

# Smart Grid Co-ordination Group

## Scope, objectives, workplan

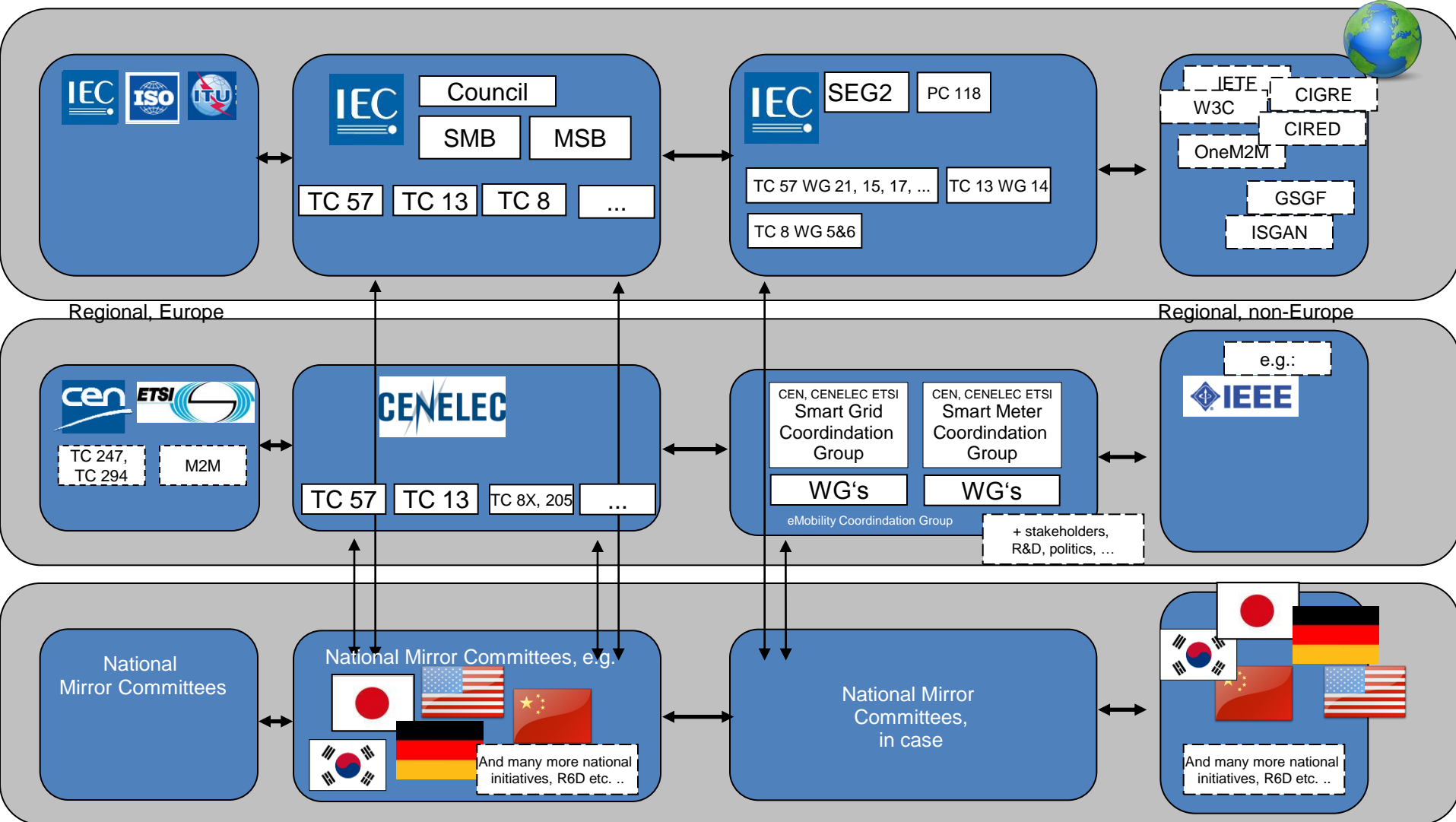


# There are a lot of Smart Grid standardization activities