Acceptance & benefits of IEC CA results : case studies

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WTO TBT Committee
Thematic Session
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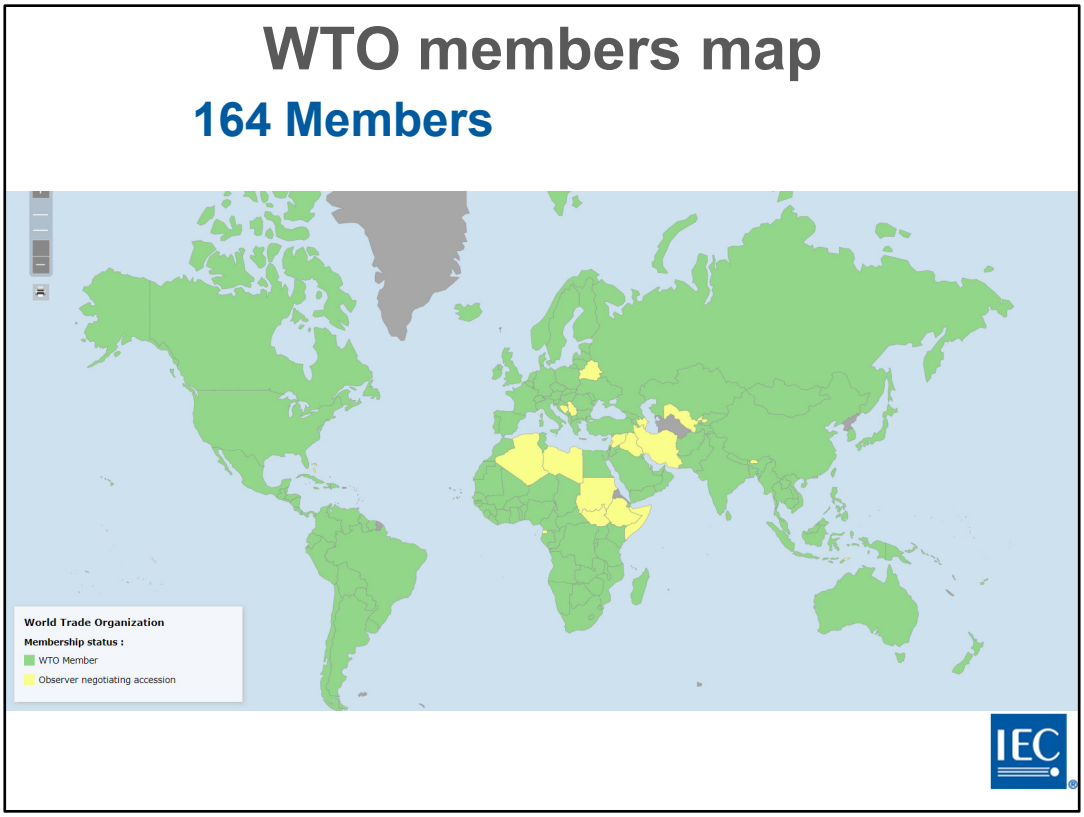
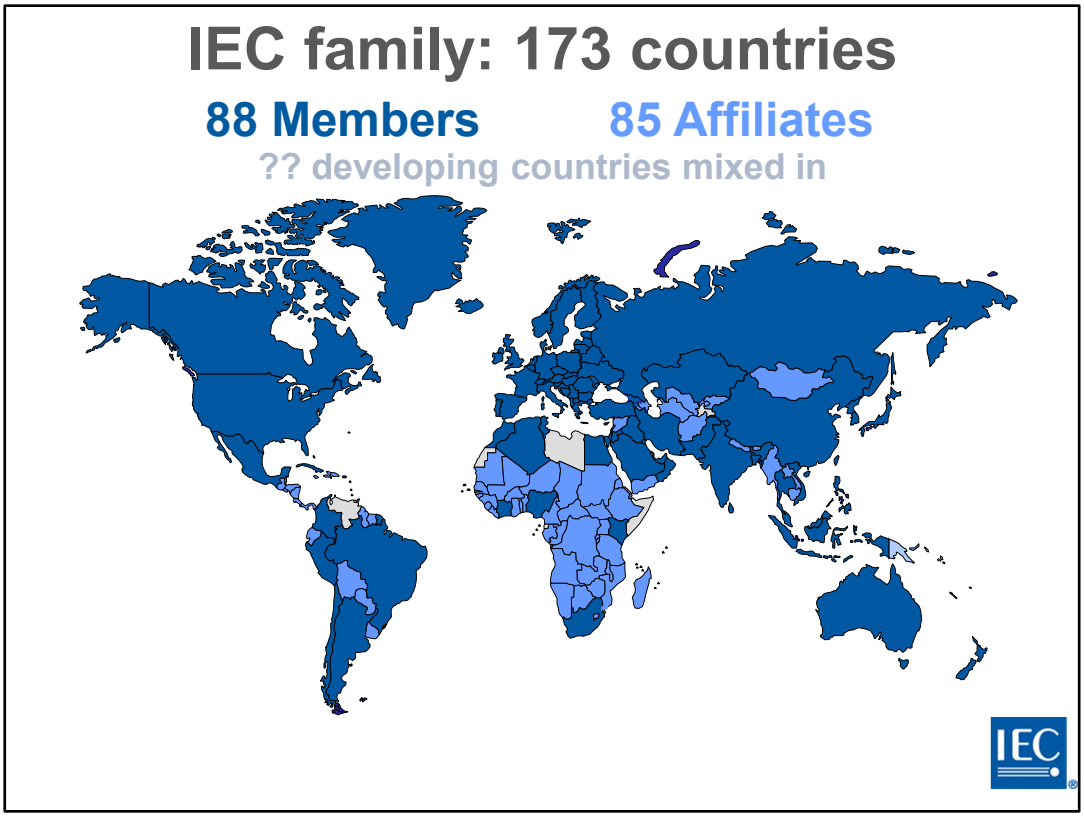
INTERNATIONAL ELECTROTECHNICAL COMMISSION



