

# **Radio Spectrum and Technical Standards Advisory Committee**

**SSAC Paper 7/2015 for information**

**Update on Testing and Certification  
of Telecommunications Equipment**

Office of the Communications Authority  
15 October 2015

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# Background (1)

Telecommunications Ordinance (CAP 106) empowers the Communications Authority (CA) to:

- (a) prescribes telecom standards
- (b) requires testing and certification of telecom equipment against prescribed standards
- (c) accredits organisations for the purpose of testing and/or certification of telecom equipment



## Background (2)

- Hong Kong Telecommunications Equipment Evaluation and Certification (HKTEC) Scheme provides for the evaluation and certification of TE and ISM equipment against prescribed standards
- The standards are mainly set to ensure:
  - electrical safety
  - prevention of interference
  - network compatibility
  - network interoperability

# Testing and Evaluation of Telecommunications Equipment

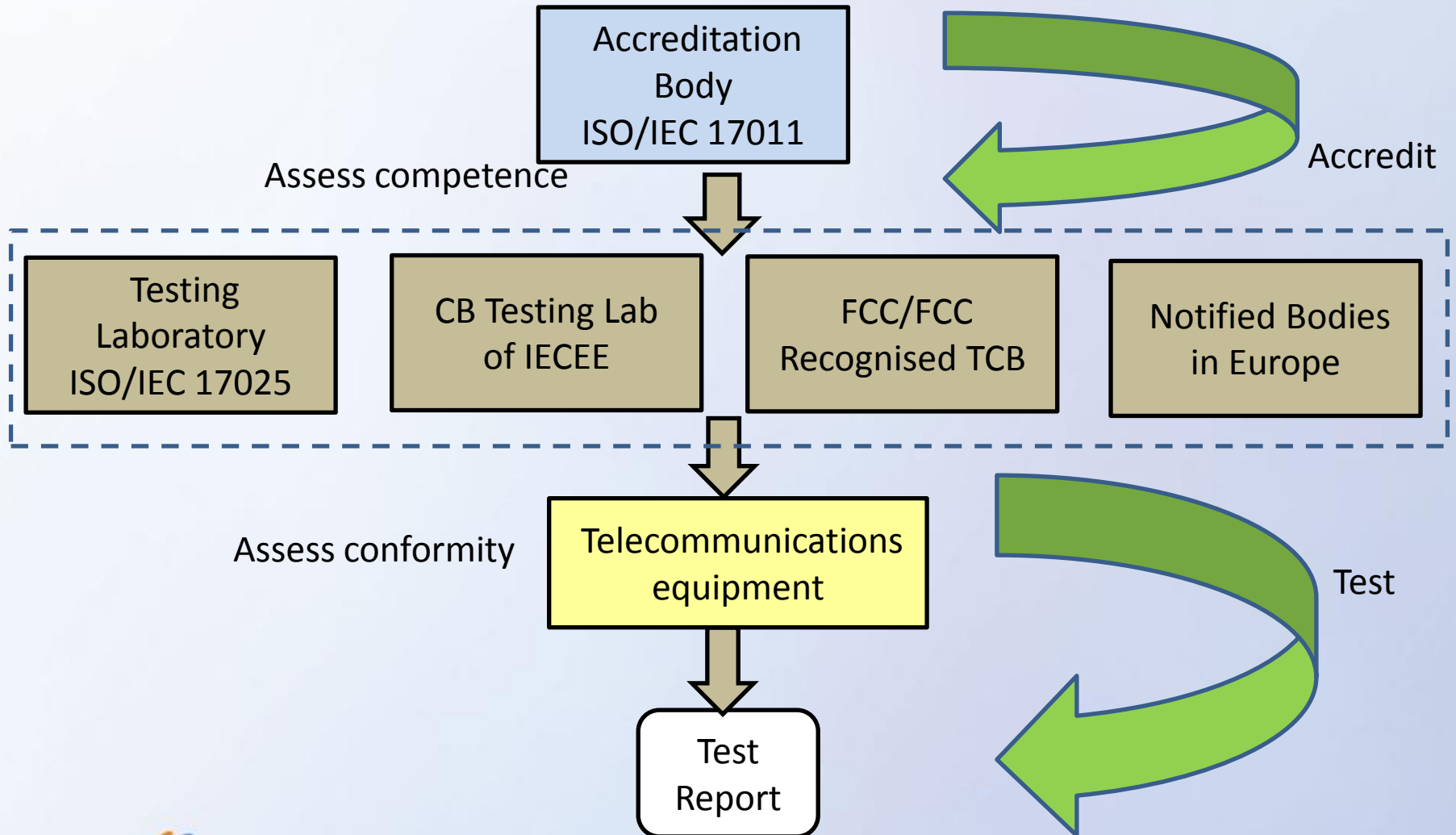
# Recognised Testing Agencies

- CA recognises the following parties as RTAs to perform testing of equipment against technical standards of Hong Kong
  - Testing agencies accredited to ISO/IEC 17025
  - Notified Bodies in Europe
  - FCC and Telecom Certification Body recognised by the FCC
  - CB Testing Laboratories recognized in the CB Scheme of the IEC System for Conformity Testing and Certification of Electrotechnical Equipment and Components

# Competence of RTAs (1)

- Obtained ISO/IEC 17025:2005 "General Requirements for the competence of testing and calibration laboratories"
