

Joint ITU-UNIDO Forum on Sustainable Conformity Assessment for Asia-Pacific Region

**(Yangon City, Republic of Union of Myanmar
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International Standardisation – The Role of the IEC

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International Organisations

- International Electrotechnical Commission (IEC)
- International Organisation for Standardization (ISO)
- International Telecommunication Union (ITU)
- International Organization of Legal Metrology (OILM)

Regional Organisations

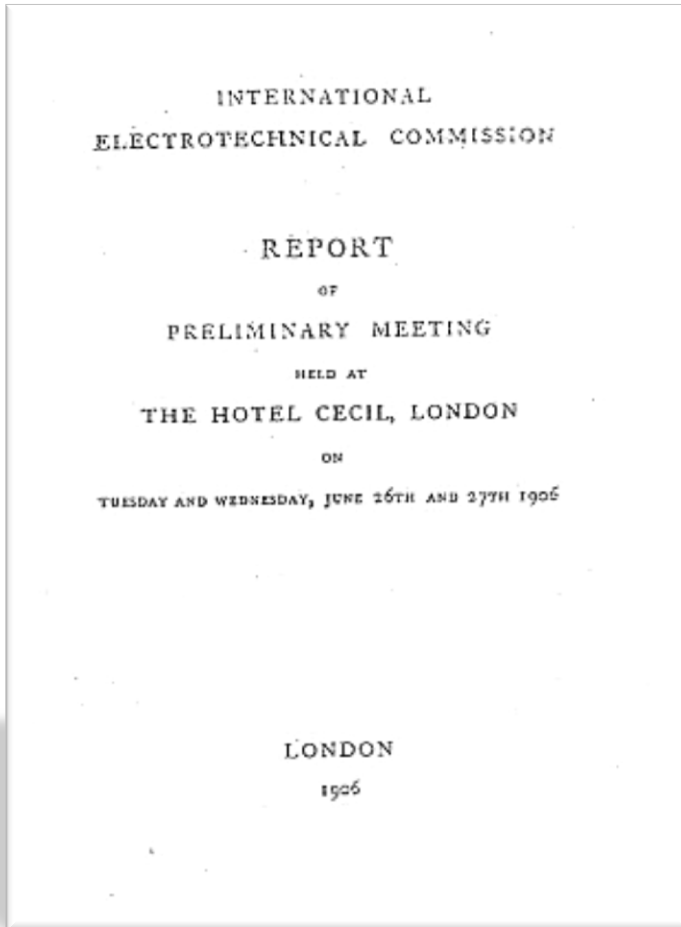
- Asia-Pacific (e.g. ASEAN, PASC)
- Americas (e.g. COPANT, MERCOSUR)
- Europe (e.g. CEN, CENELEC, ETSI)
- Africa (e.g. ARSO, SADC)

National Bodies / Committees

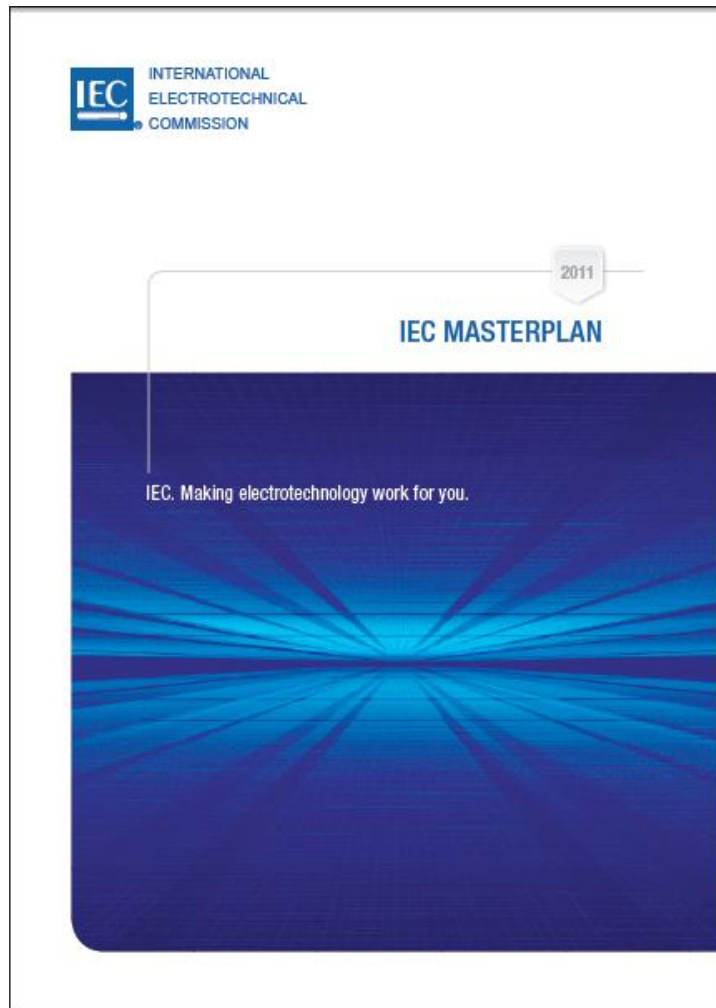
(e.g. Singapore – SPRING, SG NC, Japan – JISC, JSA)



