



International Electrotechnical Commission

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IEC International
Liaison for Developing
Countries

IRENA Workshop
5 June 2015
Bonn

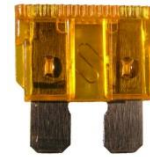


INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

Scope of the IEC

Millions of devices and systems that use or produce electricity and contain electronics.

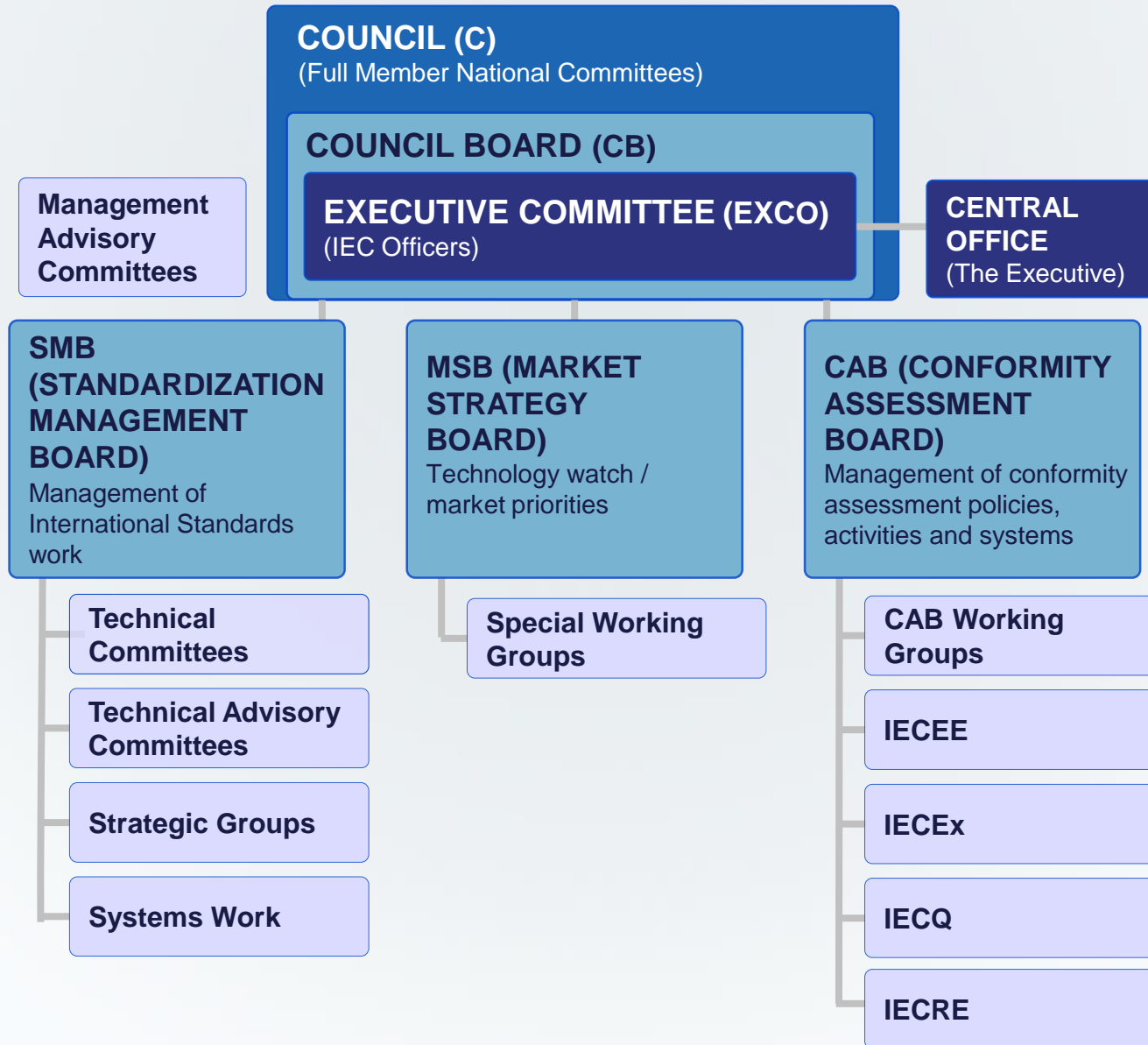
Interoperability, safety, performance, EMC, waste management and environment





global reach:
166 countries
98% of world population
96% of energy generation

IEC Structure



IEC involvement in the field of renewable energies (1/2)