- ISO/IEC 17025 assess capability on management system and relevant technical competence
- Essential qualification for all recognised testing agencies under HKTEC scheme
- Scope of accreditation covers HKCA specifications or equivalent standards

# Competence of RTAs (2)





# Registration of RTAs

- RTAs can apply to register with the CA
- On successful application, their names and scope of testing will be published by OFCA at:

[http://www.ofca.gov.hk/filemanager/ofca/common/Industry/telecom/standard/rtalist\\_en.doc](http://www.ofca.gov.hk/filemanager/ofca/common/Industry/telecom/standard/rtalist_en.doc)

- Manufacturers, suppliers and dealers can refer to the RTA list for reference
- OFCA reviews the registration status and scope of testing of registered RTAs on a regular basis

# Other Testing Agencies

- Local Certification Bodies accredited by the CA with accredited scope of testing covering HKCA specifications
- Conformity Assessment Bodies (CABs) recognised by the CA under Phase I Procedures of APEC Mutual Recognition Arrangement on Conformity Assessment of Telecommunications Equipment

# Certification of Telecommunications Equipment

# Certification Bodies (1)

Telecom equipment evaluated to be in compliance with the relevant standards may be certified by a Local Certification Body (LCB) or a Foreign Certification Body (FCB)

- LCB accredited by the CA under Section 32E of the Telecommunications Ordinance
- FCB recognized by the CA pursuant to Phase II Procedures of APEC Mutual Recognition Arrangement for Conformity Assessment of Telecommunications Equipment