The organization



- **The IEC is a not-for-profit, non-government organization founded in 1906**
- **One member per country**
- **Worldwide use of IEC International Standards and Conformity Assessment Systems as the key to international trade**

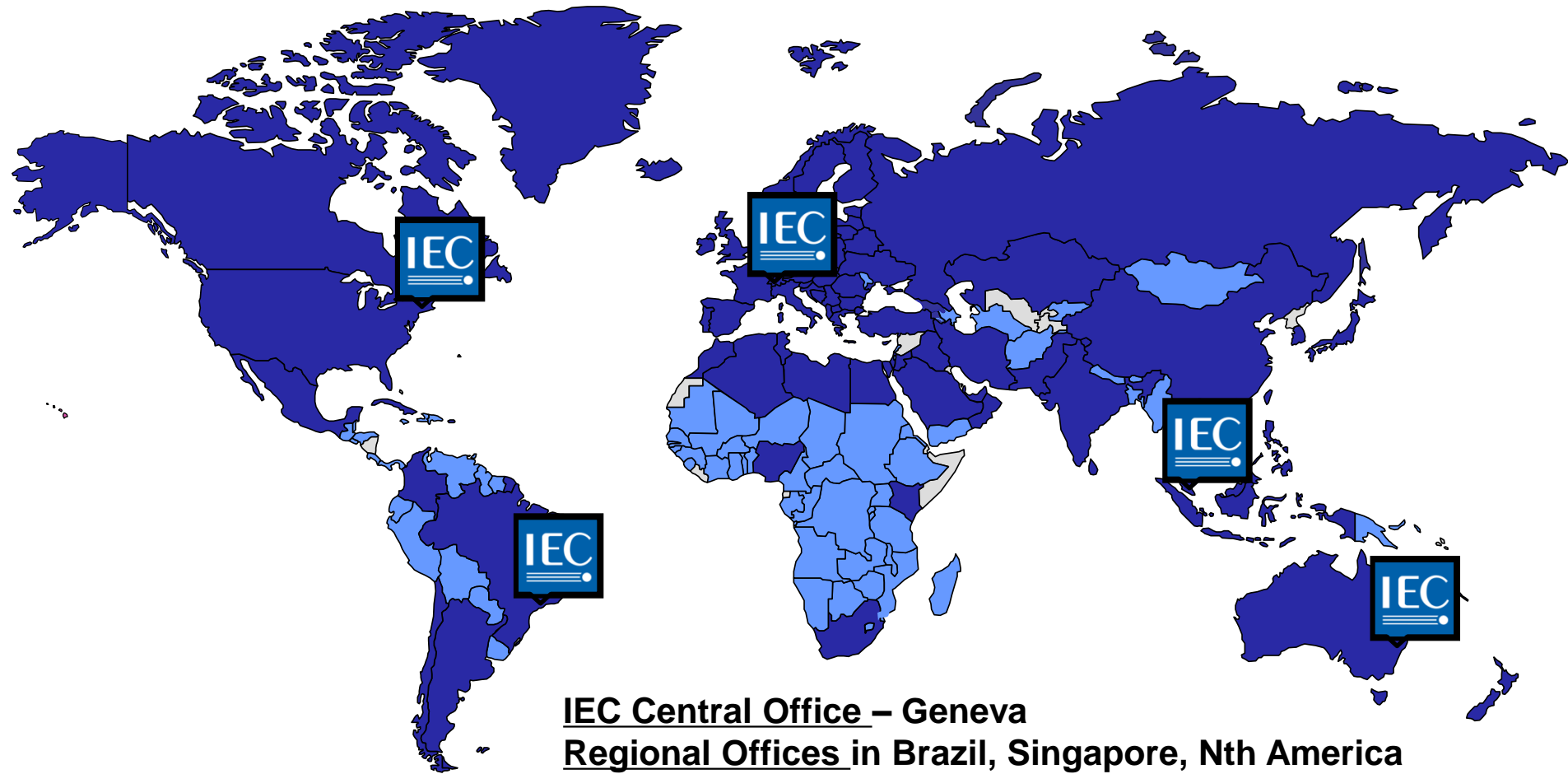


As defined in the ***IEC Masterplan***, the TWO PILLARS of IEC are:

1. **Standardisation**
2. **Conformity Assessment**
of
electrotechnologies



The IEC family of 165 countries



IEC Central Office – Geneva

Regional Offices in Brazil, Singapore, Nth America and Australia

82 Members

83 Affiliates

Offices in 5 Countries



Global reach and participation

- More than 10,000 experts in 174 Technical Committees with over 1,000 Working Groups
- More than 6,000 International Standards in catalogue
- More than 500,000 IEC Conformity Assessment Systems certificates issued





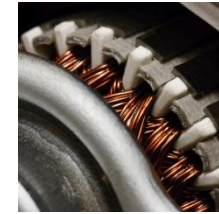
The scope of work



All electrical and electronic components, devices and systems

From power generation, transmission and distribution incl. all renewables, off-grid/rural electrification to Smart Grids and cities

Overall: safety, electromagnetic interference, environment & waste management

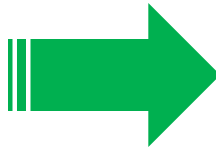


..... millions of devices
and systems



Some key stakeholders ...





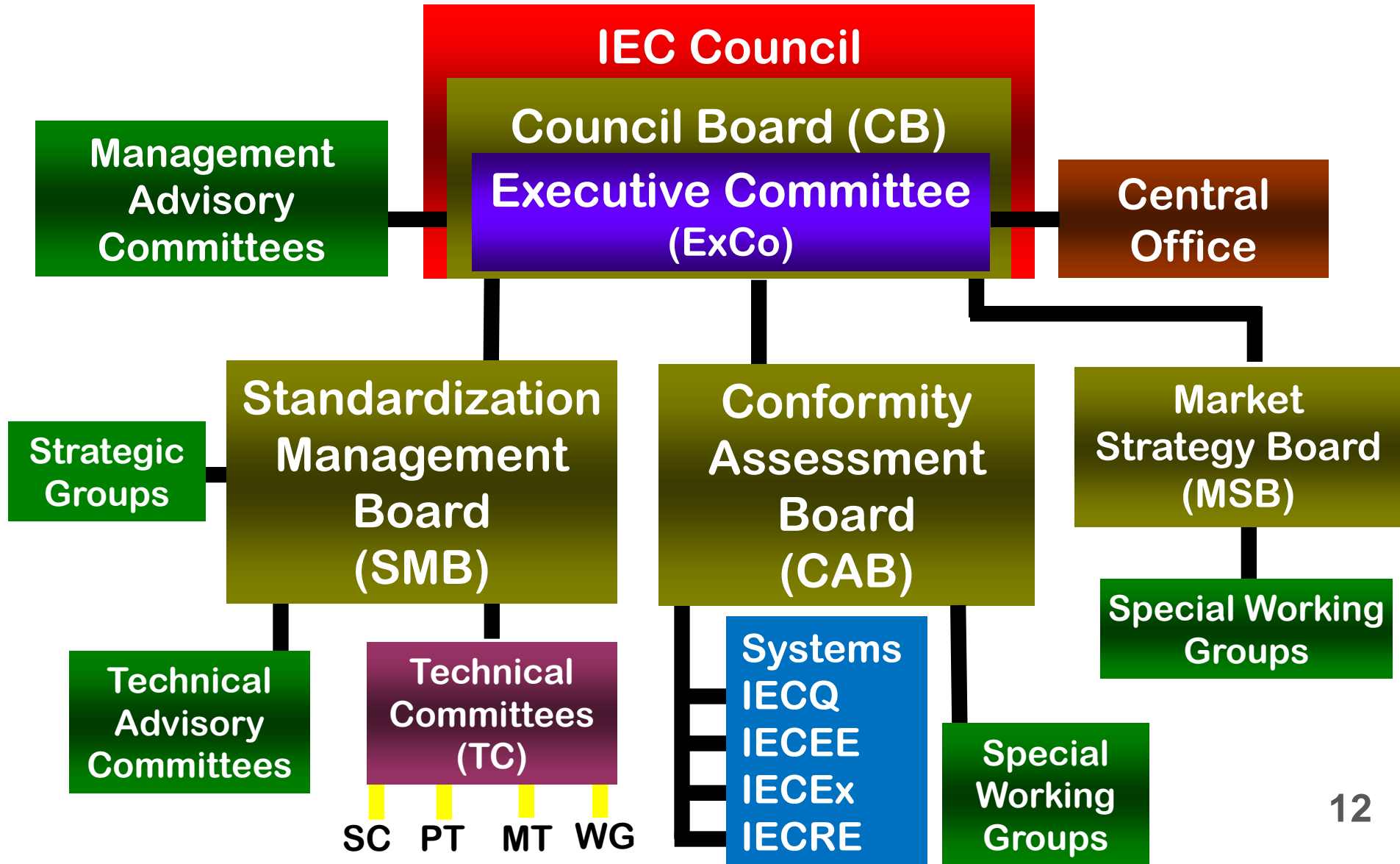
- **Mission and Objectives**
- **IEC Structure**
- **Principles**
- **Strategies**
- **Processes**
- **Publications**
- **Participants and roles**



