



ASIA-PACIFIC TELECOMMUNITY

2<sup>nd</sup> APT/ITU Conformance and Interoperability Workshop

(C&I-2)

26 August 2014, Bangkok, Thailand



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# Regional Workshop for ASP on Conformance and Interoperability

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# Regional Workshop for ASP on Conformance and Interoperability

Bangkok, 26 August 2014

## ITU C&I Programme Pillars 3 and 4

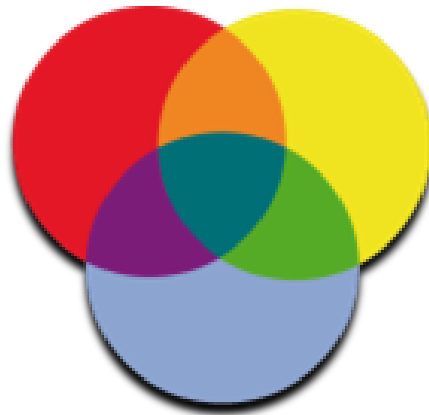
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# C&I Programme

- 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



# Lack of Standards or no Conformity to Standards

- *Poor products performance, poor requirements*
- *Poor products on the market*
- *Poor quality or no service*
- *Company image & market share*
- *No Interoperability*
- ***Poor or lack of broadband services to peoples***

# Interoperability for global digital economy



- Developing countries experiencing huge interoperability problems demand action by the ITU to redress the *interoperability dilemma*
- Results in *delays* in full participation in the *global digital economy* and impact on social development
- Delivery of e-services requires global standards and *secure interoperable transport platforms*
- Need to *facilitate market penetration* by avoiding multiple testing and certification, resulting from *regulatory and customer reactions to the risks of non-compliance*



# Background and Context

- **ICT users have certain expectations regarding interoperability of products and services (regardless of who is the manufacturer or service provider)**
- **International Standards, national regulation and compliance**
- **Conformance assessment increases the probability of interoperability**

# Problems faced



- **Lack of performance and of compliance to conformity and interoperability requirements**
- **Market with large percentage of counterfeit products**
- **Developing Countries linked to one vendor; poor market competition and lack of technology neutrality**