## Certification Bodies (2)

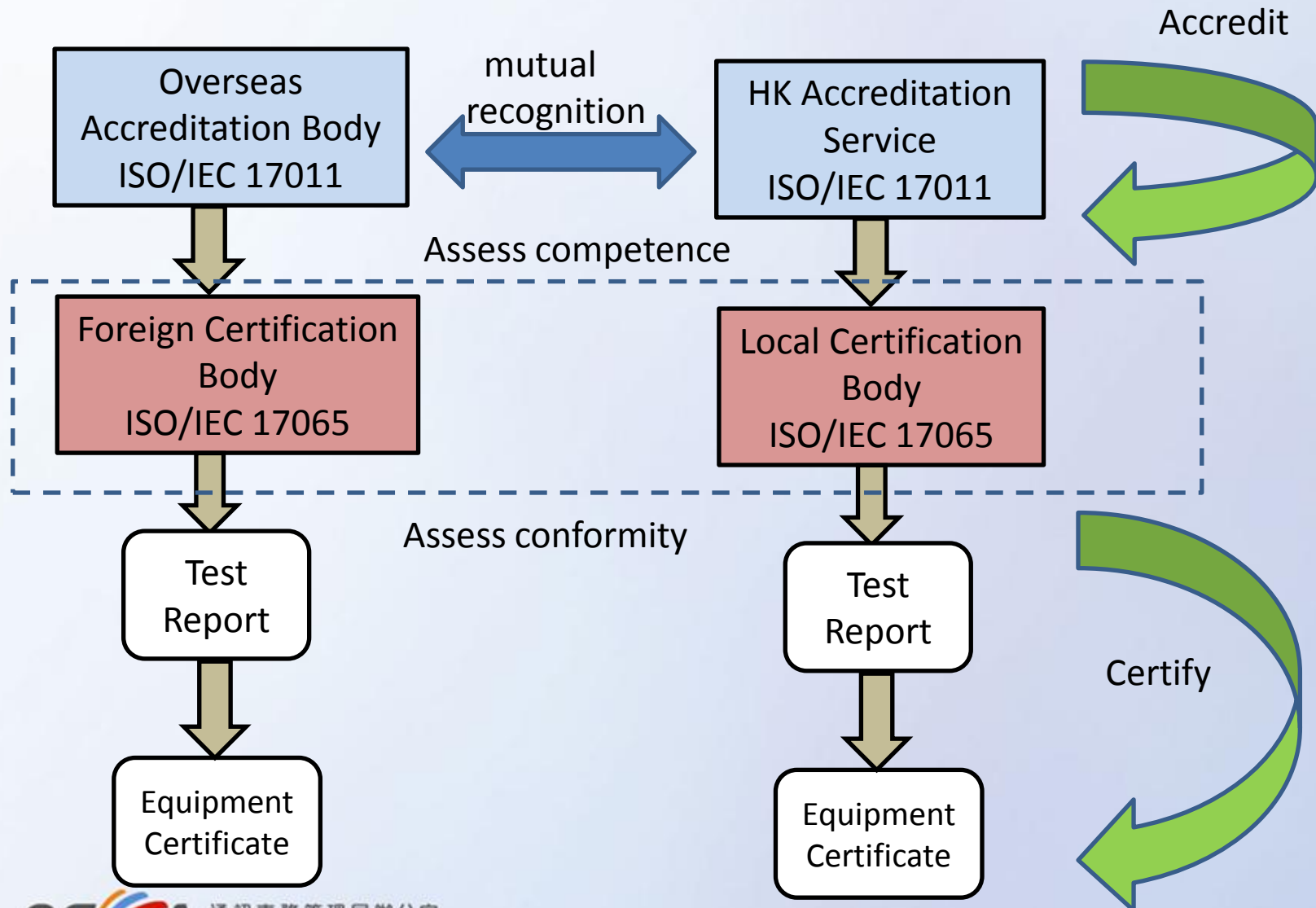
- LCB or FCB may issue a certificate to each model of certified equipment if :
  - it is tested by a RTA and demonstrates compliance with the prescribed HKCA specifications; or
  - it is certified by an overseas administration to technical specification equivalent to the relevant HKCA specifications
- Information of certified equipment is listed on OFCA's website for public reference

<http://app1.ofca.gov.hk/apps/cte/content/listEquip.asp?lang=E>

# Competence of Certification Bodies (1)

- Obtained ISO/IEC 17065 accreditation : “Conformity assessment – Requirements for bodies certifying products, processes and services”
- ISO/IEC 17065 superseded ISO Guide 65 after 14 September 2015 with a 3-year transition period from 14 September 2012
- All the accredited LCBs and recognised FCBs have obtained ISO/IEC 17065 accreditation before the deadline of transition period

# Competence of Certification Bodies (2)



# Local Certification Bodies (LCBs)

- Local organisations accredited by the CA to perform equipment certification services
- Obtain accreditation from the Hong Kong Accreditation Service:
  - ISO/IEC 17065 for certification of telecom equipment
  - ISO/IEC 17025 for testing of telecom equipment
- Provides equipment testing and certification services
- May subcontract testing to an external testing lab accredited to ISO/IEC 17025
- OFCA conducts audit to accredited LCBs on an annual basis



# Application for LCB Accreditation and RTA Registration

Organisations with expertise in testing and certification of telecommunications equipment can apply to OFCA as LCBs or registered RTAs.