worldwide

## Technical standardization committees

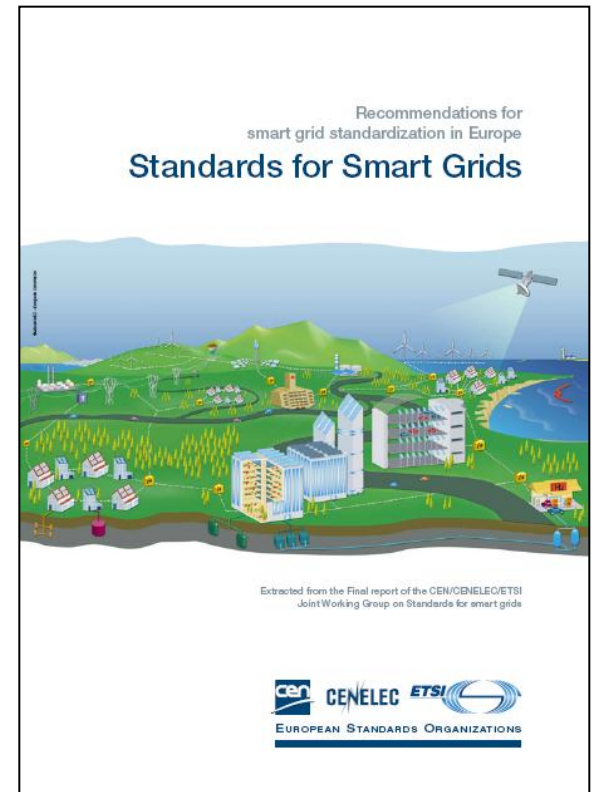
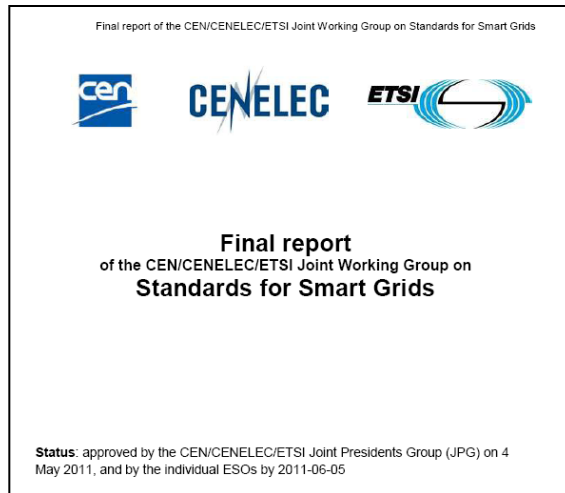
## Smart Grid committees