Mission and Objectives

- **Meet the requirements of the global market efficiently**
- **Ensure primacy and maximum world-wide use of IEC Standards and CA Systems**
- **Assess and improve the quality of products and services covered by IEC Standard**
- **Establish the conditions for the interoperability of complex systems**
- **Increase the efficiency of industrial processes**
- **Contribute to the improvement of human health and safety**
- **Contribute to the protection of the environment**

Structure of the IEC



- **Openness**



- **Transparency**



- **Participation**





Openness

- Solid processes & published rules guarantee openness
- IEC National Committees are **inclusive** and coordinate and represent all stakeholders from private and public sectors
- All IEC members are free to decide on their level of participation
- State-of-the art free IT tools for remote participation in standards development and conformity assessment work



- **Total visibility:** all IEC Members have immediate access to all drafts, working documents and standards
- Work programme / proposals for new standards are **freely accessible** on IEC website
- **Clear processes** for standards development and comment by all stakeholders
- **Standards development process** is identical to ISO
- Automatic **notification** for all new publications

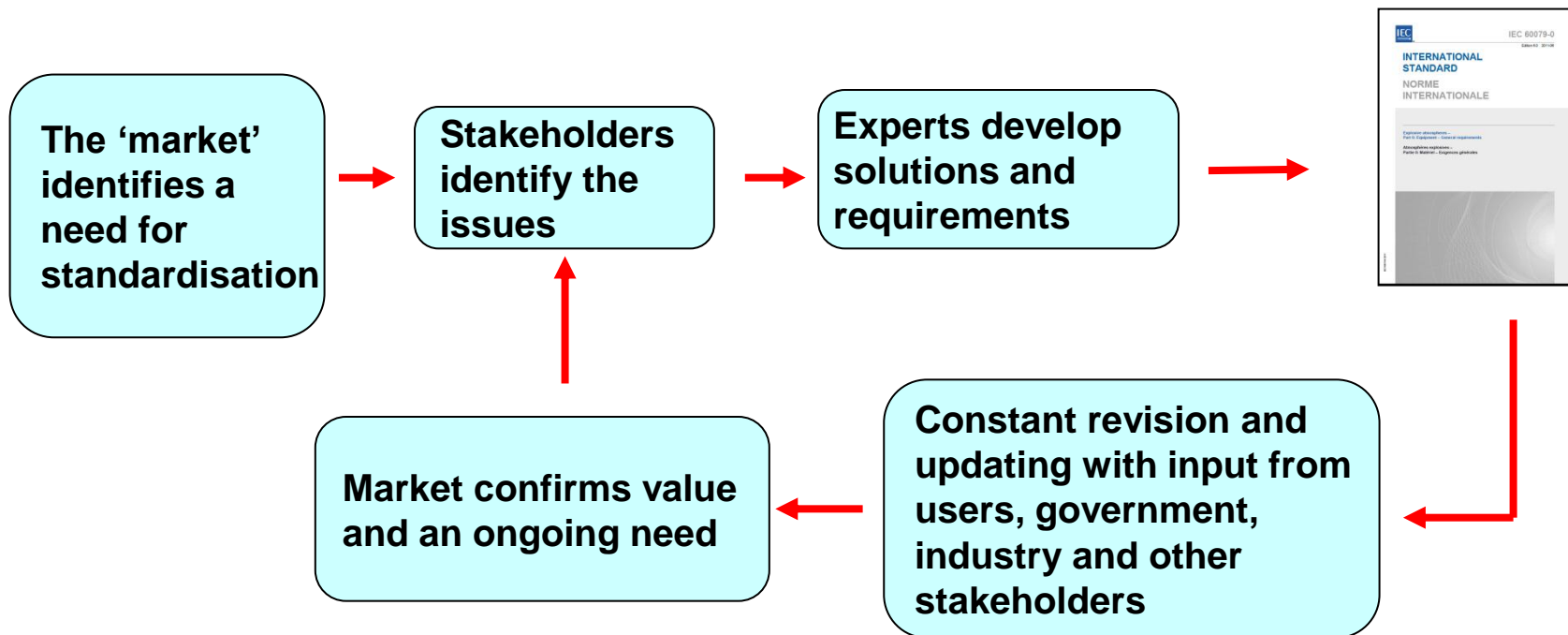


For organisations and experts...

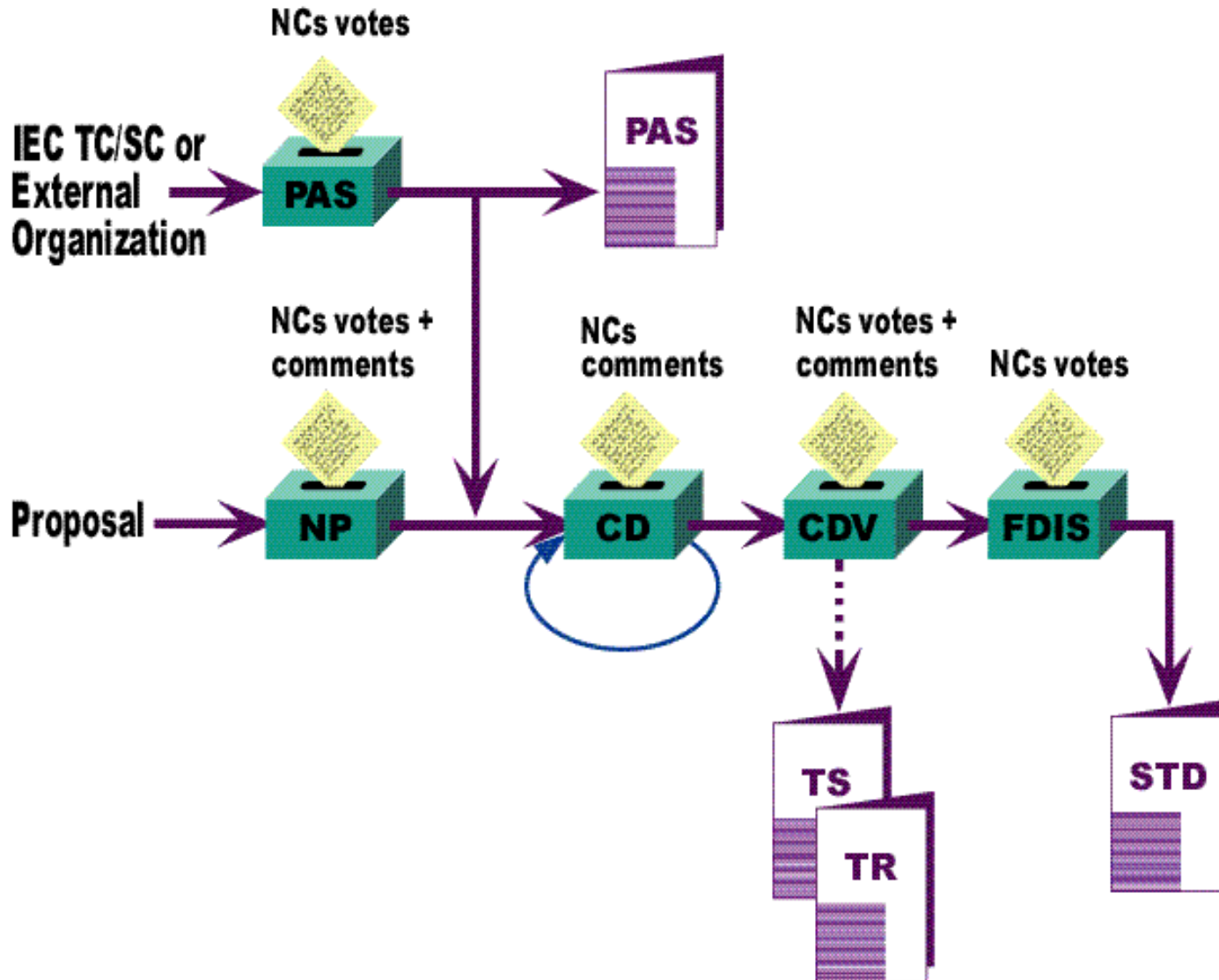
- Influence the development and content of IEC International Standards
- Early warning of developing markets and trends
- Access to the latest technology
- High quality networking



