

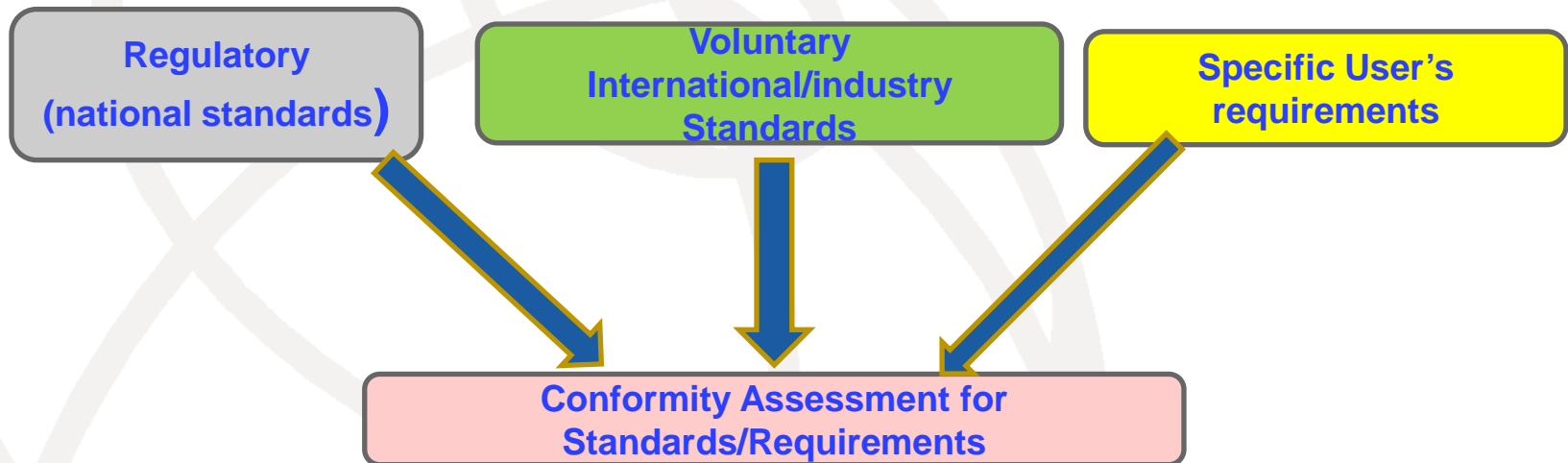
ITU Conformity & Interoperability Programme Overview

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

C&I terms

- **Conformity assessment:** *the process used to demonstrate that a product, service or system conform to specified requirements.* – ISO/IEC 17000



- **Interoperability:** *the ability of two or more systems or applications to exchange information and to mutually use the information that has been exchanged.* - Rec. ITU-T Y.101
- conformance increases the probability of interoperability, but CAN NOT guarantee

C&I testing is common telecom/ICT industry practice

- National regulatory conformity assessment, focusing on:
 - Safety of life
 - Interference-free
 - Type approval according to national regulation
- 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, by influential SDOs/industry fora
 - designated testing lab(s), issue product certification against their specific standard(s)
- Interoperability testing
 - Organized by a SDO:
 - to verify a standard's specification and its implementation before it's completed
 - To facilitate its members to delivery 'standardized' product to market in synchronization with standard
 - requested by specific customer(s), e.g, decision of telecom operator to procure new devices/systems which must be interoperable with legacy system of either their own or their interconnection partner operator

Telecom/ICT Environment

- **Net externality** of telecom industry necessitate interconnection and interoperability
- **ICT innovation and convergence** challenges ICT standardization
 - Product/service involve many standards
 - 500+ standards development organizations
- Global trend of **privatization** and **deregulation** since 1990s
 - competitive telecom operators in a national market
 - Existence of dominant power in different market sections
 - many developing countries lack capability in Telecom/ICT standardization/conformity assessment
 - ITU-T Rec. are voluntary since 1988 ITRs

C&I Issues

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

- poor interconnection and interoperability frustrate end-user
- damage 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
-

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
 - increased choice from multiple manufacturers/service providers
 - 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



ITU Mandate on C&I

- 
- [WTSA Resolution 76](#): (WTSA-08, WTSA-12)

“Studies related to conformance and interoperability testing, assistance to developing countries, and a possible future ITU mark programme”

- [WTDC Resolution 47](#): (WTDC-10, WTDC-14)