Just as a little background, this is a map of the WTO members of which there are 164.



And here is a map of the IEC family of countries, which is almost identical to the WTO map.

The IEC family has 173 countries of which 88 are Members and 85 are Affiliates. IEC doesn't refer to developing countries or least developed countries. Some developing countries are already Members of IEC. Rather IEC refers to Members and Affiliates.
IEC Affiliates can be thought of as IEC Members in training.

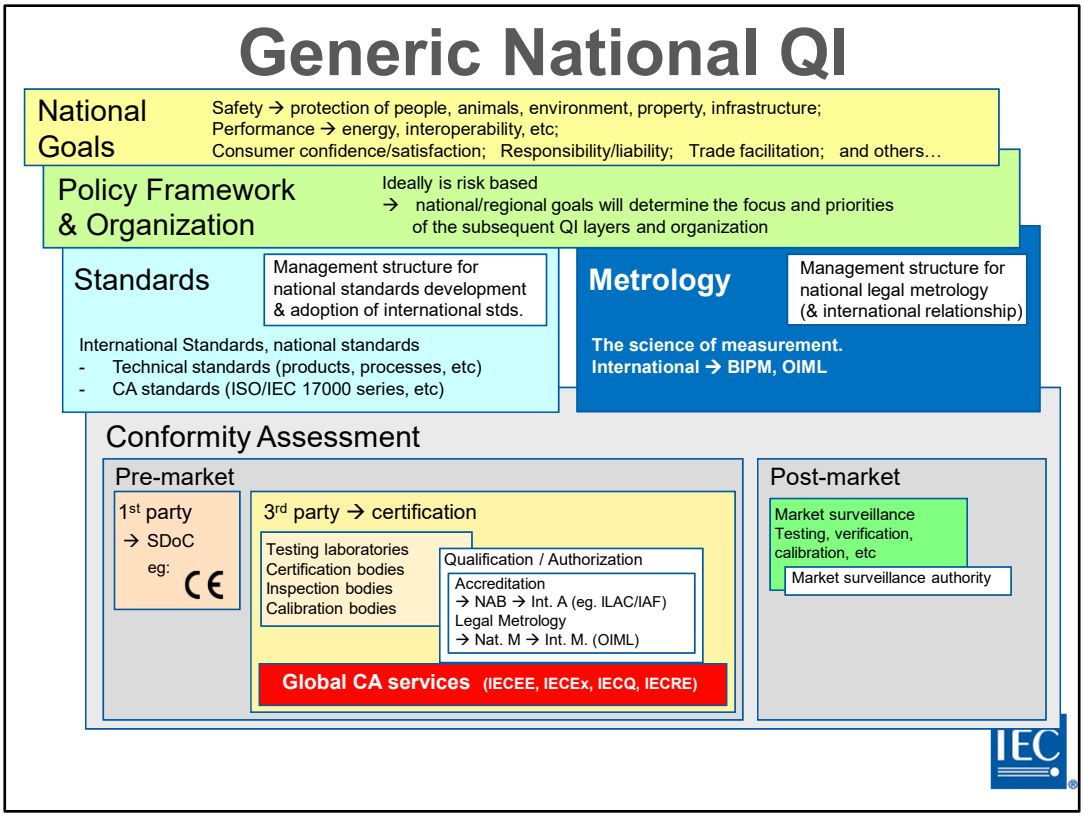
Almost all new IEC Members, now a days, come through the Affiliate Country Programme.

IEC Affiliate Countries

85 Affiliates

Afghanistan
Angola
Antigua & Barbuda
Armenia
Azerbaijan
Bahamas
Barbados
Belize
Benin
Bhutan
Bolivia
Botswana
Brunei Darussalam
Burkina Faso
Burundi
Cabo Verde
Cambodia
Cameroon
Central African Rep.
Chad
Comoros
Congo
Costa Rica
DRC Congo
Djibouti
Dominica
Dominican Rep.
Ecuador
El Salvador
Eritrea
Eswatini
Ethiopia
Fiji
Gabon
Gambia
Grenada
Guatemala
Guinea
Guinea Bissau
Guyana
Haiti
Honduras
Jamaica
Kyrgyzstan
Lao PDR
Lebanon
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Mauritius
Mongolia
Mozambique
Myanmar
Namibia
Nepal
Nicaragua
Niger
Palestine
Panama
Papua New Guinea
Paraguay
Rwanda
St Kitts & Nevis
St Lucia
St Vincent & the Grenadines
São Tomé & Principe
Senegal
Seychelles
Sierra Leone
South Sudan
Sudan
Suriname
Syrian Arab Rep.
Tanzania
Togo
Trinidad & Tobago
Turkmenistan
Uruguay
Uzbekistan
Yemen
Zambia
Zimbabwe

There are 85 Affiliate countries, and IEC has the Affiliate Country Programme to assit them to gain competencies in standardization and conformity assessment.



Todays subject is about a few case studies on the benefits of accepting IEC conformity assessment results. However, first of all, to put this subject into context, we can look very briefly at a generic national quality infrastructure.

National QI should always start at the top with national goals and objectives. Typical goals and objectives are safety for the population, for animals, for the environment, for property and for infrastructure. Other goals are economic, preventing product dumping, ensuring energy efficiency, developing the local economy, export and trade facilitation. The structure of the quality infrastructure should be put in place to achieve these goals.

The structure of the quality infrastructure is put in place through a national policy framework and organization. The policy framework may create incentive programmes and regulations. The incentive programs normally reward good behavour and the regulations normally prevent bad behavour. Good behavor may be defined by requirements in standards.

