS and QoE)	technical
<b>SG13</b> (Future networks including mobile and NGN)	technical
<b>SG15</b> (Optical transport networks and access network infrastructures)	technical



# OFCOM involvement into ITU (Standardization Sector ITU-T)

Group	Major nature of involvement
SG16 (Multimedia coding, systems and applications)	technical
SG17 (Security)	technical, regulatory (e.g. security requirements)
IPTV GSI (IPTV Global Standardization Activity)	technical
IdM GSI (IdM Global Standardization Activity)	technical, regulatory
NGN GSI (NGN Global Standardization Activity)	technical
TSAG (Telecommunication Standardization Advisory Group)	regulatory, administrative, working methods
WTSA (World Telecommunication Standardization Assembly)	regulatory, administrative, working methods

Currently 15 OFCOM employees (engineer, economist, manager) directly involved into ITU-T standardization as “Delegate”, “Head of Delegation”, “Rapporteur” or “SG Vice-chair”



# Required skills

## ■ General

- Technical and regulatory knowledge in telecommunication
- Strong analytical abilities
- Understand, evaluate and translate standards into regulatory requirements and vice versa; advising and establishing on the interpretation and application of standards (explanatory skills)
- Language skills: English mandatory
- Ability to build up personal networks
- Ability to build consensus
- Perseverance



# Required skills (cont.)

## ■ Specific

- Delegate/Head of Delegation (Chef de File) Study Group (SG)
  - Broad knowledge in the working area of the associated SG (technical, economical, regulatory) in order to be able to judge quality of SG output (standards, guidelines, reports etc.) and to approve them on behalf of Switzerland
  - Knowledge on ITU working methods
  - Co-ordination abilities (co-ordination on national level)
- Rapporteur
  - Specialist/expert (in-depth knowledge) in the specific working area of the question
  - ITU working methodology (developing of new standards)
  - Technical leadership, organizational skills (efficient meetings)
  - Ability to resolve conflicts



# Required skills (cont.)

## ■ Specific

### ➤ Vice Chair/ Chair

- expert in the area of SG; demonstrated mastery of telecommunications policy and technology, related to the SG
- management skills, leadership skills (technical and administrative issues)
- experience in ITU standardization
- knowledge in ITU working methods
- ability to resolve conflicts

### ➤ TSAG, WTSA Chef de file

- in-depth knowledge in resolutions, recommendations concerning the work organization and ITU working methods
- Competence on direction of standardization
- competence on regulatory aspects of telecommunication
- Relationships to other SDOs ,forums, consortiums



# Summary

- Professional skills in standardization required by specific functions/roles cannot be generalized
- Technical related functions usually require more knowledge on ITU standards and skills on standardization
- Standardization skills are mandatory for OFCOM's ITU representatives and adjuvant for employees, which function is directly influenced by ITU standards (e.g. system engineers and telecommunication engineers)
- Generally involvement in standardization require solid experience (several years) in telecommunication

**Thank you!**

