



IEC Smart Cities SEG

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ANSI Smart
Sustainable Cities
21 November 2013



INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

IEC by the numbers

165 Countries globally

60 Full Members

22 Associate Members

83 Affiliates countries (Free of charge)

Three Conformity Assessment Systems

+ New system for renewables IECRE (wind, solar, marine energy...)



A few fast facts

- **174 Technical Groups**
 - **95 Committees, 79 Subcommittees**
 - **448 Working Groups**
 - **538 Maintenance Teams**
 - **264 Project Teams**
- **13 766 active experts**
- **6 894 current publications**
- **1 646 active work projects**
- **SMB management of technical work**
 - **Reviewed 77 TC reports / SBPs**
 - **Took 81 decisions**

Systems standardization in the IEC

Why systems?

Complexity – user demand – only path forward

What is a system?

A system is 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

- **Ad-Hoc Group Met Over Last Year**
- **Span 2 or more TCs**
- **Collaboration beyond IEC**
- **Strategic Groups led our thinking**

Systems approach - concepts

Systems Evaluation Group (SEG)

a larger, open group used in the first stage of systems development whose role is to engage the community of experts, identify the relevant stakeholders and define the general architecture and boundaries of the problem to be addressed

SEG reports to SMB after a limited timeframe, whether a Systems Committee is needed

Systems Evaluation Group (SEG)

Terms of reference

- Evaluate work covering a broad area and a wide scale of stakeholders in and outside IEC
- Open participation (Fora & Consortia)
- Identifies interested stakeholders
- Identifies need for standardization
- Usually new technology, but could be existing technology
- Does not develop standards, but can publish road-maps, architectures, etc.
- Short-term structure – report in up to 2 years

Systems Committee (SyC)

a specialized Committee working at the systems instead of the product level to define reference architectures, use cases and appropriate standards and guidance on the interfaces, functionality and interaction of a system within the scope of their charter

An SyC can publish IEC International Standards, as well as other deliverables. It functions generally in the same manner as a conventional TC, but with special procedures for the groups involved as liaisons to the SyC.

Systems Committees (SyC)

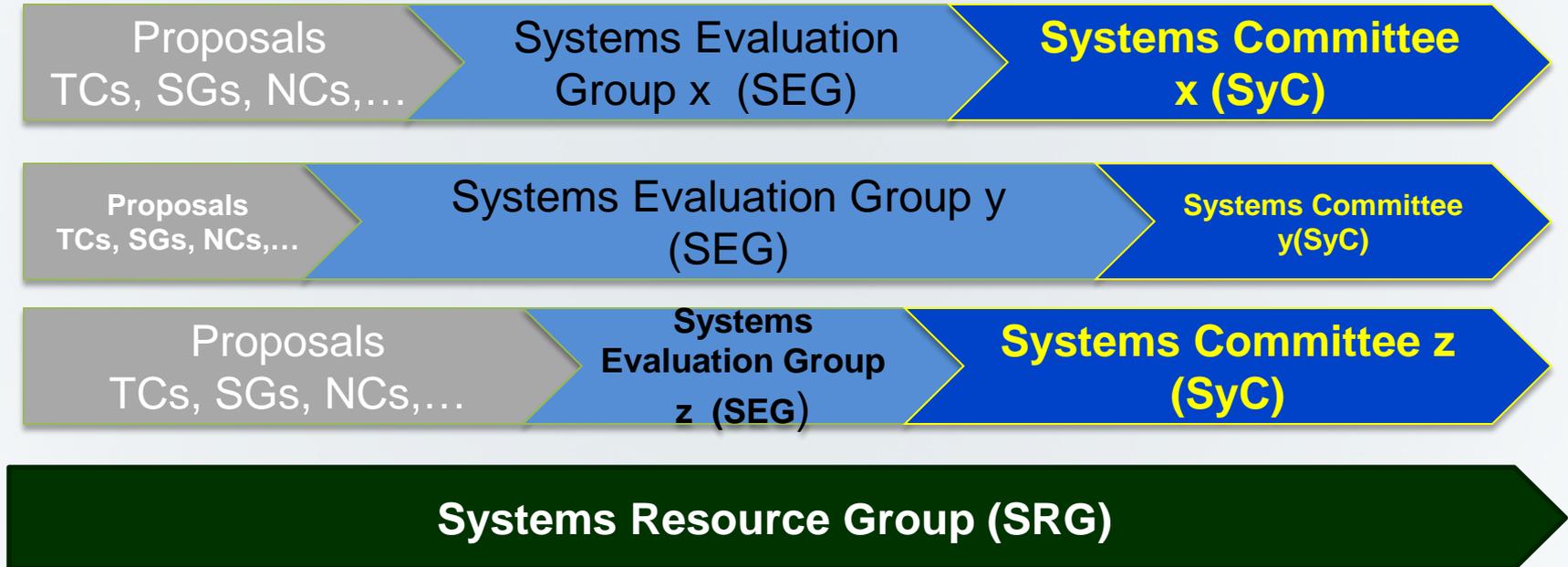
Terms of reference

- Operates at a level consistent with systems
- High-level interfaces and functional requirements
- Spans multiple TC/SCs and external organisations
- Can produce IEC deliverables
- System orientated secretariat provided by Central Office
- No authority to dictate to anyone

Systems Activities

NEW!

