



# *ITU Conformity and Interoperability, Programme, Strategy and Implementation*

*6 – 10 Aug 2016,  
Tehran, Iran*

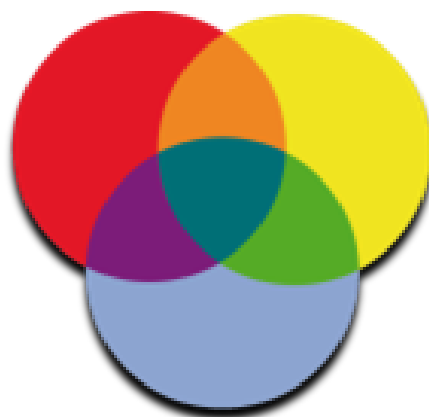
*Sameer Sharma  
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# C&I Programme

- To tackle different obstacles to the achievement of conformity and interoperability, expressed by member states in ITU`s Decisions.



Regional Presence



C&I Task Force

# Conformity Assessment benefits



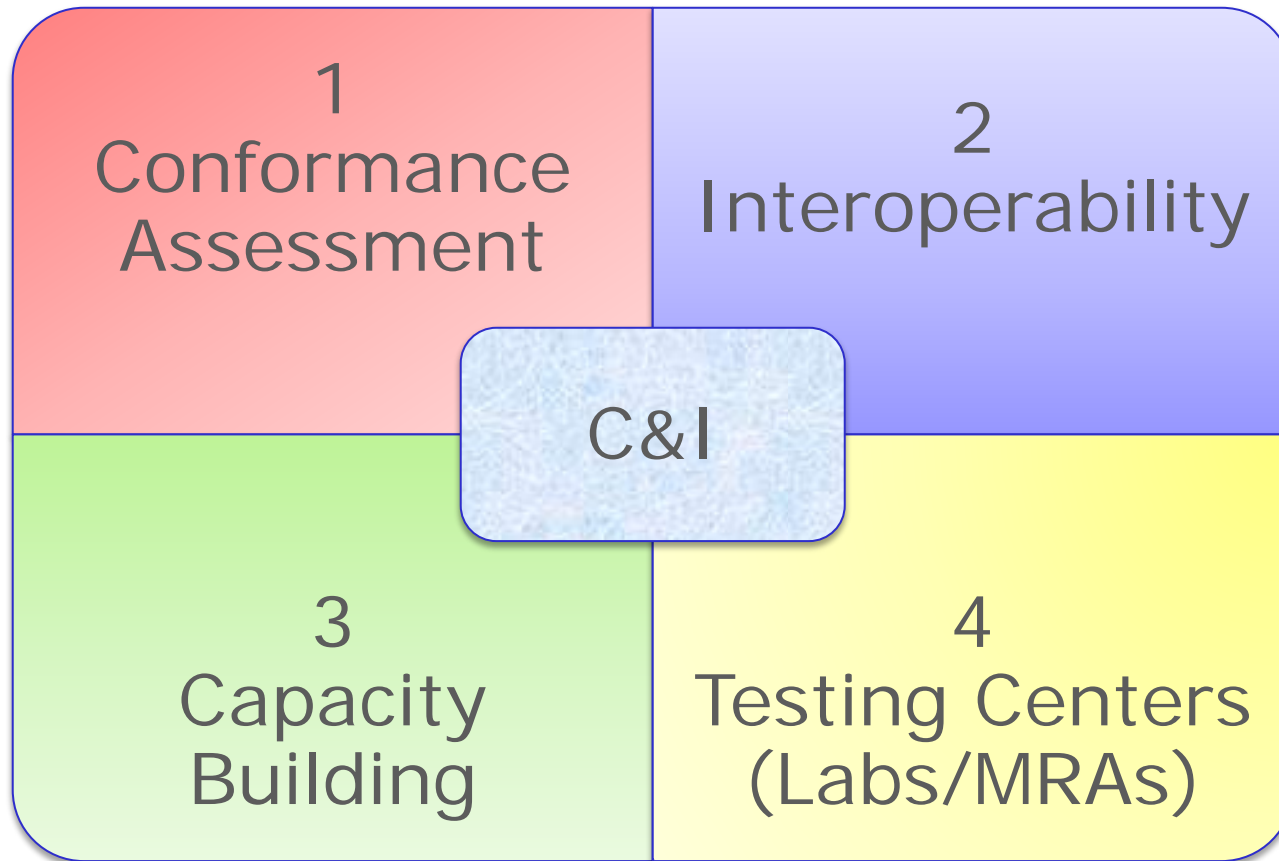
- Conformity assessment builds consumers' trust and confidence in tested products and consequently strengthens business environment and, thanks to interoperability, the economy benefits from business **stability, scalability and cost reduction of systems, equipment and tariffs.**
- While economically Conformance and Interoperability (C&I) **increase** market opportunities, encourage trade and technology transfer and contribute to the removal of technical barriers, they socially help spreading ICT services **availability and affordability** to all people at a good level of quality.