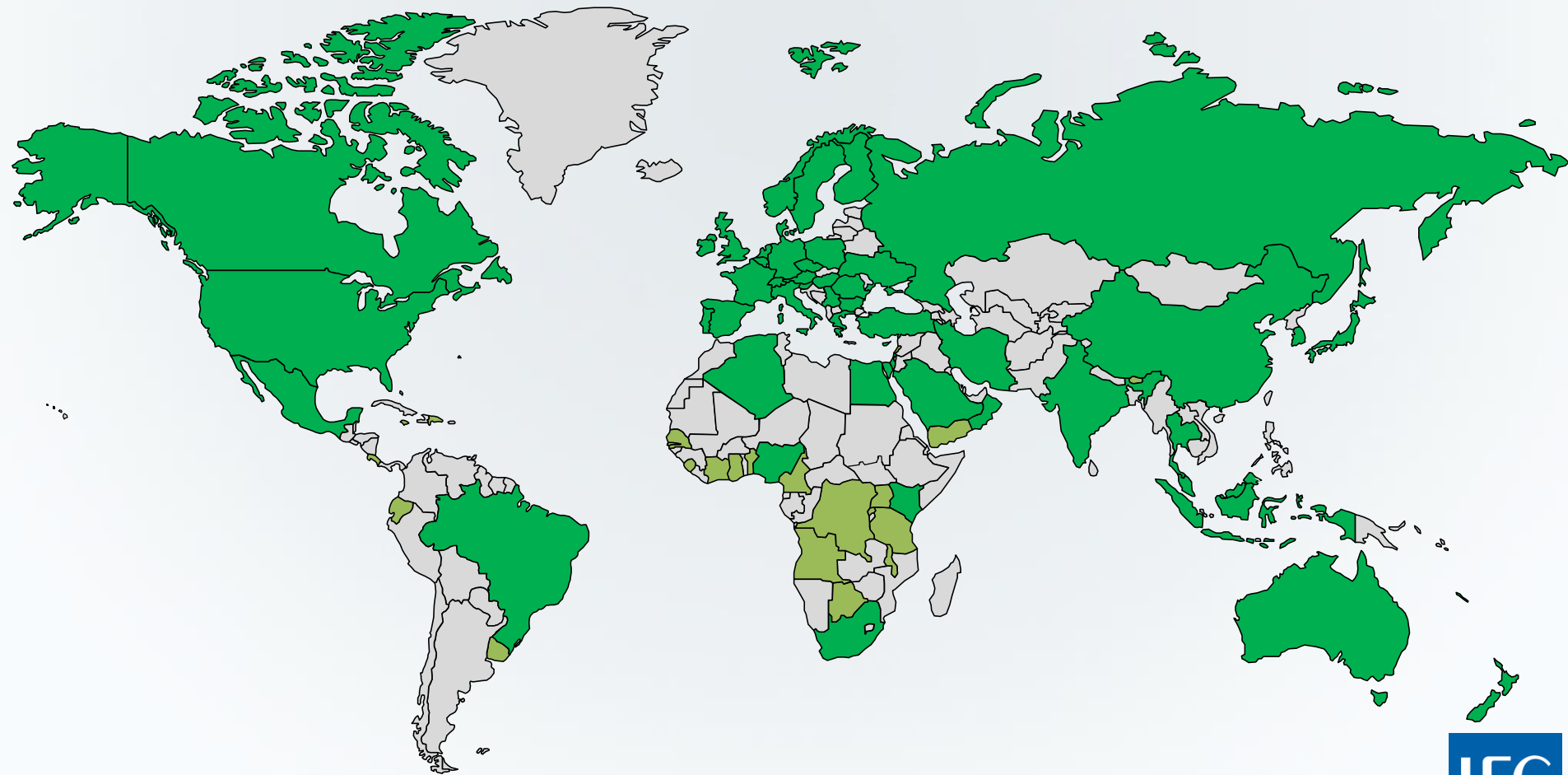
- Renewable energies, covered by:
 - TC 4, Hydraulic turbines
 - TC 82, Solar photovoltaic energy systems (IEC 61215, IEC 62257 - SE4ALL)
 - TC 88, Wind turbines (IEC 61400)
 - TC 105, Fuel cell technologies (IEC 62282)
 - TC 114, Marine energy - Wave, tidal and other water current converters (IEC 62600)
 - TC 117, Solar thermal electric plants
- Integration of renewable energies into the grid, involves:
 - TC 8, Systems aspects for electrical energy supply
 - TC 57, Power systems management and associated information exchange
 - TC 120, Electrical Energy Storage (EES) Systems