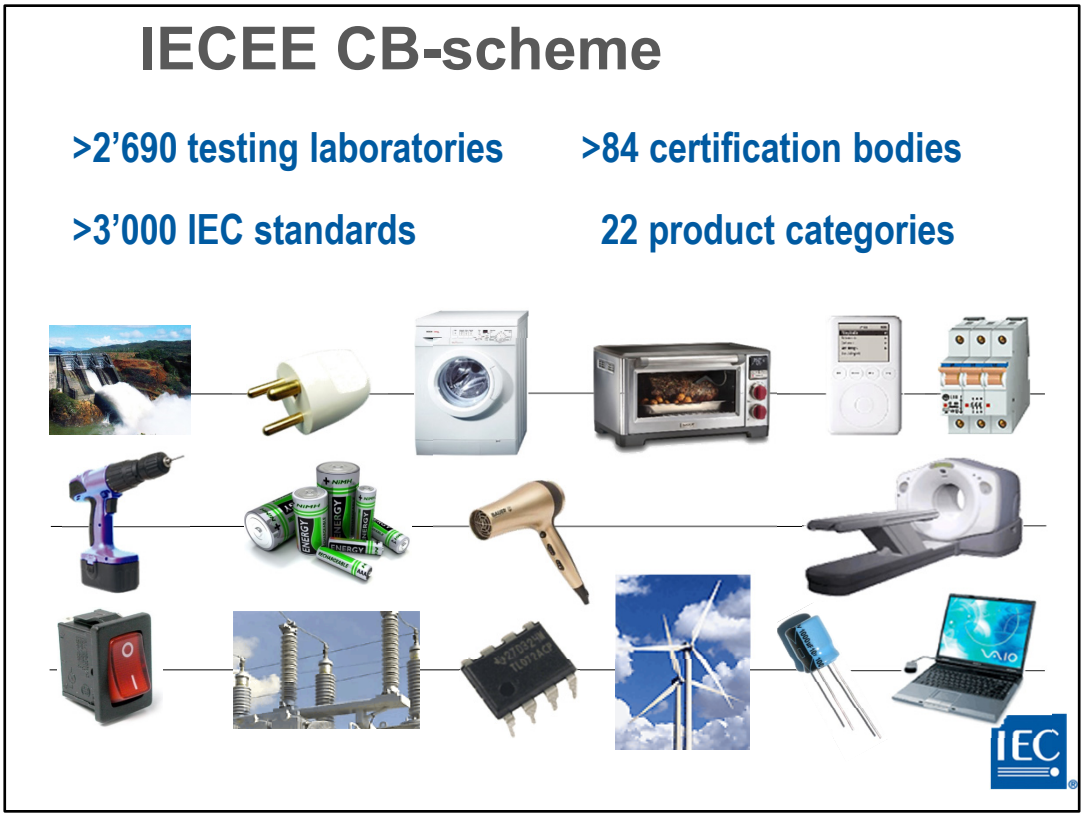
This means that the national organization should create competency for developing national standards, or create competency for national adoption of international standards. It also means that the national organization should create competency in metrology and legal metrology to ensure correct measurement systems and therefore correct billing and payment, and fair and honest trade.

Then comes the role of conformity assessment to demonstrate that the requirements in the standards have been met.

The policy framework may provide for both pre-market and post-market mechanisms.
With the pre-mark mechanisms relying on supplier's declarion of conformity for low risk products, and relying on 3rd party certification for higher risk products.
And post-market mechanisms mostly rely on market surveillance.

It is here in the national quality infrastructure, that IEC global certification services are used to create value.