# ITU's Decisions – C&I Action Plan



- **Resolution 177** ITU Plenipotentiary Conference (PP-14, rev. PP-10)
- **Resolution 47** ITU World Telecommunication Development Conference (WTDC-10, rev. WTDC-14)
- **Resolution 76** ITU World Telecommunication Standardization Assembly (WTSA-08, rev. WTSA-12)
- **Resolution 62-1** Radiocommunication Assembly (RA-2012, rev. RA-2015)
- **ITU Council Decisions** (2009, 2010, 2011, 2012, 2013, 2014, 2015)

# "The ITU 4 Pillars"





# The ITU 4 “Pillars”

## ■ The Standardization Sector Side

- ❖ Conformity Assessment
- ❖ Interoperability Events

## ■ The Development Sector Side

- ❖ Capacity building
- ❖ Establishing C&I programmes in developing countries

# Telecommunication Development Bureau Side



- ❖ Capacity building
- ❖ Establishment of test centres and appropriate C&I Regimes including MRAs in developing countries.

ITU [Forums](#) with in-deep consideration for test centres and Capacity Building in the Regions  
**Held 2010 -2013:**

- ❖ Africa (Kenya 2010, Ghana 2011)
- ❖ CIS (Moscow 2011)
- ❖ Americas (Brasilia 2012)
- ❖ Arab States (Tunis 2012) Forum and Training
- ❖ Asia Pacific (Myanmar 2013)

**Held 2014:**

- ❖ CIS (Moscow)

# Capacity building and test centres

- ❖ ITU is implementing proposals on human **capacity building**
- ❖ ITU will assist developing countries in the establishment of test facilities and in cooperation with **international institutions**:
  - UNIDO
  - International Laboratory Accreditation Cooperation (ILAC)
  - International Accreditation Forum (IAF),...
  - Labs and R&D institutions

