

# IoT @ IEC



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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***

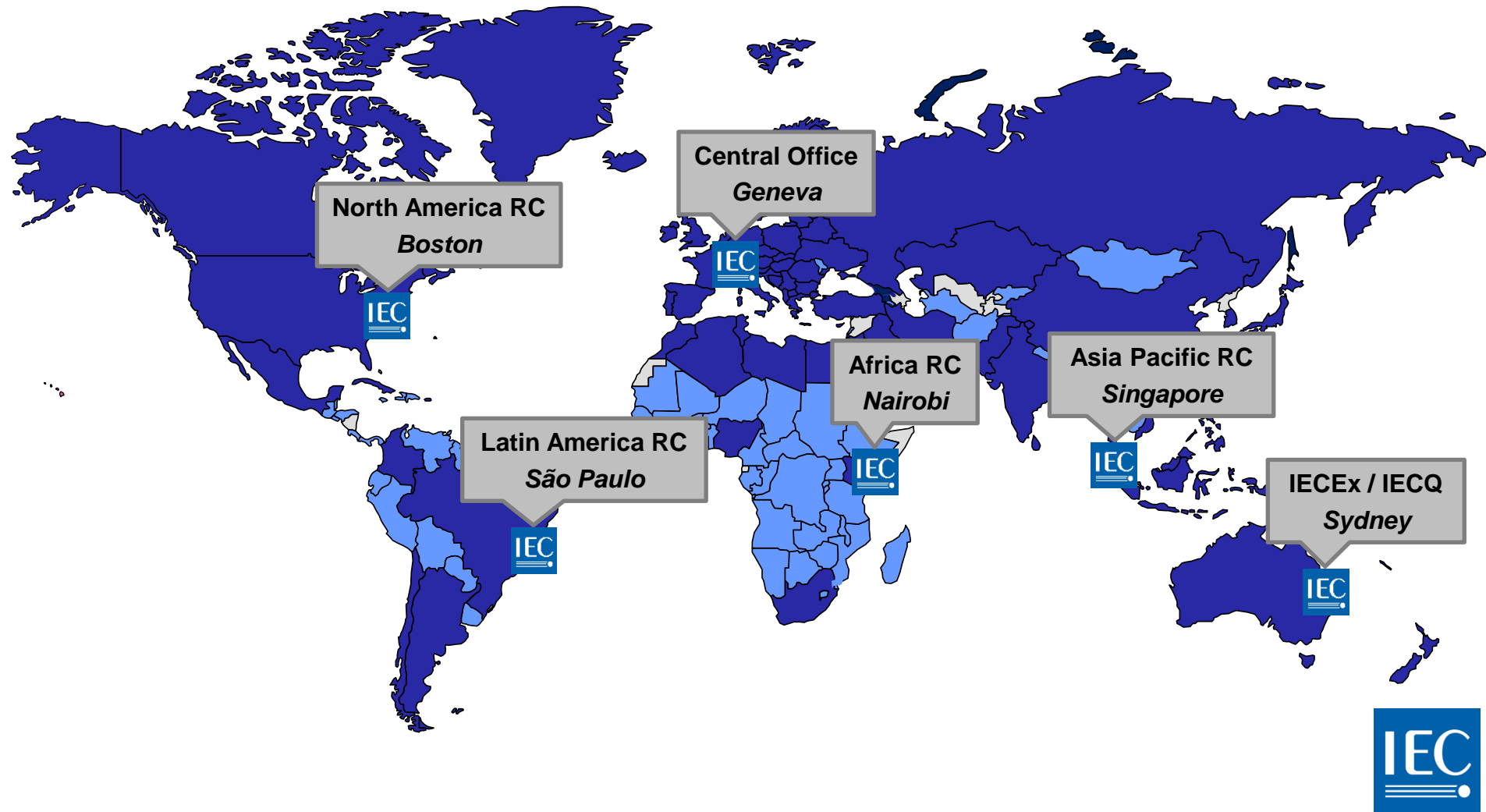
***> 9 000 International Standards***

***4 Conformity Assessment Systems***

***> 1M Certificates issued***



# Close to its family

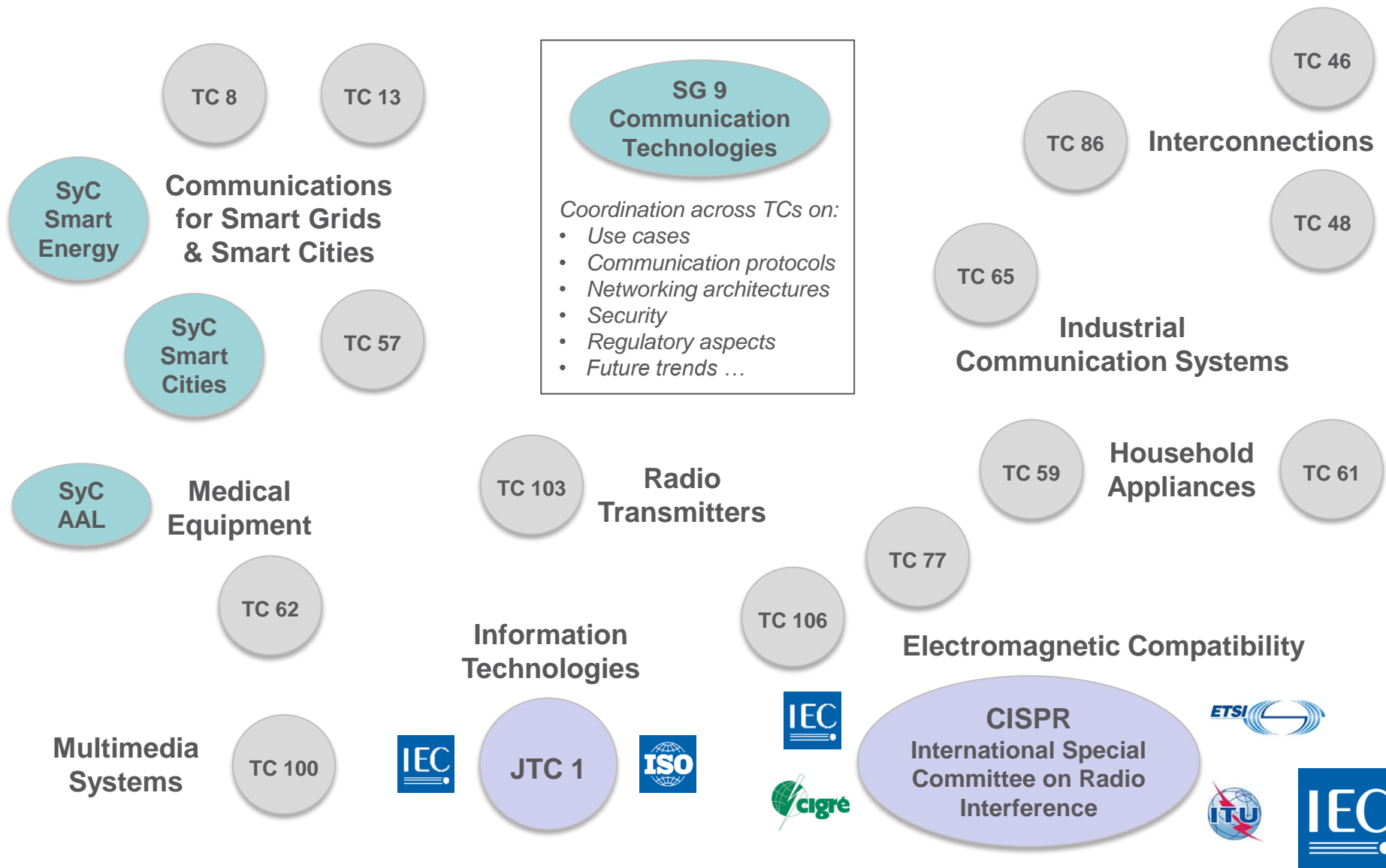


# Since a long time ...

- **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



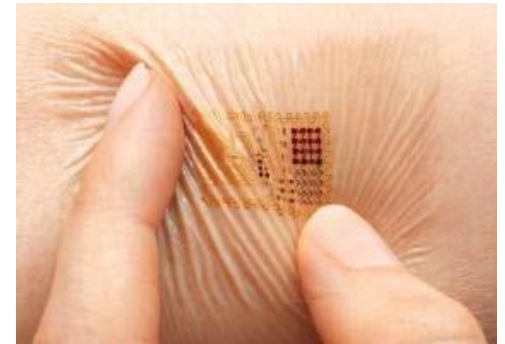
- Develop strategy and roadmap for Smart Manufacturing
- Develop common industrial terminology database
- Recommend specific radio spectrum for critical applications

## 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

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→ About the IEC > What we do > **Systems work**

## What we do

International Standards | Conformity Assessment | Technology sectors | **Systems work** | Meetings & events | Facts & figures | Annual reports | MediaTech

### Systems work

The multiplicity of technologies and their convergence in many new and emerging markets, however particularly those involving large scale infrastructure now demand a top down approach to standardization, starting at the system or system architecture rather than at the product level. System standards are also increasingly required in sectors such as environment, safety and health.




It will be necessary to take account of the implied need for increased co-operation with

### What is a System?

A group of interacting, interrelated, or interdependent elements forming a purposeful whole of a complexity that requires specific structures and work methods in order to support applications and services relevant to IEC stakeholders.

Find out more

-  **IEC Masterplan 2011**  
Section B2 - "Systems and sectoral approaches"
-  **AC/33/2013**  
"Systems Activities"
-  **ΔC/17/2004**

[www.iec.ch/about/activities/systemswork.htm](http://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](http://www.iec.ch/seg4)

# IoT: Wireless Sensor Networks



# Factory of the Future





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# SAVE THE DATE!

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