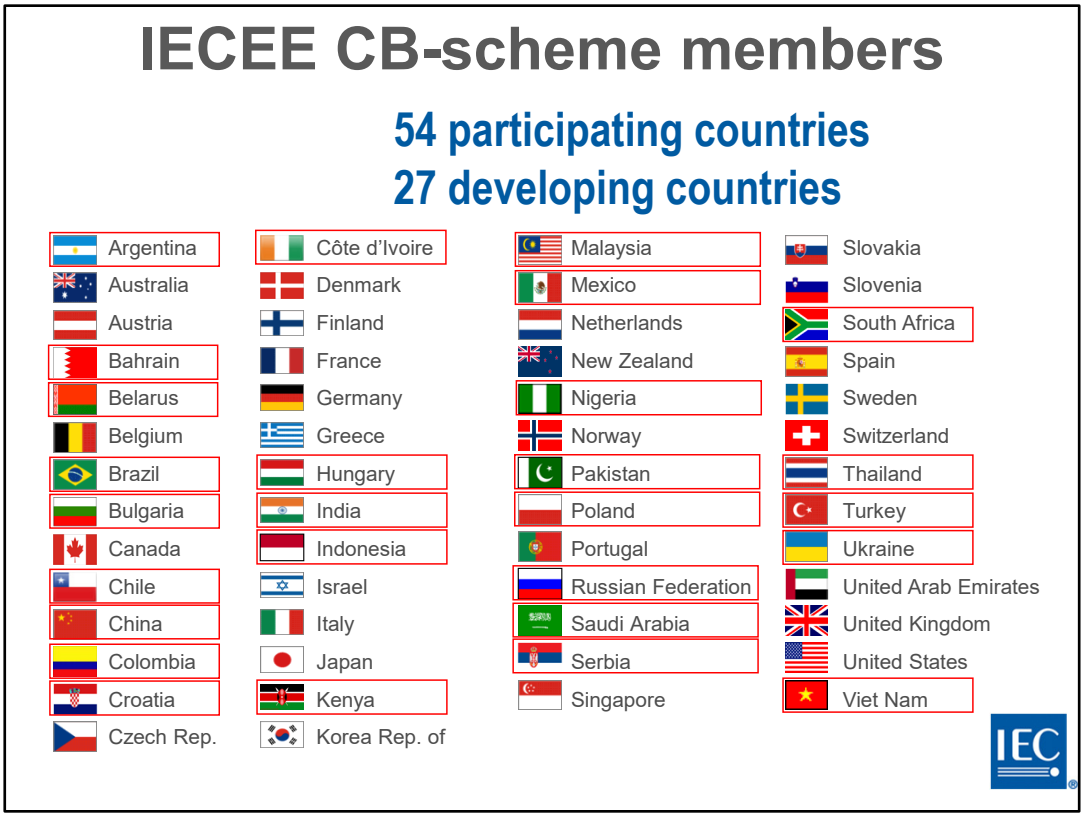
If a country has limited testing facilities or no testing facilities for electrotechnical products, then relying on IEC certificates for imported goods, is like having an international-level testing-laboratory, for free.



IEC has four global CA Systems, but the most relevant for this subject is the IECEE CB-scheme.

The CB-scheme has more than 2'690 testing laboratories and 84 national certification bodies, in 54 countries, and they test and certify to more than 3'000 IEC International Standards. This corresponds to more than 10'000 different product types.

There are 22 product categories covered by this scheme including, cables, batteries, electrical components, household appliances, industrial components and equipment, lighting, medical equipment, electricity generation, transmission and distribution, and so on.



The IECEE CB-scheme has 54 member countries of which 27 are developing countries under the International Monetary Fund definition.

All of these countries participate in the IECEE CB-scheme because they have testing laboratories and certification bodies.

They also participate by recognizing and accepting the certificates issued from within the CB-scheme.

Sometimes those certificates come from their own country and many times they come from a foreign country.

By recognizing these certifciates, the need for duplicating tests is avoided and trade is facilitated.

Although more than half of these countries are considered to be developing countries they are still sufficiently developed to have electrotechnical testing laboratories.

However, there are other countries, that are not as developed, that also use the IECEE CB-scheme services for the benefit of their national quality infrastructure.

Case Studies

Côte d'Ivoire 342 IEC International Standards adopted nationally

Ethipoia 251 IEC International Standards adopted nationally

Senegal 67 IEC International Standards adopted nationally

Togo 568 IEC International Standards adopted nationally

For example, Côte d'Ivoire has adopted 342 IEC International Standards as national standards. These standards represent thousands of electrotechnical products on the national market. Most of these products are imported.