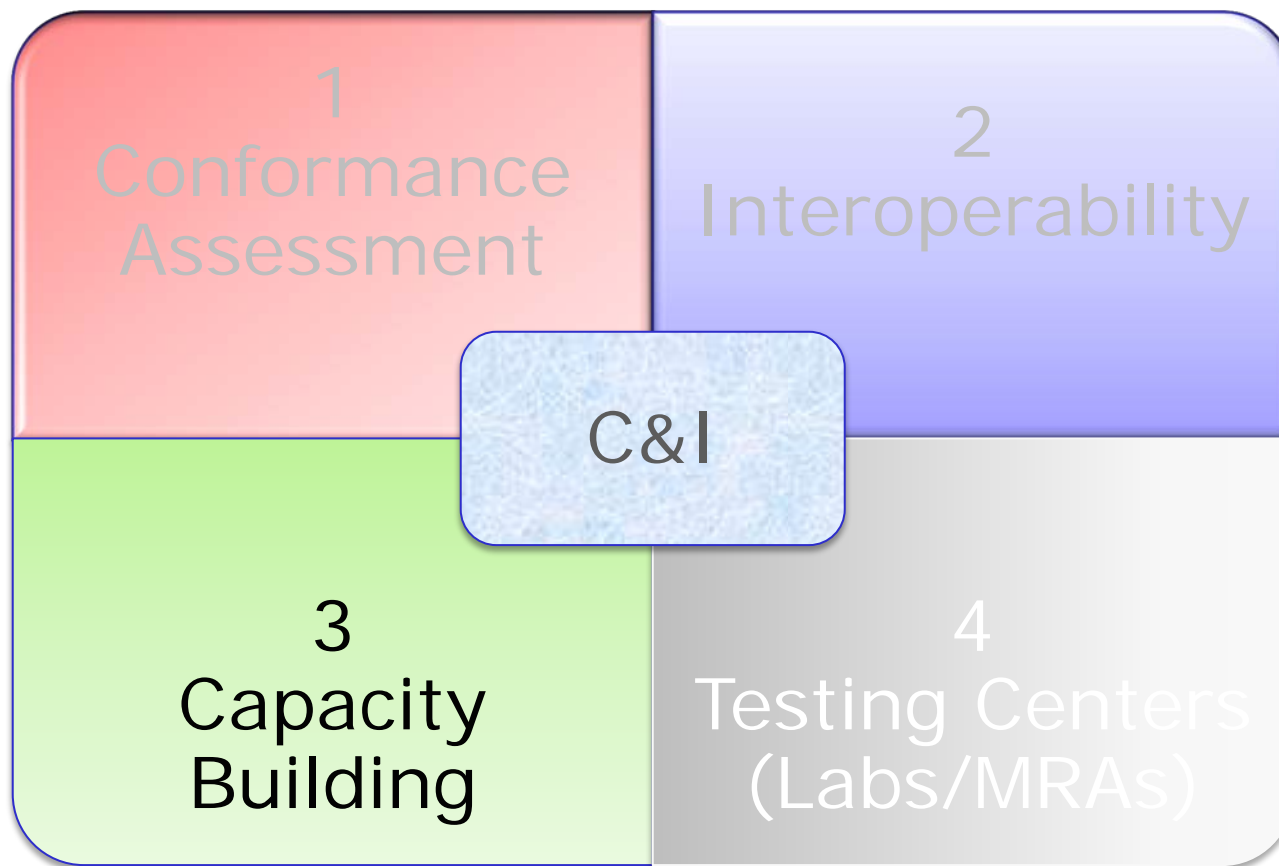


# Needs in Developing Countries for Test Labs and/or MRAs



- Conformity Assessment Bodies to contribute to create an orderly telecom apparatus market place
- Once reference standards and procedures are in place, test labs and/or MRAs can approve equipment for compliance
- Sharing test labs resources and using same procedures amongst countries and regions may lowering overall costs while continuing addressing regional priorities
- A robust framework (following international procedures – ISO/CASCO) needed for trust and confidence in test results and among test labs (MRAs)

# Pillar 3



# Partnership and Collaboration



The ITU Secretariat signed MoUs with [Testing centers](#) in the Regions for promoting activities of the C&I Programme such as capacity building events and direct assistance:

- AFR and ARB: CERT (Research and Studies Telecommunication Center, Tunisia)
- AMS: CPqD (Brazil)
- Europe: Sintesio (Slovenia) and Tilab (Italy)
- CIS: ZNIIS (Russia)
- ASP: Project proposal for collaboration under consideration by MIIT (China)
- International Accreditation Forum (IAF) and
- International Laboratory Accreditation Cooperation (ILAC)
- International Standardization Organization (ISO)
- UNIDO

# ITU Training activities on C&I



[http://www.itu.int/en/ITU-D/Technology/Pages/CI\\_Events.aspx](http://www.itu.int/en/ITU-D/Technology/Pages/CI_Events.aspx)

ITU Academy – C&I training

- CIS Countries NGN integration testing, Moscow (Russian Federation), 2010 and 2011
- Africa and Arab Regions, Tunis 5-7 Nov 2012
- ARB Region, Tunis 2-6 April 2013 (EMC Compatibility)
- Africa Region, Tunis 28 October-1<sup>st</sup> November 2013 (EMC Compatibility)
- Americas Region, Campinas, 24-28 June 2013 (EMC Compatibility)
- ARB Region, Tunis 17-22 March 2014 (Mobile terminals)
- Americas Region, Campinas (Brazil) 12-16 May 2014, (Mobile terminals)
- Training Course on Conformance and Interoperability Testing for the Africa Region, 23-27 June 2014, Tunis (Tunisia)
- CIS Region: ITU Virtual Laboratory for Remote Tests of Equipment, New Technologies and Services", 10-12 November 2014, Moscow (Russian Federation)