IEC involvement in the field of renewable energies (2/2)

- Integration of renewable energies into the grid (cont.):
 - White paper developed by IEC Market Strategy Board:
[“Grid integration of large-capacity renewable energy sources and use of large-capacity electrical energy storage”](#)
 - New: IEC SC 8A, Grid Integration of large-capacity renewable energy (RE) generation
- Smart grid, covered by:
 - TC 57, Power systems management and associated information exchange
 - PC 118, Smart grid user interface
 - TC 8, Systems aspects for electrical energy supply
 - TC 13, Electrical energy measurement and control
- Renewable energies zone on the IEC website:
www.iec.ch/renewables

Participation in IEC Technical Committees on Renewable Energy



How IEC IS benefit the RE sector

- **Facilitate interoperability (products and systems)**
- **Achieve safety**
- **Improve efficiency**
- **Improve investors' confidence**
- **IEC IS (written by international experts) are used as basis for technical regulations**

Benefits for policymakers

- Provide detailed technical basis for laws and regulations
- Already exists and avoids “reinventing the wheel” – cost savings
- Standards are updated as technologies evolve
- Reflects state of the art, international consensus
- Facilitate trade (WTO TBT)
- Offer the complete range of tools for all forms of conformity assessment



IECRE



IECRE Structure

IEC CONFORMITY ASSESSMENT BOARD, CAB

Oversees IEC Conformity Assessment policy and Systems, eg IECEE, IECEX, IECQ, IECRE

IECRE Management Committee, REMC

Overall management of the IECRE System

National Members (Countries)

Officers + Executive, Scheme Chairs, IEC Gen. Sec

Expert Working Groups (WGs) – as needed

IECRE Secretariat

Technical Support

Administration

WE OMC

Wind Energy
Operational
Management Committee

National Members

TC 88 + SC Liaison

Committees + WGs

ME OMC

Marine Energy
Operational Management
Committee

National Members

TC 114 + SC Liaison

Committees + WGs

PV OMC

PV Solar Operational
Management Committee

National Members

TC 82 + SC Liaison

Committees + WGs



IEC and IRENA

- **Collaboration begins 2012 at IRENA Workshop in Bonn**
 - Active participation of IEC (Presentation and Round Table)
 - IEC reviewed IRENA publication on International Standardisation in the Field of Renewable Energies
- **IRENA participates actively in IEC General Meetings**
 - IRENA presentation – New Delhi and Tokyo
 - IRENA workshop back to back with GM Tokyo
- **IEC participates in IRENA Assemblies**
 - GREIN session in 2014
 - Round table on IRENA standards information platform 2015

Future collaboration

- IEC General Meeting Minsk 2015
- Supporting Standardization for RE in China. June 2015, China.
- IECRE Management Committee Tokyo 2015
- RE TCs (IRENA expert participation)
- Closer collaboration
 - Peer reviewing on publications
 - Joint publications
 - Joint events: on the ground assistance to member countries



IEC Global Visions

Thank you for your attention!

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