IEC captures, implements and maintains the knowledge of world wide experts to share world's best practise through Standards



IEC Standards Development Process





What is a 'standard' ?

- "... a document established by consensus and approved by a recognised body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context" (ISO/IEC Guide 2)
- An **International Standard** is a standard adopted by an international standardising / standards organisation and made available to the public it can be submitted to public enquiry in any country.
- Adoption of IEC Standards by any country, whether a member of the IECE or not, is voluntary.
- IEC Standards form part of the core of the WTO Agreement on Technical Barriers to Trade (TBT)



IEC Standards ...

- **are written by experts from small, medium and large enterprises**
- **help get new products to market in the fastest time to ensure maximum penetration of global markets**
- **establish a solid framework and foundation for the market acceptance of new technology products**
- **assist acceptance of products on world markets**
- **enable cost and risk reduction in design and manufacturing**
- **provide access to latest “best practices” (i.e. technology)**
- **enable improvements in safety, performance, efficiency and quality**

- **To achieve its mission, the IEC works in three ways:**
 - **Through its National Committee members,**
 - **Through cooperative agreements, and**
 - **Directly**
- **Fundamentally, it encourages national use of IEC International Standards and IEC Conformity Assessment Schemes**



NCs: What are they?

- Member bodies of the IEC are the **National Committees (NCs)** and are limited to one per country
- NCs represent in IEC each nation's electrotechnical interests:
 - Manufacturers, utilities, suppliers, distributors, vendors
 - Governmental agencies (all levels)
 - Academia
 - Consumers, users
 - Professional societies, trade associations
 - Standards developers



NCs: What do they do?

- **Support the use of IEC conformity assessment schemes and standards within each nation and region, including preparing translations**
- **Coordinate each nation's consensus viewpoint and present in IEC via participation in the meetings:**
 - **International consensus standards development,**
 - **Conformity assessment scheme operations, and**
 - **IEC governance**
- **Members may vote on all policy issues and technical matters: one country, one vote**