# ITU Training activities on C&I (cont.)

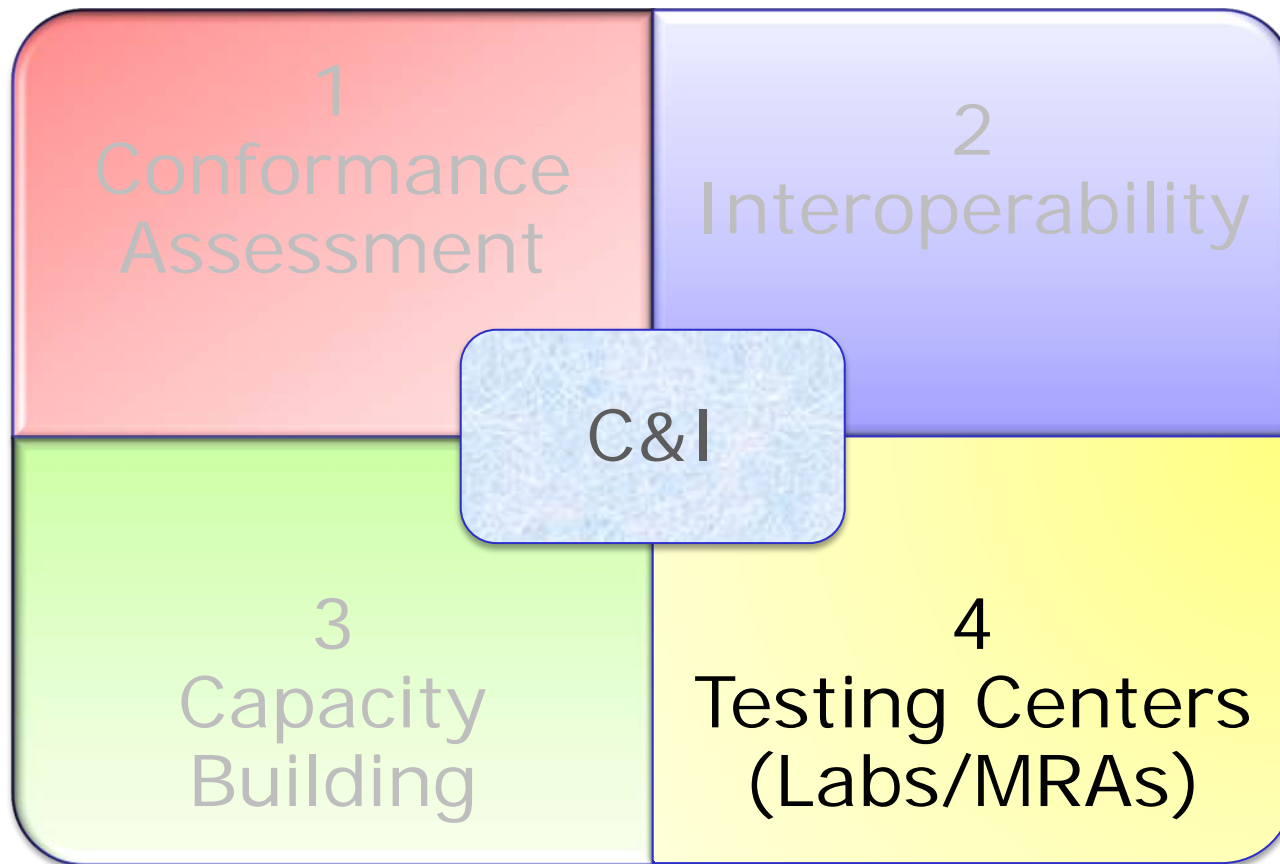
- Training Course for the Arab Region on Type Approval Testing for Mobile Terminals, Homologation Procedures and Market Surveillance, 20-24 April 2015, Tunis (Tunisia)
- Training Course for the Americas Region on Type Approval Testing for Mobile Terminals, NGN integration and interoperability testing, Homologation Procedures and Market Surveillance, 8-12 June 2015, Campinas (Brazil)
- Training Course for the Africa Region on Type Approval Testing for Mobile Terminals, Homologation Procedures and Market Surveillance, 14-18 December 2015, Tunis, (Tunisia).
- Training Course for CIS Region, Moscow (Russian Federation), 7-9 July 2015
- ITU Asia-Pacific Centres of Excellence Training on Conformity and Interoperability, Beijing, P. R. China, 12-16 October 2015

# Training Goals



- The ITU Training on C&I – is a capacity event in the framework of the Conformity and Interoperability Programme that has as objective:
  - **Improve knowledge** of participants through the presentation of up-to-date information/technologies
  - Contribute to **increase awareness** on the relevance of C&I testing
  - Provide the necessary tools for participants to **replicate knowledge in their country**, taking into consideration national specificities
  - **Promote experience-sharing** on Certification/Homologation process, Lab. Accreditation and testing among the participants from different countries in Conformance and Interoperability field
  - Present a practical learning on **standards, regulations, real Lab experience** and **accreditation procedures**.