The Côte d'Ivoirian authorities need to know that those imported products are safe and performant. They set technical requirements for safety and performance based on the national standards, or in this case, the adopted international standards.

Only products meeting those requirements can be sold on the local market.

But how to know that the requirements have been met ?

This is where they rely-on IECEE CB-scheme certificates.

The same is true for Ethiopia, Senegal and Togo.

None of these countries have testing laboratories with competencies for all of those imported products, but accepting the IEC certificates is like having an international-level testing-laboratory, for free.

Case Studies

www.iecee.org/certification/certificates

When goods arrive at the board, they are accompanied by shipping documents which include an IECEE CB-scheme certificate.

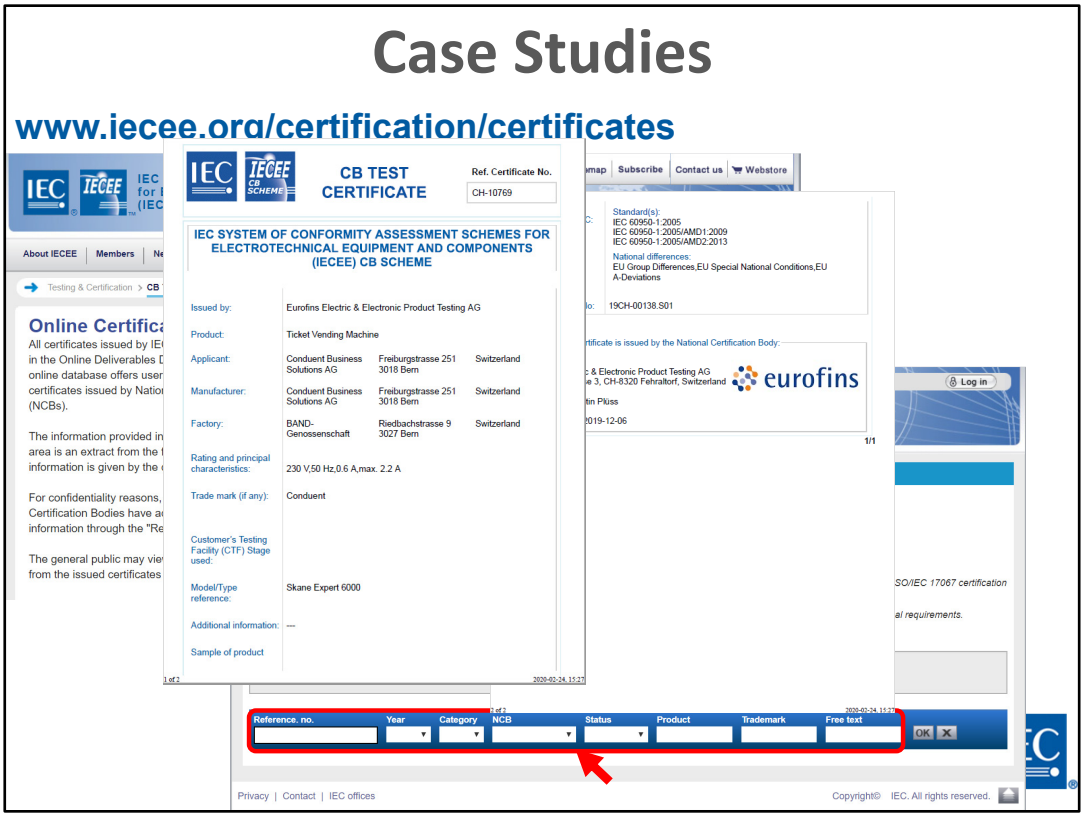
The certificate is proof of conformity to the required standard.

But how to know that the certificate itself is legitimate ?

This is where the IECEE online certificate system provides added value by authenticating the certificate.

Case Studies

www.iecee.org/certification/certificates



If the certificate is not on the online database, then it isn't a valid certificate.

On the online database, the information about certificates is available at two levels.

The first level provides an extraction of essential information from the certificate. This first level is available to the general public.