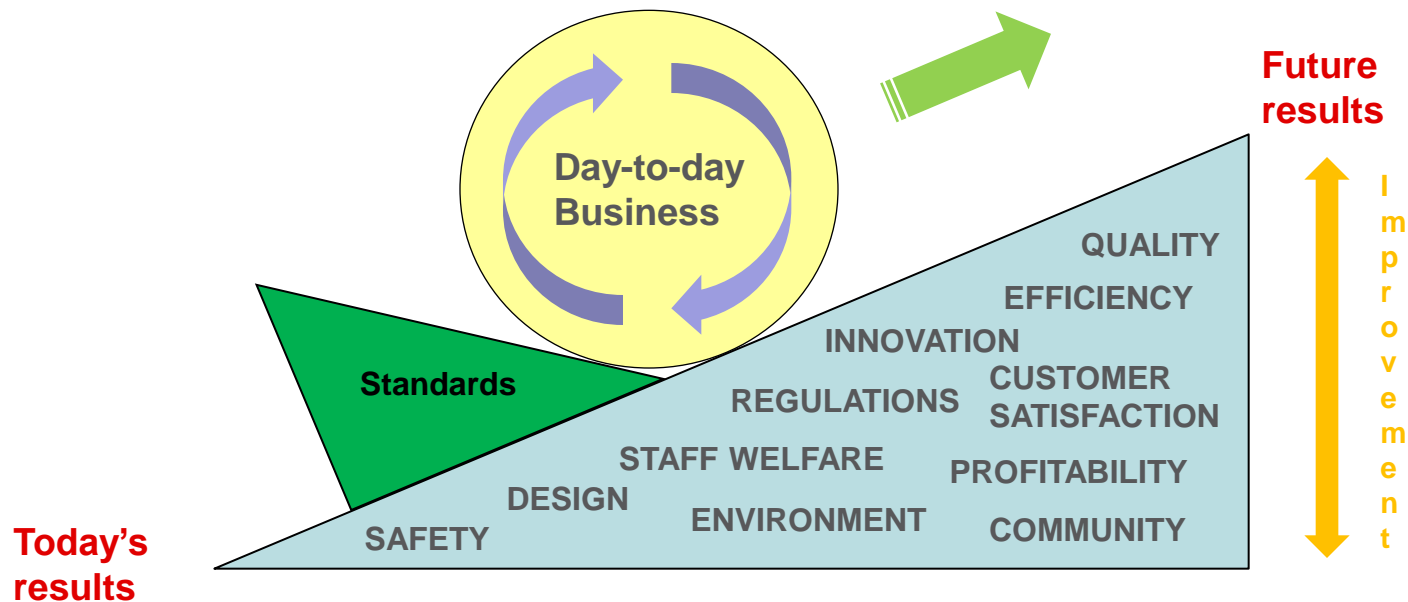


TCs: how they work

- **Technical committees and subcommittees are made up of**
 - Secretariat
 - Chair
 - Members, which are NCs
- **All NCs are free to take part in the work of any TC, either**
 - Actively (P-members), carrying the obligation to vote on drafts and to attend meetings; or
 - As observers (O-members), with a right to vote on FDIS

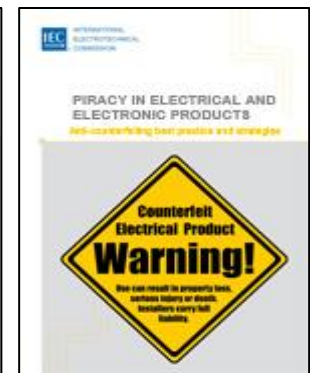
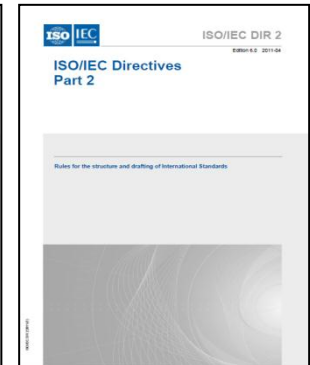
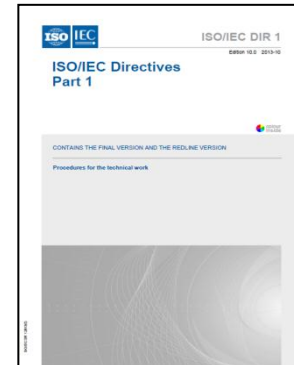
Standardisation and IEC Standards

- IEC Standards are the collected knowledge and experience of experts in a accessible written form.
- They can form the basis for accelerated improvement by reducing the risks, costs and delays of repeating history
- They can be used to measure results
- They can provide the ‘wedge’ to support true **SUSTAINABILITY**



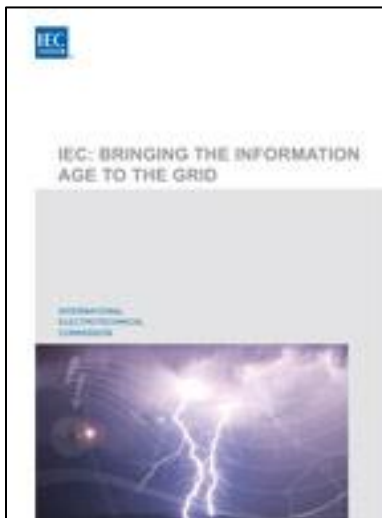
Clear and inclusive standardisation policies and strategies provide the **foundation** for:

- proactive standards development **targeted** at meeting market, government and industry needs
- that when, **supported** by regulatory recognition / reference
- and **enforced** with CA systems and practices
- **deliver** benefits to ALL stakeholders





IEC and ICT ... *outputs to date*



ITU-T input
via IEC's
ACTEL





Benefits for governments can include:

- **Provide domestic industry with a legislative framework that is relevant to contemporary conditions**
- **Potential source for WTO compliance contributing towards fulfillment of TBT Agreement**
- **Standards provide detailed technical interpretation of the law AND can provide a foundation for regulations based on achievable outcomes**
- **Facilitates participation in the global economy**