# 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.

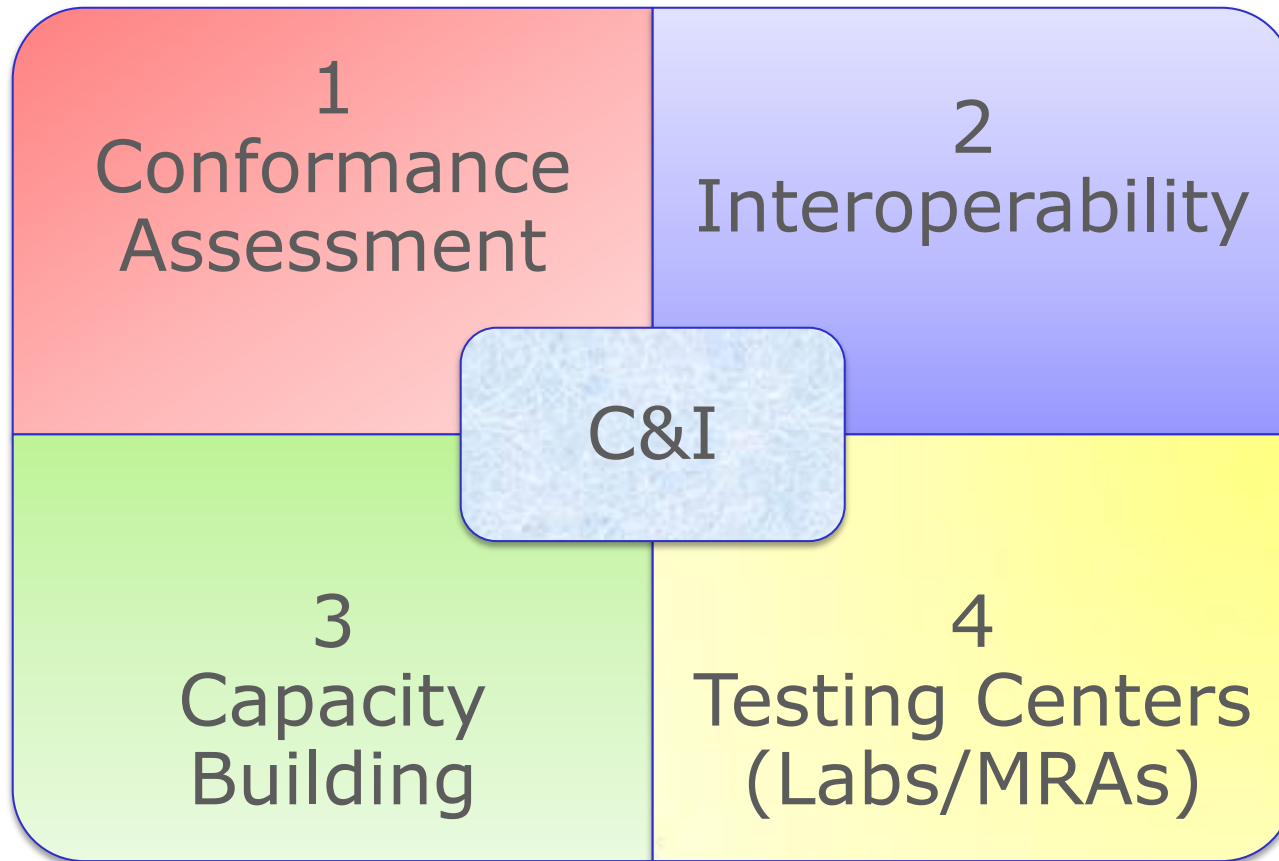


# ITU's Decisions – C&I Action Plan



- **Resolution 177** ITU Plenipotentiary Conference (PP-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** Radiocommunication Assembly (RA-2012)
- **ITU Council Decisions** (2009, 2010, 2011, 2012, 2013, 2014)

# “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

# The 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

# Questionnaire on the Status of Conformance and Interoperability in the regions



**Variety of Equipment, services and  
providers**

# Questionnaire Outline

June 2011 – 36 replies



- **Fixed and Mobile Networks** – (technologies, services, equipment)
- **Conformance and Interoperability**
  - legacy, Impact of C&I problems, type approval strategies in place, recognition of marking schemes (FCC, CE, ...)
  - measures to mitigate C&I problems
  - National Accreditation Bodies, Certification Bodies and Test Labs for Type Approval established?
  - MRAs with other parties ?
  - Market Surveillance procedures and practices
- **Training and Capacity Building initiatives**
- **Culture and Readiness** to participate in the ITU C&I Programme

# Questionnaire: Overall results



- Highlighted ***lack of interoperability***
- ITU to ***provide assistance and relief***
- ***capacity building*** and access to expertise is an essential ingredient
- initiatives to promote the use of **global testable standards**
- ***test events for*** compliance and interoperability ***welcome***