The second level provides a copy of the certificate itself.
Access to this second level is available using an access code.

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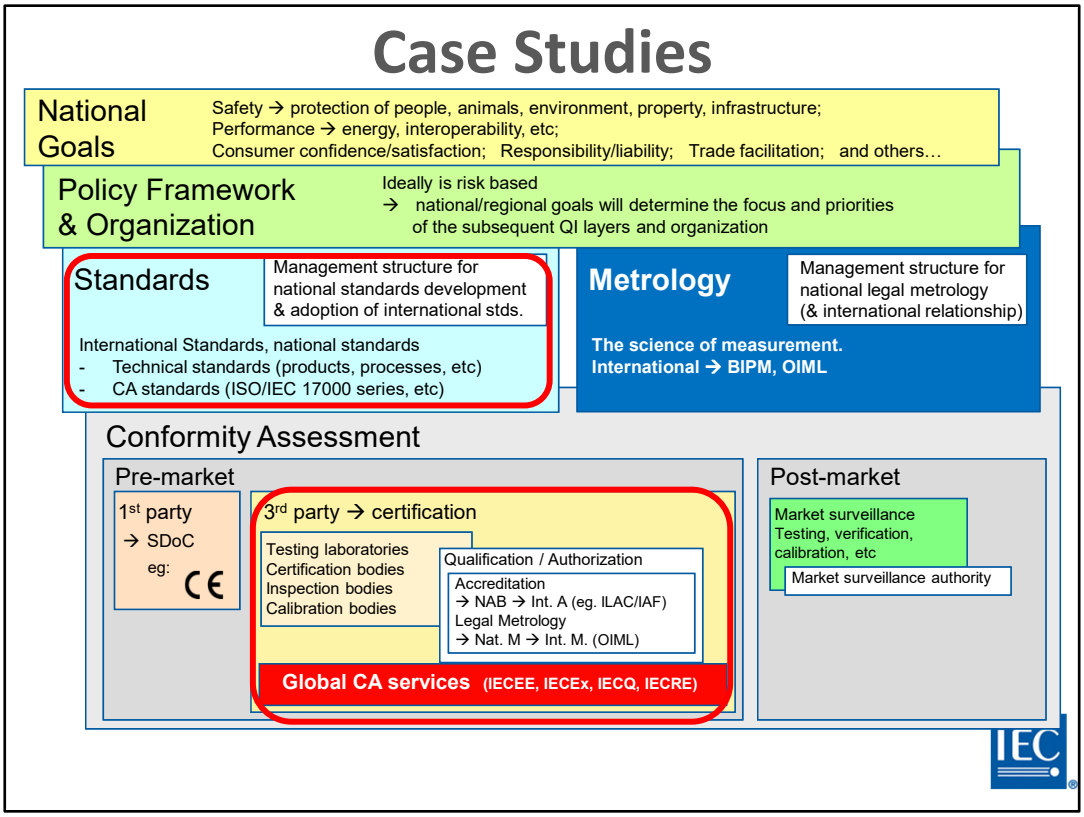
In the examples given by the case study countries, the access code to the IECEE certificates, is not provided to the national Customs officials. Rather, the code is used by National Certification Bodies which are hosted by National Standardization Bodies.

In most national schemes, an Act of law establishes that the National Certification Body has the responsibility to give proof that the imported or locally manufactured product complies with the national standard or the adopted international standard.

Regarding imported products, the National Certification Body checks the certificates accompanying the product and establishes its compliance with the national quality infrastructure requirements.

If necessary the National Certification Body then issues a national document to the Customs Officers to confirm that the product is conformant and can be admitted into the country.



Least developed countries have very limited resources to created a well structured national quality infrastructure.

Adopting IEC International Standards as national standards, and then recognizing IEC certificates is a very efficient and low cost way to create some of the national quality infrastructure.

Using these free services then help's achieve some of the national goals for product safety and efficiency and avoiding product dumping and sub-standard products on the local market.

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