Benefits for governments can include:

- **Ensure that the population receives a wide range of essential goods and services of acceptable safety, quality and performance**
- **Assured neutrality (no supplier countries favoured)**
- **Confidence in imported products:**
 - **No dumping of poor-quality goods**
 - **No “hiding” behind false origins (built in one place but trans-shipped through another)**



and the Economic Benefits can include:

- **International Standards have a positive influence on innovation,**
- **. . . enable efficient dissemination of new technical knowledge via standards is decisive factor and precondition for economic growth,**
- **. . . have a positive influence on exports,**
- **. . . promote intra-industry trade and lead to international competitiveness,**
- **. . . encourage technology transfer from technology leaders to developing nations,**

and these benefits can equate to about 1% of GNP *

* * Study carried out by Dresden University and Fraunhofer Institute for Systems and Innovation Research, Karlsruhe. Summary published by DIN



Assistance for developing economies

IEC Affiliate Country Programme

Objectives to:

- Encourage greater awareness and use of IEC International Standards in developing countries
- Help those countries understand and participate in the work of the IEC
- Facilitate the adoption of IEC International Standards as national standards

Participation:

The Affiliate Country Programme reaches out to developing countries, giving them the opportunity to get involved with the IEC without becoming members. Countries participating in the programme benefit from free IEC International Standards for national adoption. IEC Central Office helps them become more aware of the benefits of using International Standards and more familiar with the work of the IEC.



IEC Affiliate Country Programme



- English, French, Russian and Spanish versions available at <http://www.iec.ch/affiliates/programme/>
- Enquiries to the Affiliate Programme Secretariat at affiliates@iec.ch



Case 1: India

"The Government of India has been adopting a policy of liberalization and deregulation...the role of standards and standardization assumes great importance in contributing to and maintaining the quality of power plant equipment and the best engineering practices...The IEC has done pioneering work in setting up the standards for power plant equipment, engineering practices and design margins."

***Chairman of the Central Electricity Authority,
Indian Ministry of Power***



Case 2: Thailand

"As a developing country which has to cope with various measures related to standardization frequently imposed by developed countries, and as an importing country, Thailand will need to base its national standards on international ones. It is important that Thailand joins hands with other developing countries in international fora like the WTO in requesting that international standards, like those of the IEC, are applicable to all fields."

**Secretary-General,
Thai Industrial Standards Institute**

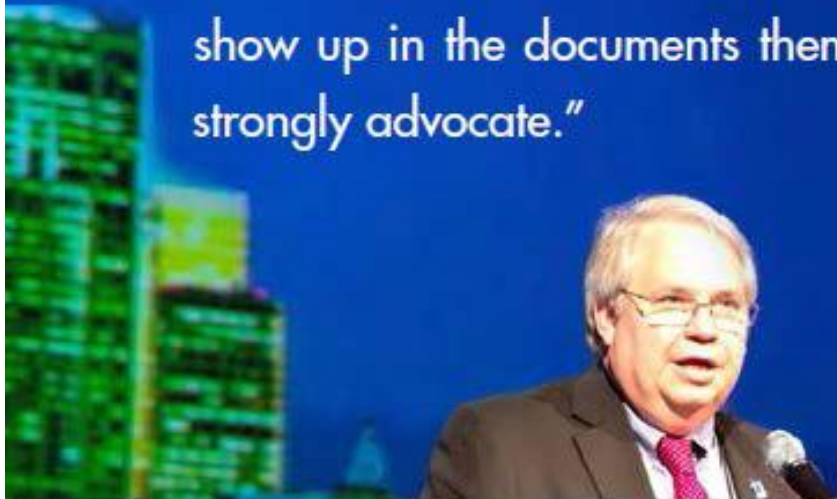


... a message from industry ...

"I can tell you by past experience, if you follow a reactive strategy you'll end up putting in 10 times the effort. You'll just be following things as they go down the river, and you won't know where you're going.

By choosing active participation you can influence domestic and international policy, gain valuable networking opportunities, and learn from international colleagues about what kinds of things are coming, long before they show up in the documents themselves. That's the strategy that I would strongly advocate."

–Jim Matthews, Director of Technical Standards and Standards Policy, Corning Incorporated





and a message to industry ...

**Don't let your competition
write the rules for you – NOT
domestically, regionally nor
internationally**





Questions?

Thank you for your attention.

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION