collaborating widely
The world of standards

International:
IEC, ISO, ITU, OIML

Regional:
Africa (e.g. AFSEC, SADC)
Americas (e.g. COPANT, CANENA, FINCA, MERCOSUR)
Asia-Pacific (e.g. ASEAN, PASC)
Europe (e.g. CENELEC, ETSI, EASC)

National Committees:
(e.g. Austria, Brazil, China, France, Germany, Italy, Japan, Korea, Malaysia, Mexico, Russia, South Africa, UK, USA)
Scope of the IEC

• Founded in 1906
• Promote international co-operation on all questions of standardization and conformity assessment
• International Standards and Conformity Assessment Systems for all electrical and electronic components, devices and systems
IEC - global reach

82 Members

83 Affiliates

IEC CO
Geneva

ReCNA
Boston

LARC
São Paulo

APRC
Singapore

IECEx/IECQ
Sydney
Regional Centres

- **IEC-RecNA – Boston**
  Staff: 5
  TC/SCs: 40

- **IEC-APRC – Singapore**
  Staff: 7
  TC/SCs: 52

- **IECEx/IECQ – Sydney**
  Staff: 6
  CA Systems: 2

- **IEC-LARC – São Paulo**
  Staff: 2
Types of participation

- IEC is a voluntary association of National Committees that fully represent electrotechnical interests in their countries
  - Government, industry, testing laboratories, academia, consumer groups…
- Membership – one member per country
  - Full Members (60)
  - Associate Members (22)
- Affiliate Country programme
  - 83 participants ex: Armenia, Azerbaijan, Kyrgyzstan, Turkmenistan
Systems Evaluation Groups

- Who is impacted?
- Who needs to cooperate – participation of all interested parties!
- Systems architecture
- Road-maps
- Systems boundaries
- Gaps/missing processes
Specialized Systems Committees

- Reference architectures
- Use cases
- Functionality
- Interfaces
- Systems interactions
- Coordinate work across Technical Committees
System experts:
- Development of special tools
- Software applications
Smart Grids, Smart Cities

- Participation in all major projects globally
- World Smart Grid Forum: Berlin 24-25 September 2013
  - Stimulate decisions: move projects to large scale implementation
Smart Cities

• High dependency on electricity and electronics
• IEC impacts most systems and devices in cities
• IEC Systems Evaluation Group on Smart Cities develops architecture and roadmap in cooperation with many organizations
• MSB prepares White Paper to move cities to "smartness"
Beyond devices

Looking at systems, including risk management – example IECEx

- Design of devices/systems
- Installation
- Inspection
- Maintenance/repair
- Competence of personnel
- End of life management
Mentoring Programme in a nutshell

- Partnerships between
  - IEC NCs and IEC NCs
  - IEC NCs and Affiliate NECs
- Voluntary programme lasting up to two years
- Progress report after one year and another at the end of the period
- Two levels of mentoring: management and technical
Affiliate Programme in a nutshell

- Free Programme to help developing countries comply with WTO TBT Agreement
  - Active participation, but not a kind of membership
- Affiliates use IEC International Standards on national level
  - Access to 200 IEC IS for national adoption
  - 400 IEC IS for Affiliates Plus
- Assistance to establish National Electrotechnical Committees
- Selection of 10 technical fields to access and comment on working documents (up to and including CDV)
  - Experts with login
Recent developments for Affiliates

- Affiliate Conformity Assessment Status in 2013
- Mentoring Programme in 2013: partnership
  - IEC NC / Austria and Affiliate NEC/Rwanda
  - Applications from: Afghanistan/ Côte d’Ivoire/ DRC/ Ethiopia
- Affiliate Forum in GM New Delhi
  - 26 delegates from 13 developing countries
  - On mentoring
  - Case study from Ethiopian NEC
- Industrializing country workshop in GM New Delhi
  - 50 participants from 25 countries
  - Solar photovoltaic energy standards for developing countries
• UN-Foundation Practitioner network regular participation

• Participation in workshops (Cambodia, India)

• IEC General Secretary participation at Clean Energy Ministerial – New Delhi

• Official commitment: facilitated access to PV standards for DCs
Work groups

TC 117: Solar thermal electric plants

PC 118: Smart Grid user interface

TC 119: Printed electronics

TC 120: Electrical energy storage

TC 122: UHV AC transmission
providing guidance
electricity + IEC = global trade and economic development