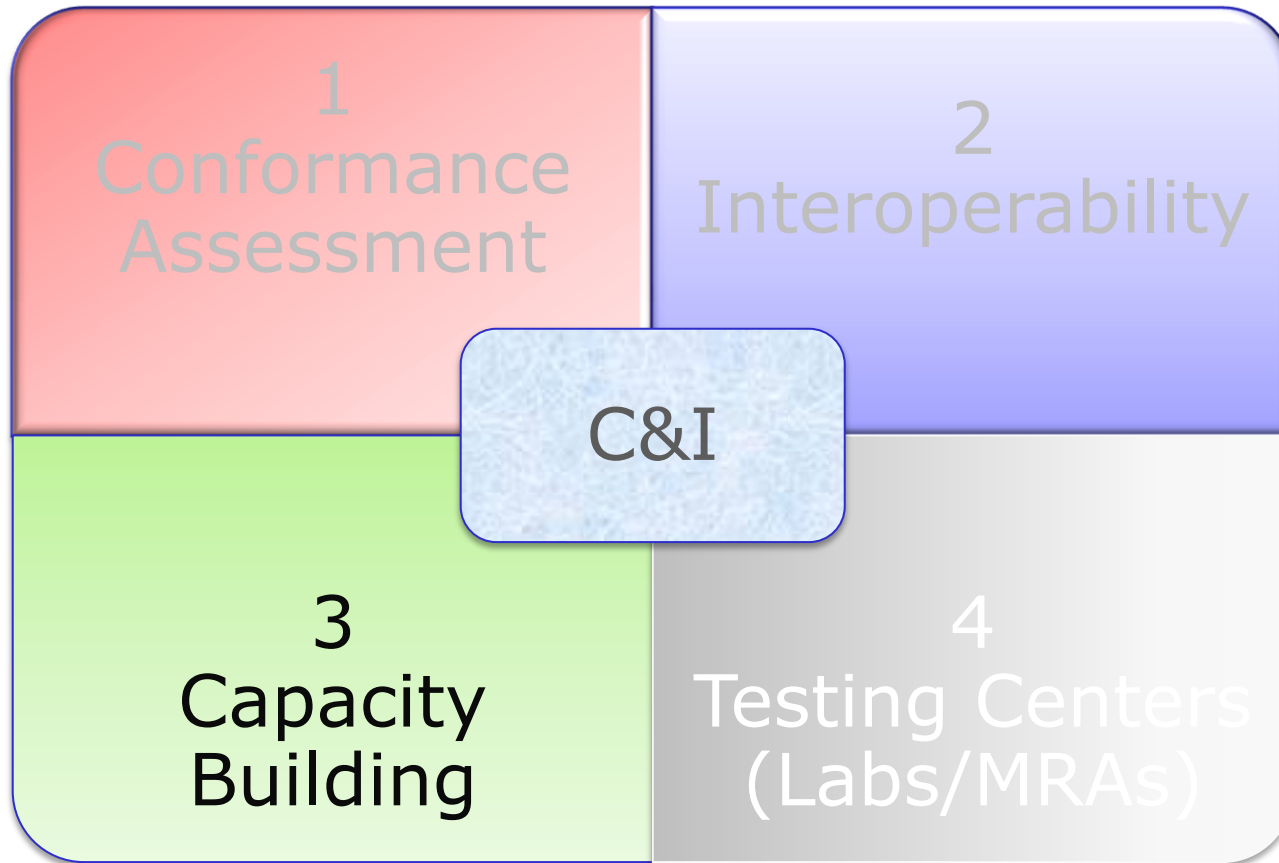


# Needs in Developing Countries for Test Labs and/or MRAs



- Conformity Assessment Bodies to contribute to create an orderly telecom apparatus market place
- Once standards and test suites are in place, test labs can check equipment for compliance
- Sharing test labs resources 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: agreement being finalized with 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)
- AFR Region, Tunis 23-27 June 2014 (Mobile terminals)
- Americas Region, St. Augustine (Trinidad and Tobago), 2 – 4 December 2014 (Mobile terminals)



