ITU Conformity & Interoperability Programme Overview

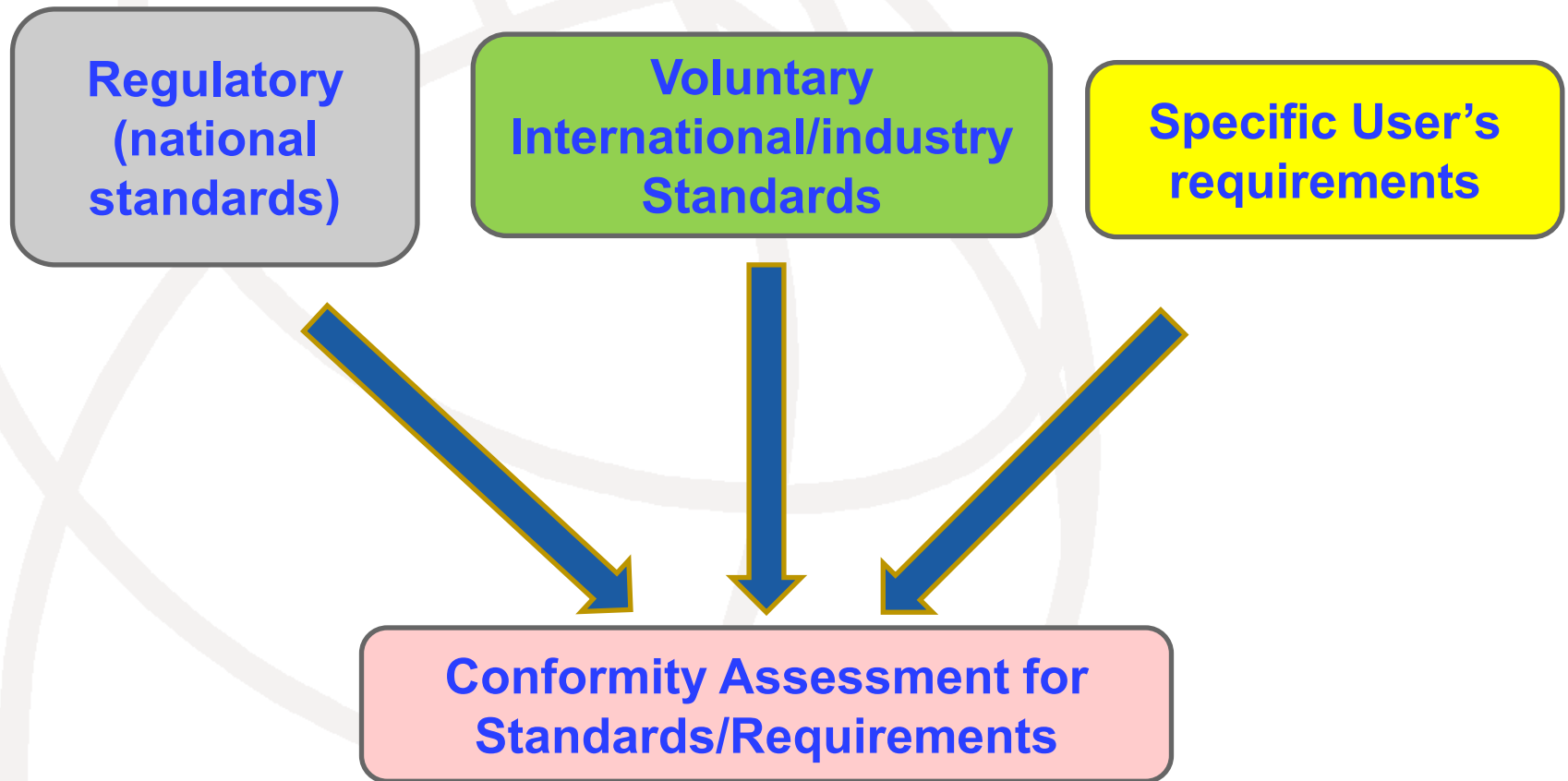Xiaoya Yang

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Agenda

- Background - why ITU C&I Programme?
- ITU Mandate on C&I
- Overview of ITU C&I Programme
- Action Plan for Pillar 1-4
- Conclusion

Telecom/ICT Environment

- Net externality of telecom industry necessitate interconnection and interoperability
- Global trend of privatization and deregulation since 1990s
- Standardization:
  - Evolving technologies: software updates more often than hardware
  - 500+ stands making bodies
  - ITU-T Rec. are voluntary since 1988 ITRs
  - Limited national Telecom/ICT standardization/conformity assessment
- Emerging competitive telecom operator industry:
  - limited number of operators in a nation market
  - dominant power in different market section

Formation of conformity requirements

Regulatory (national standards)

Voluntary International/industry Standards

Specific User's requirements

Conformity Assessment for Standards/Requirements

Current telecom/ICT C&I practices

- National regulatory conformity assessment:
  - Safety of life
  - Interference-free
  - Type approval according to national standards
- Limited number of bilateral/multilateral Mutual Recognition Agreements(MRA)
  - APEC TEL MRA 1998
  - US-EU MRA
  - Australia-European MRA
  - Canada-Switzerland MRA
- Voluntary conformity assessment
  - SDOs/industry fora – designated testing lab(s) issue product certification against specific standard
- Specific interoperability testing requested by customers, e.g, telecom operators
  - By 3rd party testing labs
  - By 2nd party user

C&I Issues

Lack of necessary standards and/or standard enforcement leads to:

