IoT @ IEC

Gilles Thonet

Head of ICT Standards

ISO/IEC/ITU IoT Workshop

2016-05-13

Berlin, Germany

International Electrotechnical Commission

IEC in figures

World's leading provider of International Standards and Conformity Assessment Systems in Electrotechnology

83 Members

84 Affiliates

212 Committees

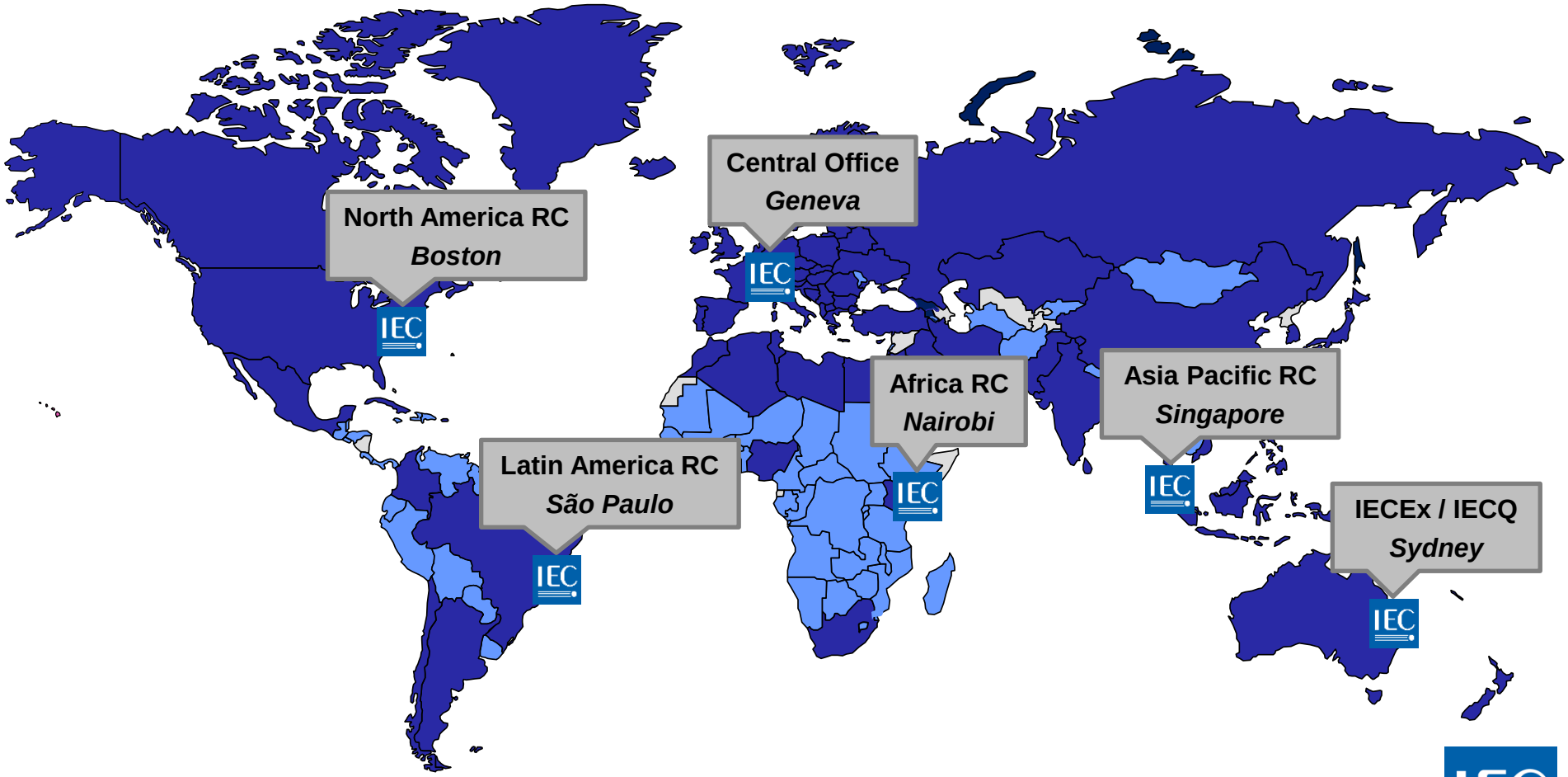
> 20 000 Experts

> 9 000 International Standards

4 Conformity Assessment Systems

> 1M Certificates issued

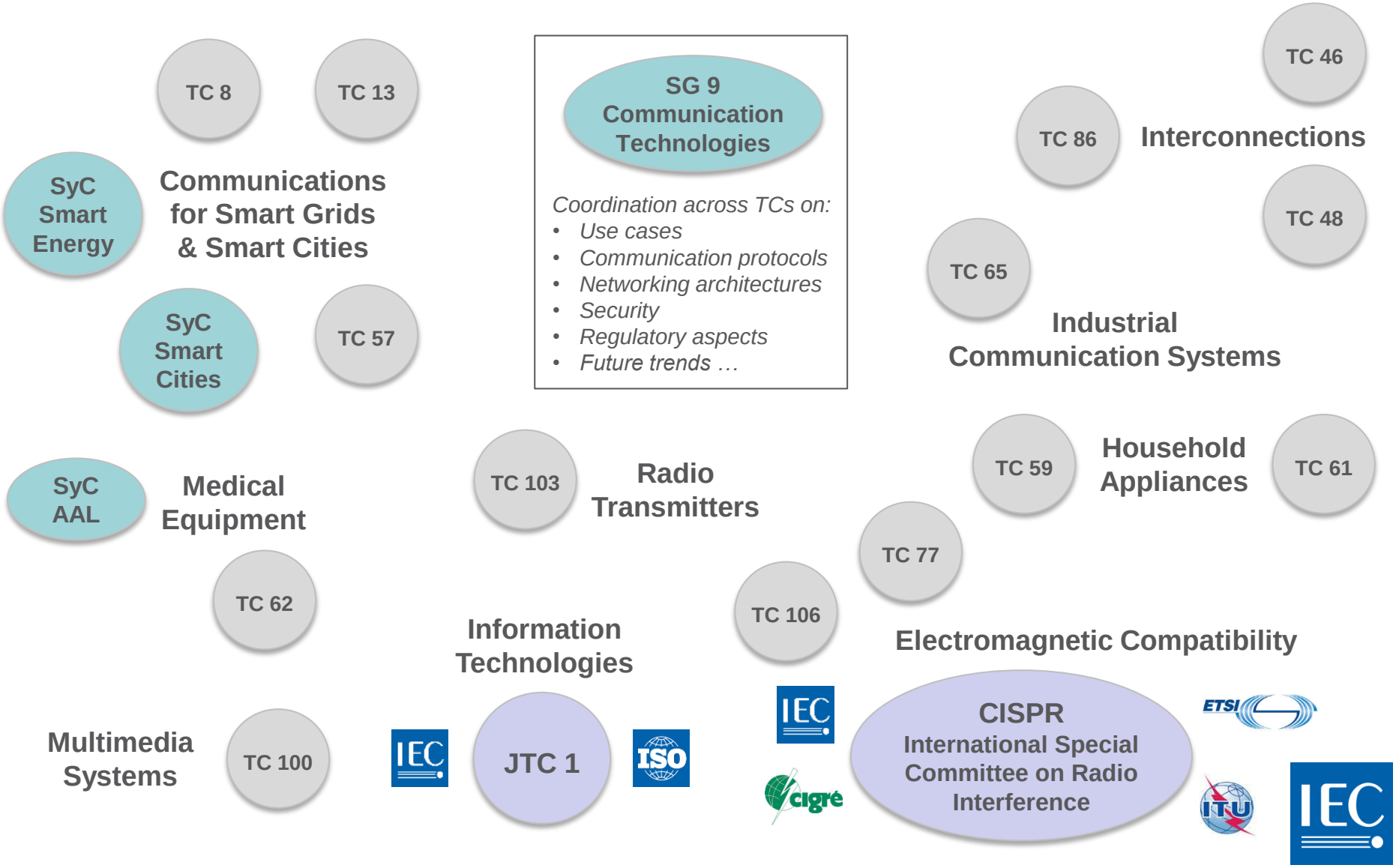
Close to its family



Since a long time ...

- **Digitization of processes**
  - Industrial automation (e.g. Wireless HART, Foundation Fieldbus, Real-Time Ethernet)
  - Power systems (e.g. IEC 61850)
- **Interoperability of devices from different vendors**
- **Support wide range of communication, monitoring, control, safety and security techniques**

IEC IoT landscape



Strategic Groups

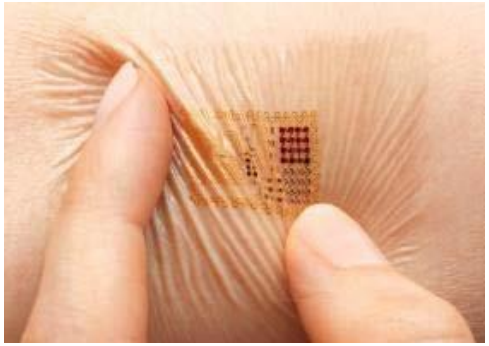
SG 8
INDUSTRY 4.0

- Develop strategy and roadmap for Smart Manufacturing
- Develop common industrial terminology database
- Recommend specific radio spectrum for critical applications

SG 9
COMMUNICATION TECHNOLOGIES

- Identify technologies and trends that will impact IEC
- Gather common requirements and identify gaps within IEC
- Develop landscape of existing SDOs and consortia