# Pillar 4

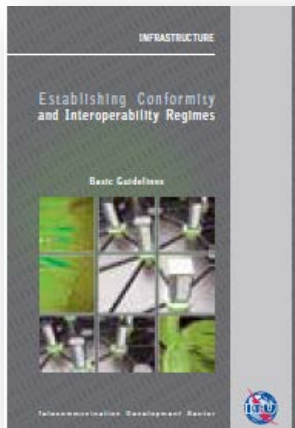


# ITU C&I Guidelines



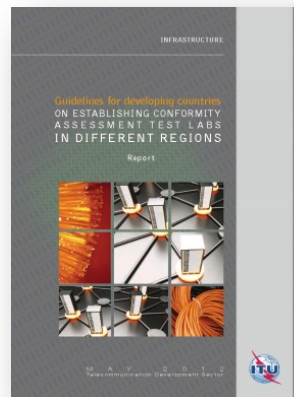
## **Establishing Conformity and Interoperability Regimes – Basic Guidelines (2014)**

These Guidelines address challenges faced by developing countries as they plan and review their own C&I regimes. Aspects covered by this publication include, inter alia, conformity assessment procedures; legislation to promote an orderly equipment marketplace; surveillance; coordination across regulatory agencies; and relevant international standards.



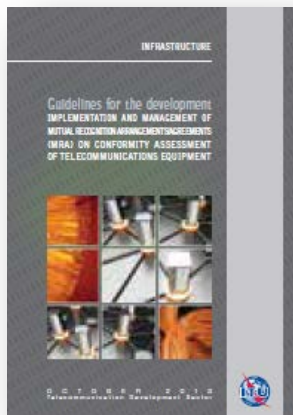
## **Guidelines for developing countries on Establishing Conformity assessment Test Labs in Different Regions (2012)**

This set of guidelines is the first publication on C&I, its valuable content includes information concerning: The process required for building testing labs; A site analysis (e.g. existing testing labs, know-how); Collaboration mechanisms; Best practices; Reference standards and ITU Recommendations



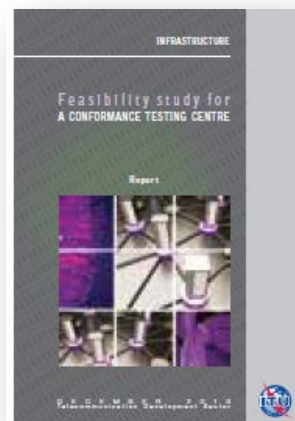
## **Guidelines for the Development, Implementation and Management of Mutual Recognition Arrangements/Agreements on Conformity Assessment (2013)**

These guidelines promote the understanding and establishment of Mutual Recognition Agreements (MRAs) on conformity assessment that are intended to promote efficiency and resource sharing as well as to streamline the flow of products among participating Parties such as ITU Member States and private sector organizations, such as testing laboratories



## **Feasibility Study for the establishment of a Conformance Testing Centre (2013)**

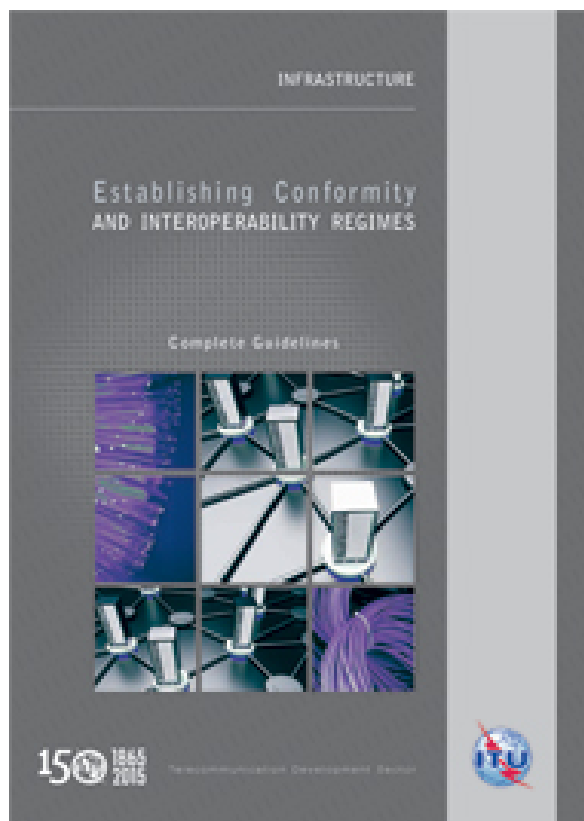
This feasibility study describes environments, procedures and methodologies to be adopted to establish, manage and maintain a testing center covering different kinds of conformance and interoperability testing areas