“Enhancement of knowledge and effective application of ITU Recommendations in developing countries, including conformance and interoperability testing of systems manufactured on the basis of ITU Recommendations”

- [PP Resolution 177](#): (PP-10) *“Conformance and interoperability”*

- [RA Resolution 62](#): (RA 2012)

“Studies related to testing for conformance with ITU-R Recommendations and interoperability of radiocommunication equipment and systems”

- **ITU Council Decisions**: (2009, 2010, 2011, 2012, 2013, 2014)



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

ITU Conformity Database

- Meant to be voluntary and for information only
 - to showcase products (/systems/services) implementing and conformant to ITU-T Recommendations
- ITU Council 2011 decided to postpone the ITU Mark

Pillar 1 Objectives

- Produce interoperable standards
- Identify and promote conformity assessment on products/services against ITU-T Recommendation(s)
- Grow a community of telecom/ICT standardization and conformity assessment experts, facilitate mutual recognition of conformance testing results



Pillar 1 activity updates (1)

- latest ITU C&I Action Plan agreed by Council 13 (C13/24Rev1), latest report to Council 14 available (C14/24)
- ITU-T SG11 is taking lead as designated by WTSA-12
- ITU-T SGs are requested to:
 - identify ITU-T Recommendations with demonstrated market need for C&I testing
 - strengthen conformance requirements including convention for use of normative terms
 - develop **test use cases**, **application profiles** and **abstract test suites** for relevant base Recommendations if needed, in collaboration with partner SDOs if appropriate
- **3 Living lists** – key candidate technologies, pilot project, reference table
- 1st Pilot project – ITU-T M.3170-series (SG2)



Pillar 1 activity updates (2)

- Identify and promote conformity assessment on products/services against ITU-T Recommendation(s)
 - ➔ by competent testing labs
 - ITU recognition procedure of testing labs
 - ➔ SG11 new work item Q.TL-rec-pro
 - ➔ Correspondence Group to work on
 - ➔ by partner SDOs
 - Continua Health Alliance
- Discussion on collaborate with IEC continues

Pillar 1 activity updates (3)

■ Counterfeit

- ITU-T SG11 started a new work item “Technical Report on Counterfeit Equipment”.
- A workshop on this topic is being planned.

Pillar 2



Interoperability Events

ITU Interop events

- 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 standard making.
- ITU showcasing events
 - ~10 events so far, mostly on IPTV, NGN
 - testing event on ITU-T P.1100/P.1110, 12-16 May 2014, was very successful

Smart Cable TV and IPTV solutions, Jan 2013



Pillar 3

Capacity Building

Workshops and Training Courses

- Provide the necessary tools for participants to replicate knowledge in their country, taking into consideration national specificities
- Promote experience-sharing on testing, certification and accreditation among participants from different countries
- Present a practical learning on standards, regulations, real Lab experience and accreditation procedures
- Contribute to increased awareness and improved knowledge

2014 events

- Training workshop and courses planned for 2014
 - ARB region: Tunis, 17-21 March 2014;
 - AMS region (Spanish): Campinas, 5-9 May 2014;
 - AFR region: Tunis, July 2014;
 - AMS region (English): Campinas, August 2014;
 - CIS region: Moscow, September 2014.
- 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

Partnership and Collaboration

The ITU Secretariat signed MoUs with:

- CERT (Research and Studies Telecommunication Center, Tunisia)
- CPqD (Brazil)
- Sintesio (Slovenia)
- Tilab (Telecom Italia)
- ZNIIS (Russia)
- International Accreditation Forum (IAF)
- International Laboratory Accreditation Cooperation (ILAC)
- International Standardization Organization (ISO)
- UNIDO

C&I Guidelines

- Guidelines for developing countries on Establishing Conformity assessment Test Labs in Different Regions (2012)
- Guidelines for the development, implementation and management of MRAs on conformity assessment of Telecom Equipment (2013)
- Feasibility Study for a Conformance Testing Centre (2013)
- Guidelines for Establishing Conformance & Interoperability Regimes for Developing Countries (2014)



Assessment Studies

ITU is carrying out activities (e.g. for SADC) to:

- assess C&I infrastructure in regions/sub-regions/countries
- conduct analysis of the status in the regions
- promote regional agreements about possible locations for testing capabilities
- collaborate with regional experts in capacity building for accreditation and type approval testing
- move forward to establishing regional test centres



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

www.itu.int/en/ITU-T/C-I
conformity@itu.int
interop@itu.int



Thank You !