SG 10
WEARABLE SMART DEVICES

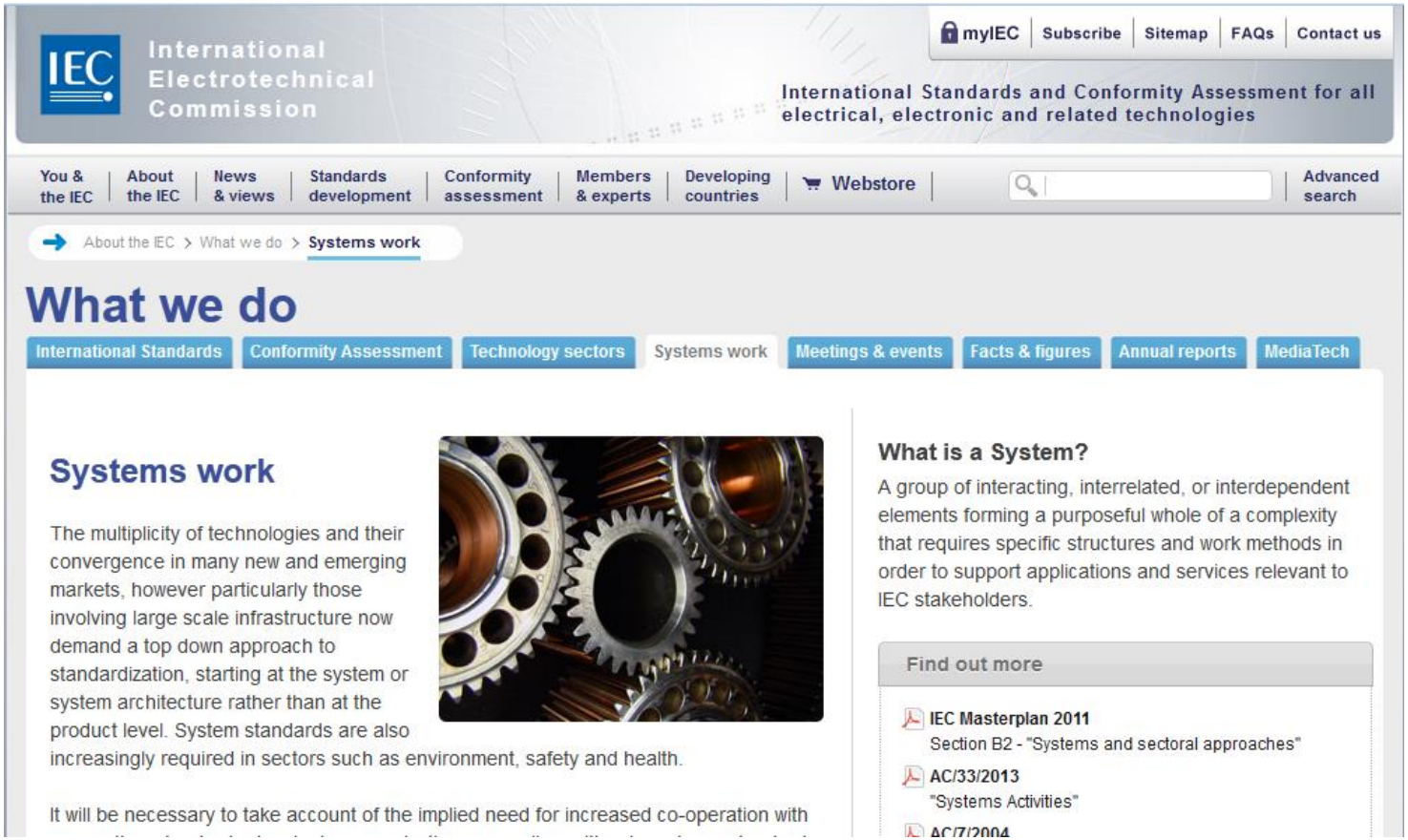


- Develop strategy and roadmap for Wearable Smart Devices
- Develop unified terminology and definitions
- Inventorize existing activities within and outside IEC

From components to systems

- **3 Systems Committees (SyCs)**
  - Active Assisted Living
  - Smart Energy
  - Electrotechnical Aspects of Smart Cities
- **SyCs publish International Standards, Use Cases, Reference Architectures …**
- **Addressing the increasing complexity of technologies and the need for interoperability**
- **Complementary to existing Technical Committees – Engaging, not directing them**
- **Breaking silos between technical areas**

More on systems work



www.iec.ch/about/activities/systemswork.htm

LVDC enables inclusive and sustainable IoT

- 1.5 billion people worldwide without electricity
- IoT needs power and energy efficiency to make it sustainable

- Unprecedented integration of everything makes International Standards crucially important
- IEC established Systems Evaluation Group (SEG) to investigate standardization work on LVDC

www.iec.ch/seg4

IoT: Wireless Sensor Networks

Factory of the Future

Brought to you by IEC ISO ITU

In partnership with:

SAVE THE DATE!

Moving cities to greater smartness:

Addressing real city pain points, now!

Join us at the World Smart City Forum
13 July 2016: 9:30 – 17:30
Marina Bay Sands Conference Centre
Singapore

Co-located with the World Cities Summit:
www.worldcitiessummit.com.sg