- poor interconnection and interoperability frustrate end-user
- damaged reputation of company
- damaged reputation of new service/technology
- jeopardized competition by dominant market player
- Vendor locked telecom operators
- Redundant testing is a burden to both vendors and operators
- trade barrier for vendors to access new market
- Counterfeit equipment
- ……

Why ITU C&I Programme

- ITU-T's Mission
  - Develop interoperable, non-discriminatory and demand-driven international standards for International telecommunication
- Conformity to ITU Recommendations will:
  - Enable telecom operators, vendors, end users, and regulators worldwide to have confidence that products sourced in global market meet international telecommunication requirements.
  - Improve interconnection and interoperability
  - Reduce trade barrier and improve transparency to market access
  - Help telecom operators to reduce time of new service provision
  - Help vendors to save cost on repetitive testing/certification for same product, thus reduce time to market
  - increased choice from multiple manufacturers/service providers

ITU Mandate on C&I

- **Resolution 76:** ITU World Telecommunication Standardization Assembly (WTSA-08, WTSA-12)

- **Resolution 47:** ITU World Telecommunication Development Conference (WTDC-10)

- **Resolution 177:** ITU Plenipotentiary Conference

- (PP-10)

- **Resolution 62:** Radiocommunication Assembly 2012

- **Council Decisions:** (2009, 2010, 2011, 2012, 2013)

Overview of ITU C&I Programme

Business Plan for the ITU C&I Programme in 4 "Pillars"

- **The Standardization Sector side**

  - ❖ Pillar 1: Conformity Assessment

  - ❖ Pillar 2: Interoperability Events

- **The Development Sector side**

  - ❖ Pillar 3: Capacity building

  - ❖ Pillar 4: Establishment of test centres in developing countries

Pillar 1

Conformity Assessment

Pillar 1 as defined in ITU PP-10 Resolution 177

- Res. 177
  - mentioned a pilot ITU Conformity Database as informative only
  - invited ITU Sector Members to populate the pilot conformity database with details of products tested to applicable ITU-T recommendations in accredited test laboratories (1st, 2nd or 3rd party), or by accredited certification bodies, or according to procedures adopted by a standards development organization or forum qualified in accordance with Recommendation ITU-T A.5
  - Continue to study a possible ITU Mark as a voluntary conformity declaration

"4 Routes" to populate ITU Conformity Database (1)

"4 Routes" to populate ITU Conformity Database (2)

Third Party approach in accordance to ISO/IEC Int'l standards

Route 1: Accredited Testing Laboratories

Route 2: Accredited Certification Bodies

Third Party approach used by ITU's partners

Route 3: Test Labs agreed by ITU-T A.5 recognized SDOs, Forums, Consortia and ITU MoU signatories organizations

Self-assessment approach

Route 4: ITU members only (ISO/IEC 17050) : to be maintained?

"4 Routes" to populate ITU Conformity Database (3)

- Many questions yet to answer:
  - What are the criteria for an eligible product to this database=is conformant to ITU-T Recommendation?
  - Who should carry out conformity assessment?
  - Who can populate this database and how?
  - What's ITU-T's role in the complicated CA area? How ITU-T should collaborate/cooperate with other stakeholders?

ITU Conformity Database

What's clear from PP-10 Res 177:

- Voluntary and informative only

- to showcase product(/system/service) implementing and conformant to ITU-T Recommendations

Pillar 1 Objectives

At this stage, Pillar 1 objectives should be clarified before discussing the details of the database

- Ensure ITU-T's strategic objective – to produce interoperable ITU-T Recommendations
- Promote conformity assessment by ITU-T recognized competent testing labs on products/services against ITU-T Recommendation(s)
- Grow a community of telecom/ICT standardization and conformity assessment
- Facilitate mutual recognition of conformance testing results

Pillar 2

Interoperability Events

ITU Interop events

- ITU-T Rec. Y.101 defines 'interoperability' as:
    "two or more systems to fruitfully exchange information and mutually make use of it."
- conformance increases the probability of interoperability, but can't guarantee
- ITU Interoperability testing events:
    - cross-connect various manufacturers
    - evaluate of interoperability of all participants on a peer basis
    - check end to end performance at common "interfaces"

    to validate different implementations of standard, and feedback to base standard making.

Smart Cable TV and IPTV solutions, Jan 2013

Pillar 3

Capacity Building

2013 events

- Training on Conformance and Interoperability for ASP and CIS Regions (Quarter 1/2013)
- Training on Conformance and Interoperability for Arab and Africa Regions (Quarter 3/2013)
- Training on Conformance and Interoperability for AMS Region (Quarter 3/2013)
- ITU Regional Offices to play an active role to identify regional partners and to support organization

Pillar 4

Establishment of test centres in developing countries
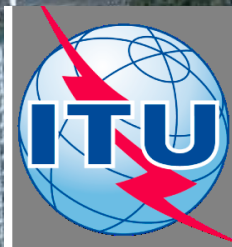
Creation of test labs in the Regions

- Collaboration with Regional and Sub-regional Organizations and establish harmonized C&I Infrastructures

- Guidelines for Conformity Assessment Test Labs and Regimes in different Regions (available)

- Guidelines for development, implementation and management of Mutual Recognition Agreements (MRAs) (in progress)

- Identify a pilot project for the development of a regional test facility

Yangon City, Myanmar, 25-27 November 2013

Conclusions

ITU committed to:

- Develop interoperable international telecommunication/ICT standards
- Promote conformity to telecommunication/ICT standards
- improve international interconnection and interoperability
- Reduce global trade barrier, promote market transparency and competition
- Facilitate capacity building in developing countries covering most of the key technologies

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Thank You !