SEG Smart Grid
SEG Smart Cities



SEG

Broad, open memb.

Finite time

No IS

Define boundaries

SyC

TC-like membership

NC-appointed

Can make IS

TC collaboration

SRG

Support all systems

Tools, resources

Sharing best

practices

IEC Systems Evaluation Groups

- **Finite life - ~2 years**
- **May be stepping stone to SyC**

- **SEG Smart Grid**
 - **Transformed from IEC Strategic Group 3**
 - **Work focused on Smart Energy domain**
 - **Meeting – November 19 / 20 Seoul Korea**
 - **Chair – Richard Schomberg, EDF, France**

IEC SEG – Smart Cities (draft)

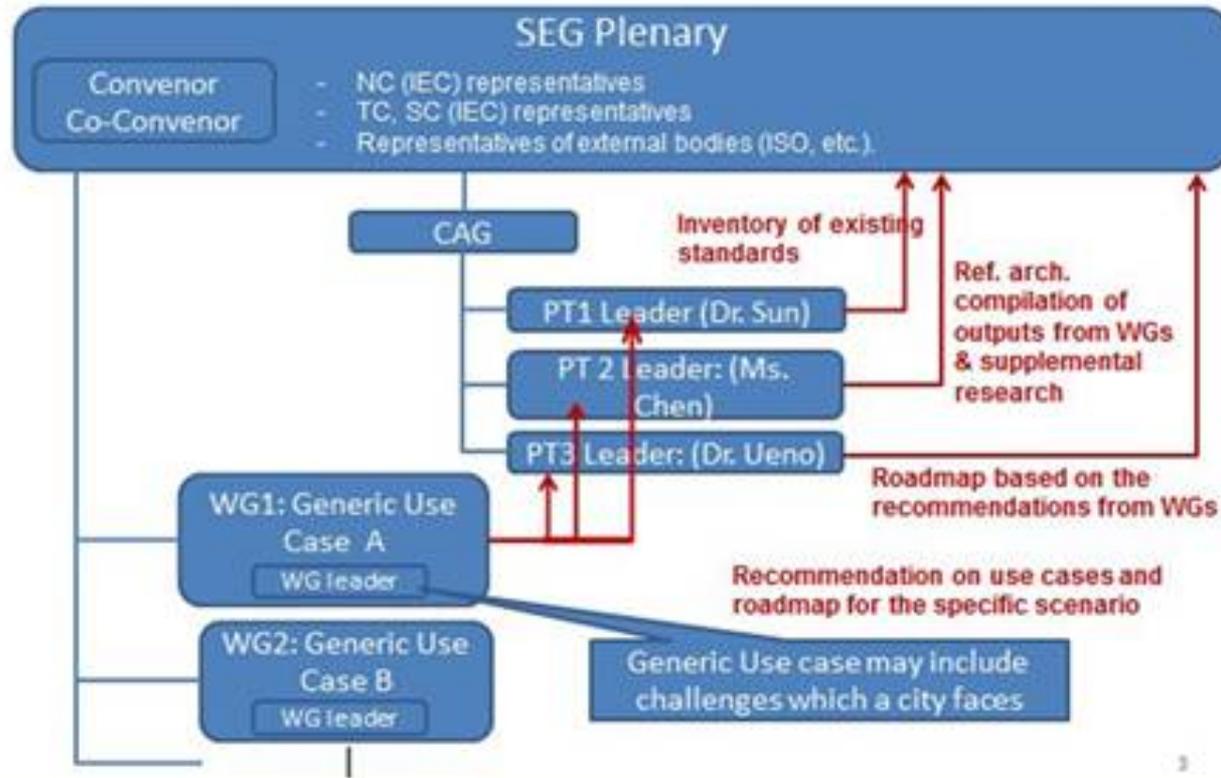
Chair: Japan, Vice-Chair: China & Germany

Draft Scope

- **Evaluate relevant work**
- **Propose to establish an SyC with regard to Smart Cities including**
 - **The SyC's scope**
 - **Generic use cases**
 - **A possible reference architecture model**
 - **A standardization roadmap (including gap identification)**
 - **A survey and collection of existing and to-be-defined evaluation**
 - **Metrics and terms & definitions**
 - **A mapping of closely related activities in cooperation with IEC internal technical bodies, ISO and other organizations, fora and consortia.**

Proposed work structure

Structure of SEG on Smart cities



Next steps – December 2013

- IEC SEG Smart Cities
- Collaborative & open effort
- Organizational meeting December 2013 – Berlin, Germany
- 2014 Work plans to be defined

Join our effort as we embark on a new path.....



Thank you!

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