# New ITU C&I Guidelines



## Establishing Conformity and Interoperability Regimes – Complete Guidelines (2015)

These Guidelines compiled from a careful collection of international best practices, address challenges faced by developing countries as they plan and review their own C&I regimes. Aspects covered by this publication include, inter alia, conformity assessment procedures; the right type of approval system, the legislation required to promote an orderly telecommunication service and marketplace; the calculation of fees, and the ideal enforcement and Surveillance; coordination across regulatory agencies; relevant international standards.

# Direct Assistance on C&I



A number of countries have expressed strong interest and requested direct assistance (e.g. Sri-Lanka, Kiribati, Mongolia, Zambia, Cameroon, Cote d'Ivoire) in establishing C&I infrastructure and procedures

The Direct Assistance provided through the Regional Offices will provide support taken into consideration all C&I aspects, as:

- **Regulatory framework**
- **Institutions roles and typical procedures**
- **Mutual Recognition Agreements**
- **Funding**
- **National and Regional test centres and harmonized C&I programmes: Roadmap and Feasibility Study**

# Conformance Assessment Procedures



Procedures for establishing a conformance assessment regime may include the following procedures:

- A. Query for new products to be homologated**
- B. D. Import procedures for testing proposals**
- c. Reference Standards for conformity assessment**
- D. Test, Recognized Laboratories, Test Reports**
- E. Issuing and/or validating a Certificate of Conformity**
- F. Issue of the Homologation (or acceptance)**
- G. Suspension and Withdrawal of the Homologation Certificate**
- H. Monitoring, Enforcement, and Sanctions and Post-Market Surveillance**

# C&I Regional Assessment Studies



The C&I Assessment Studies looks for promoting the establishment of Harmonized C&I Programmes, when possible.

It will collaborate to improve **regional integration** and foster the availability of highly qualified institutions (as Laboratories, Certification and Accreditation Bodies)

In an overall analysis, the Assessment Studies contributes to:

- **Bridging the Standardization Gap,**
- reducing the **Digital Divide,** and
- as is inherent to ICT technologies development, **strengthens business environment for global players.**

# C&I Regional Assessment Studies



- C&I infrastructure in regions/sub-regions/countries are being assessed
- Analysis of the status in the regions are being conducted
- Looking for promoting regional agreements about possible locations for resources (Labs), agreements and testing capabilities
- Close collaboration with regional experts in addressing capacity building activities, accreditation and type approval testing.
- Moving forward to establishing regional test centers and/or MRAs as appropriate



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# C&I Regional Assessment Studies



## Roadmap

- Conformity Assessment Bodies will contribute with an orderly telecom apparatus market place
- Once standards and procedures are in place, test labs and/or MRAs can approve equipment for compliance
- Sharing test labs resources and using same procedures amongst countries and regions, lowers overall costs while continues addressing regional priorities
- Setup of a robust framework (base on international procedures – ITU, ISO, IAF, ILAC, etc.) needed for trust and confidence in test results and among test labs

# C&I Activities planned for 2016



- **Assessment Studies:**
  - a) Follow Up for Maghreb, SADC, EAC, Central America, Caribbean: ITU assistance on establishing national laboratories/regional Laboratories and/or MRAs
  - b) New C&I Assessment Study for Central Africa
  
- **Direct country assistance:** Specific training on C&I such as Market Surveillance, Analysis of Certificates and documentations for Homologation Procedures; b) Regulatory issue for revision/establishment of National C&I regimes; ICT standards for type approval; implementing technical collaboration or MRAs with other countries; Feasibility Studies for building C&I laboratories.
  
- **Training on C&I** (ASP, ARB, AFR, CIS): 1. C&I Regimes: Market surveillance, Analysis of Certificates and documentation for Homologation Procedures, best practices for developing countries; 2. C&I testing domains: Mobile terminals, wireless technologies and broadband.





# ITU Cooperation

- Analysing the status of resources in the regions
- Finding regional agreements about possible locations for resources/ MRAs and testing capabilities: establishing Forums of Experts at Subregional Level
- Participation in Capacity Building activities, accreditation and certification
- Participation in the creation of a common C&I regime: MRAs and regional test laboratories