The application guidelines are published at:

[http://www.ofca.gov.hk/en/industry\\_focus/telecommunications/standards/telecom/information\\_notes/index.html](http://www.ofca.gov.hk/en/industry_focus/telecommunications/standards/telecom/information_notes/index.html)

# **APEC Mutual Recognition Arrangement for Conformity Assessment of Telecommunications Equipment (APEC Tel MRA)**

# APEC Tel MRA (1)

- Government-to-government voluntary arrangements
- Adopted by the APEC Telecommunications and Information Working Group (APEC TEL) on 1 July 1999
- Administered by the APEC TEL Conformity Assessment and MRA Task Force
- MRA partners publish their technical regulations for which they will accept test reports and equipment certifications from Conformity Assessment Bodies designated by the other partners

# APEC Tel MRA (2)

APEC Mutual Recognition Arrangement for Conformity Assessment of Telecommunication Equipment



Streamline conformity assessment procedures



Mutual recognition and acceptance of testing and equipment certification

## Phase I

- Mutual recognition of **testing agencies** as Conformity Assessment Bodies
- Mutual acceptance of test reports

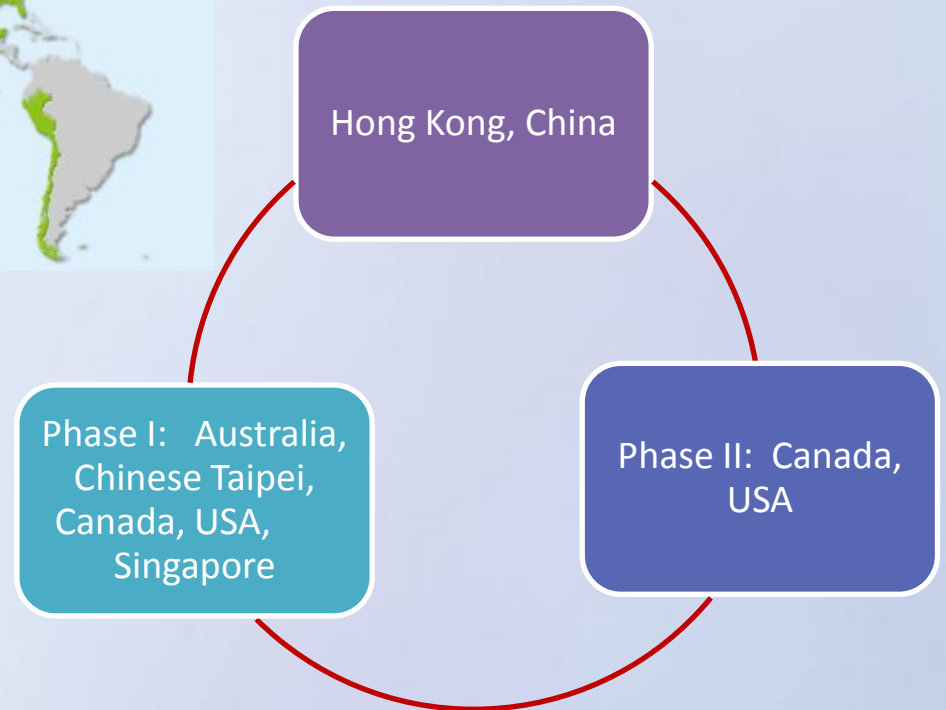
## Phase II

- Mutual recognition of **certification bodies** as Conformity Assessment Bodies
- Mutual acceptance of equipment certifications