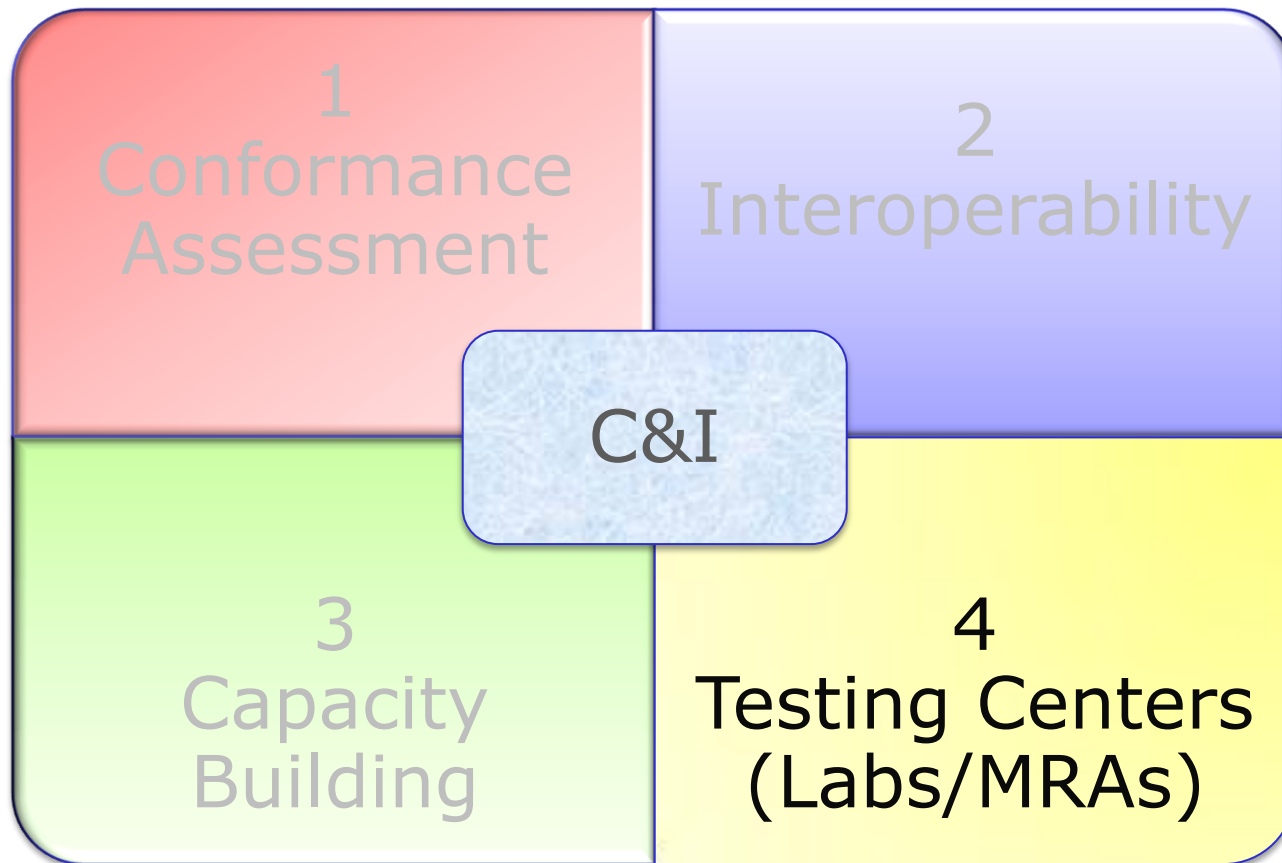
# Training Goals

- 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**.

# Training on C&I



# 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



# 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
- regional test centres and harmonized C&I programmes.

# Direct Assistance on C&I



- Objectives
  - Understanding of the challenges and identify strategies to increase the C&I infrastructure in the country
  - Facilitate universal access to ICT networks and applications/services by way of increased interoperability between equipment and systems from different vendors
  - C&I Programme and regional integration through the establishment of MRA or regional test centres to meet national needs
  - Draft roadmap to guide the implementation of further actions
- Experience in ASP Region: Mongolia (CRC)



# Assessment Studies

The 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.

# Assesment 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**

# Assessment Studies



## Roadmap

- Conformity Assessment Bodies will contribute with an orderly telecom apparatus market place
- Once standards and test suites are in place, test labs can check equipment for compliance
- Sharing test labs resources 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

# Assessment Studies



## Calendar

### □ Assessment Studies for SADC Region completed 2013)

- The results of the first assessment will be presented during the Subregional Workshop for SADC (Southern African Development Community) (October 2014, date and venue to be confirmed soon)



# □ Assessment Studies for Maghreb countries Mauritania, Morocco, Algeria, Tunisia, Libya (Ongoing 2014)



The results of the assessment study will be presented during the Subregional Workshop for Maghreb Countries, Tunis 9-11 December 2014



- Additional Studies for AMS (started 2014), ASP and AFR are planned for 2015

# WTDC-14, Outcomes on C&I

- Dubai Declaration
- Amendment of Resolution 47
- New ITU-D Study Group Question on C&I
- Objective 2, Output 2.2, Programme
- Regional Initiatives for AFR and ARB Regions





# WTDC-14 outcomes on C&I

- **The Dubai Declaration** recognized that conformance and interoperability of telecommunication/ ICT equipment and systems can increase market opportunities and reliability and encourage global integration and trade.
- **Resolution 47** was amended, reaffirming the importance of collaboration and coordination between the three ITU Bureaux in implementing the ITU C&I programme.

# WTDC-14 outcomes on C&I



## ■ **Study Group Question 4/2**, mandate:

“Studies of various issues related to conformance and interoperability are to be reported, and among others the description of the technical, legislative and regulatory framework that would be needed to implement appropriate C&I programmes by developing countries. Specifically, the following outputs are envisaged:

- a) Harmonized Guidelines on technical, legal and regulatory aspects of C&I Regime;
- b) Feasibility studies regarding establishment of laboratories in different C&I Domains;
- c) Guidance on the framework and procedures to establish MRA;
- d) C&I Regimes, case studies established at national, regional or global levels;
- e) Development of a methodology for assessing the situation of C&I regimes in place in the regions (or sub regions);
- f) Experience sharing and case studies reports on C&I programmes implementation.”

# WTDC-14 outcomes on C&I



**Outcomes of Objective 2, Output 2.2 of the Dubai Action Plan**, focusing on the following issues:

- a) Educating technicians, policy-makers and businesses on the importance of C&I procedures and testing, mobilizing the resources required to implement regional and national C&I programmes, in cooperation with other relevant regional and international organizations;
- b) Providing assistance to developing countries in the establishment of national, regional or subregional C&I programmes, and conducting assessment studies for facilitating the establishment of common conformance and interoperability regimes at national, regional and subregional level;
- c) Preparing guidelines on this process which outline the technical and human resources required and the international standards to be applied.

# 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**



## Going Forward in Asia-Pacific

- Setting up of test labs in the Asia-Pacific region for training and capacity building;
- Country assistance on building national framework
- Awareness raising amongst policy makers, regulators, industry and Academia
- Building partnerships in this area



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**Thank You !**

# Thank you!!



[C&I Portal](#)

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