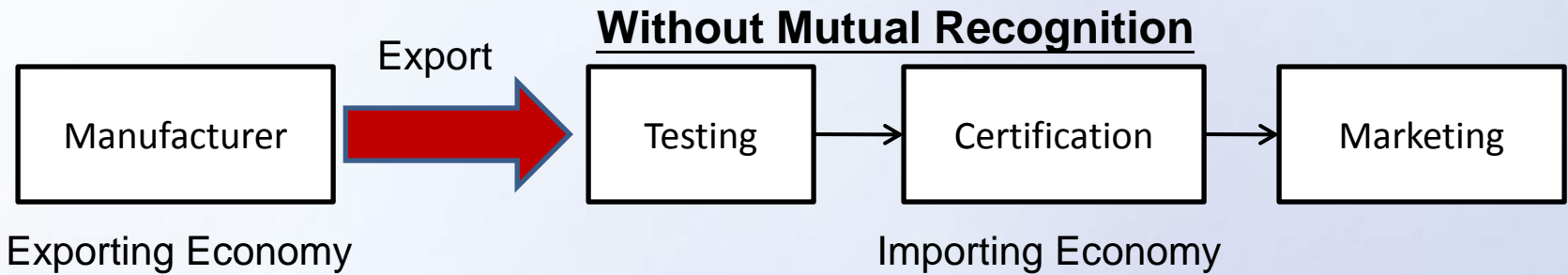
# APEC Tel MRA Partners



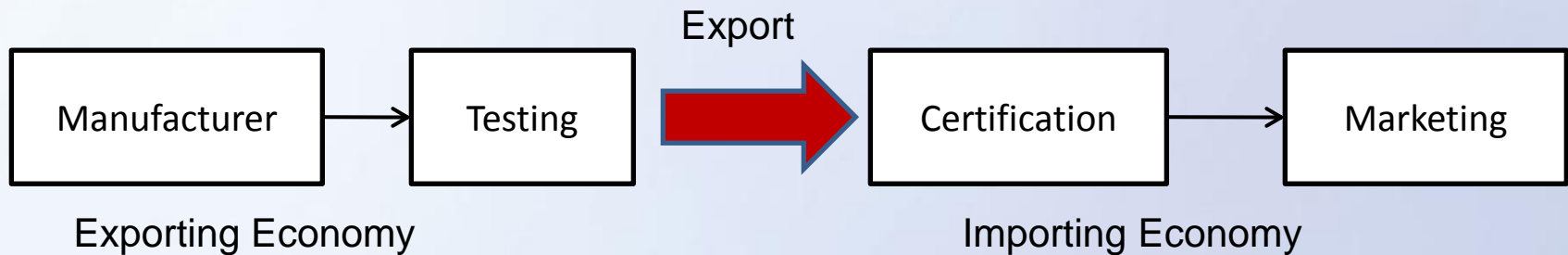
21 APEC Members  
Economies endorsed  
APEC Tel MRA



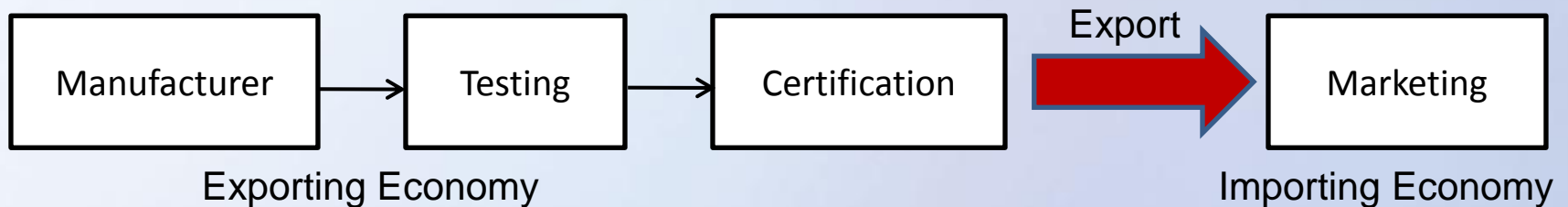
# APEC Tel MRA Benefits (1)



## MRA Phase I : Mutual Recognition of Test Results



## MRA Phase II : Mutual Recognition of Certifications



## APEC Tel MRA Benefits (2)

- Reduce costs for testing and certification
- Shorten time to supply equipment to market
- Increase transparency of regulations and conformity assessment processes
- Provide wide choices in conformity assessment bodies of telecom equipment

# Application as CABs under APEC Tel MRA

Organisations in APEC economies can apply through their Designating Authority as CABs for providing testing and certification services of telecommunication equipment for use in Hong Kong

Recognition

Testing Laboratories in Hong Kong can apply through OFCA (Designating Authority) as CABs to perform testing and certification to technical regulations of APEC economies

Designation

Information notes and guidelines about APEC Tel MRA are published at:  
[http://www.ofca.gov.hk/en/industry\\_focus/telecommunications/standards/telecom/apec\\_tel\\_mra/index.html](http://www.ofca.gov.hk/en/industry_focus/telecommunications/standards/telecom/apec_tel_mra/index.html)



# Data and Statistics

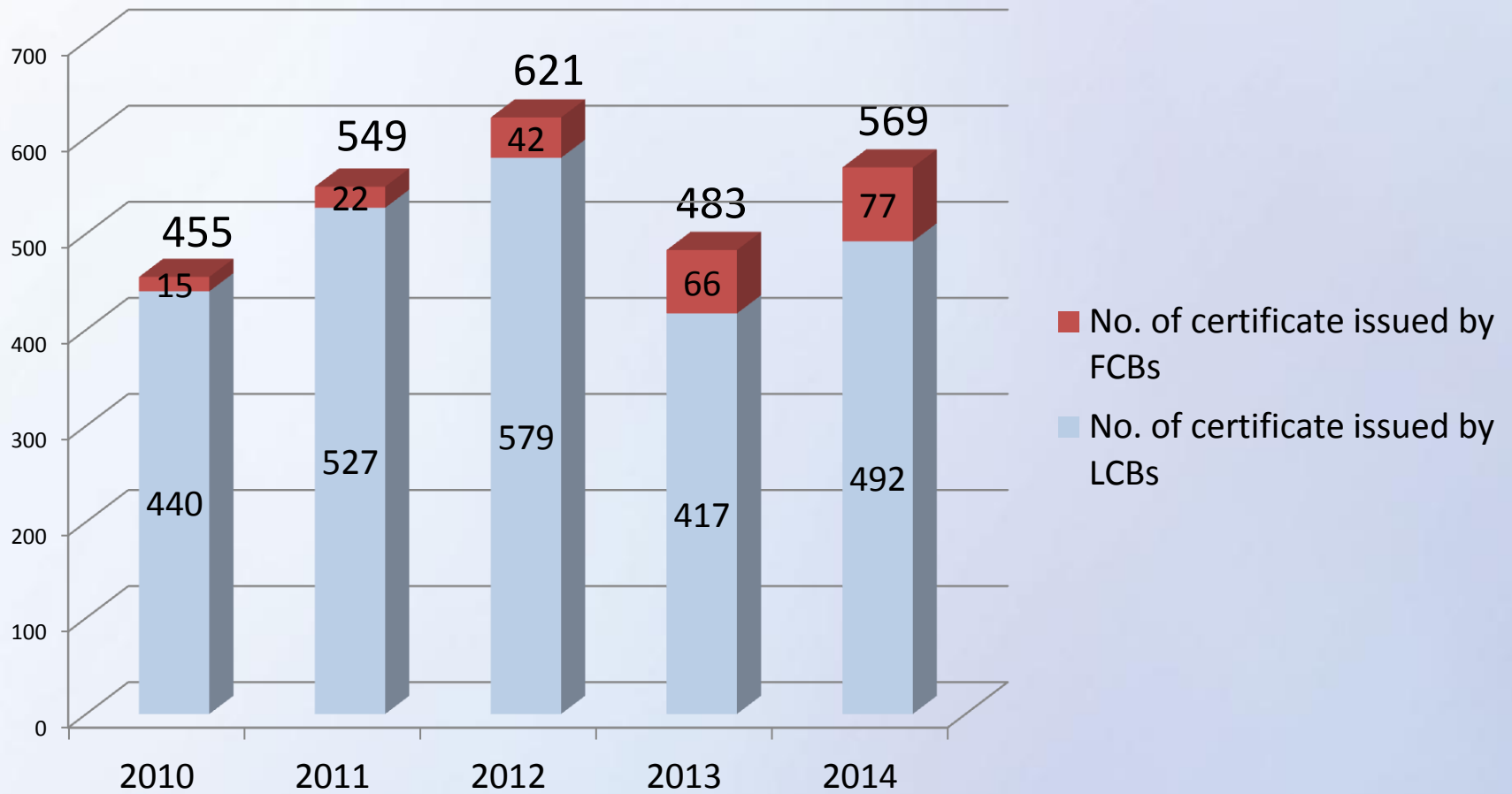
# Statistics on Testing Agencies and Certification Bodies (1)

- Registered RTAs: **38**
- CABs recognised to provide testing services pursuant to Phase I of APEC Tel MRA : **26**
- LCBs accredited to provide both testing and certification services : **3**
- FCBs recognised pursuant to Phase II of APEC Tel MRA for certification: **4**

# Statistics on Testing Agencies and Certification Bodies (2)

- Local firms designated as CABs for testing to the technical specifications of APEC economies via Phase I of APEC Tel MRA: **9**
- Local firms designated as CABs for certification to the technical specifications of APEC economies via Phase II of APEC Tel MRA : **1**

# Statistics on Certificates issued



# Thank You