## Stakeholder / Consortia worldwide



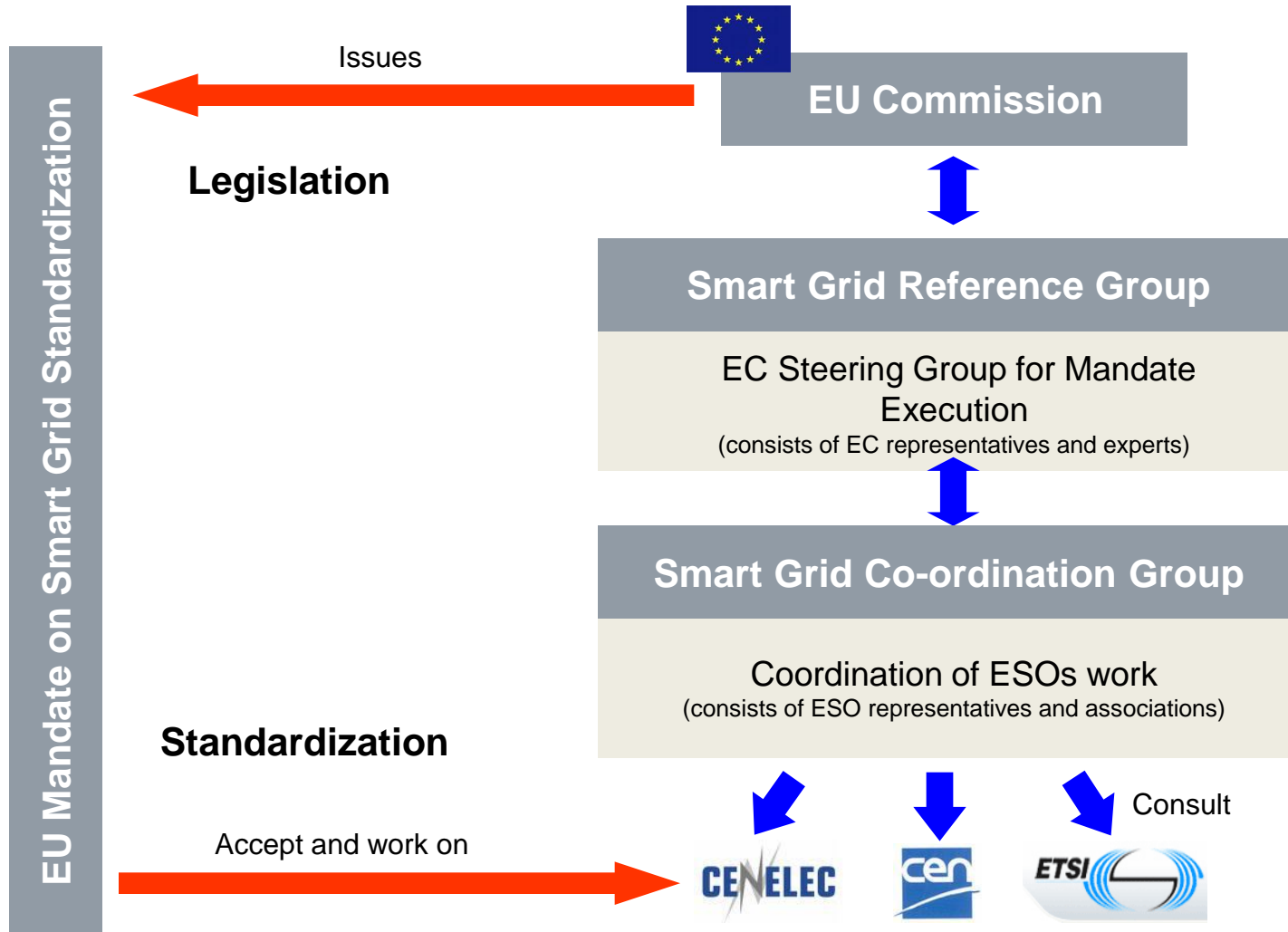
Not at all complete

# Status Report



- Final report approved on 04.05. Joint Presidents Group of ESOs
- Available from websites of CEN/CLC/ETSI
  - [www.cen.eu/cen/Sectors/Sectors/UtilitiesAndEnergy/SmartGrids/Pages/default.aspx](http://www.cen.eu/cen/Sectors/Sectors/UtilitiesAndEnergy/SmartGrids/Pages/default.aspx)
  - [www.cenelec.eu/aboutcenelec/whatwedo/technologysectors/smartgrids.html](http://www.cenelec.eu/aboutcenelec/whatwedo/technologysectors/smartgrids.html)
  - [www.etsi.org/website/Technologies/SmartGrids.aspx](http://www.etsi.org/website/Technologies/SmartGrids.aspx)
- Short summary version for print available
  - Executive summary and recommendations only

# Current Setup of standardization



# Europe – Standardization Mandate M/490 2011-2012

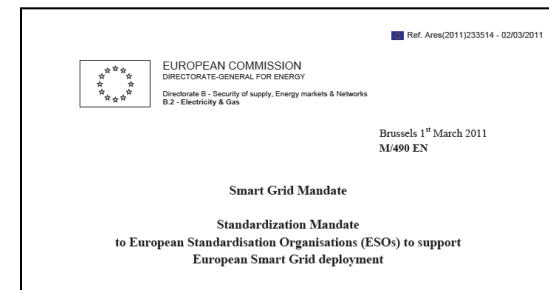
**Reference  
Architecture**

**Sustainable  
Processes**

especially Use-  
Case-  
Management, -  
Collection,  
Analysis, -  
Harmonization

**First set of  
standards  
until  
end of 2012**

One key issue:  
IT-Security,  
Data protection  
and Data  
Models





**Smart Grid Mandate**  
**Standardization Mandate**  
**to European Standardisation Organisations (ESOs) to support**  
**European Smart Grid deployment**

# Mandate M490

## Scope and Objective

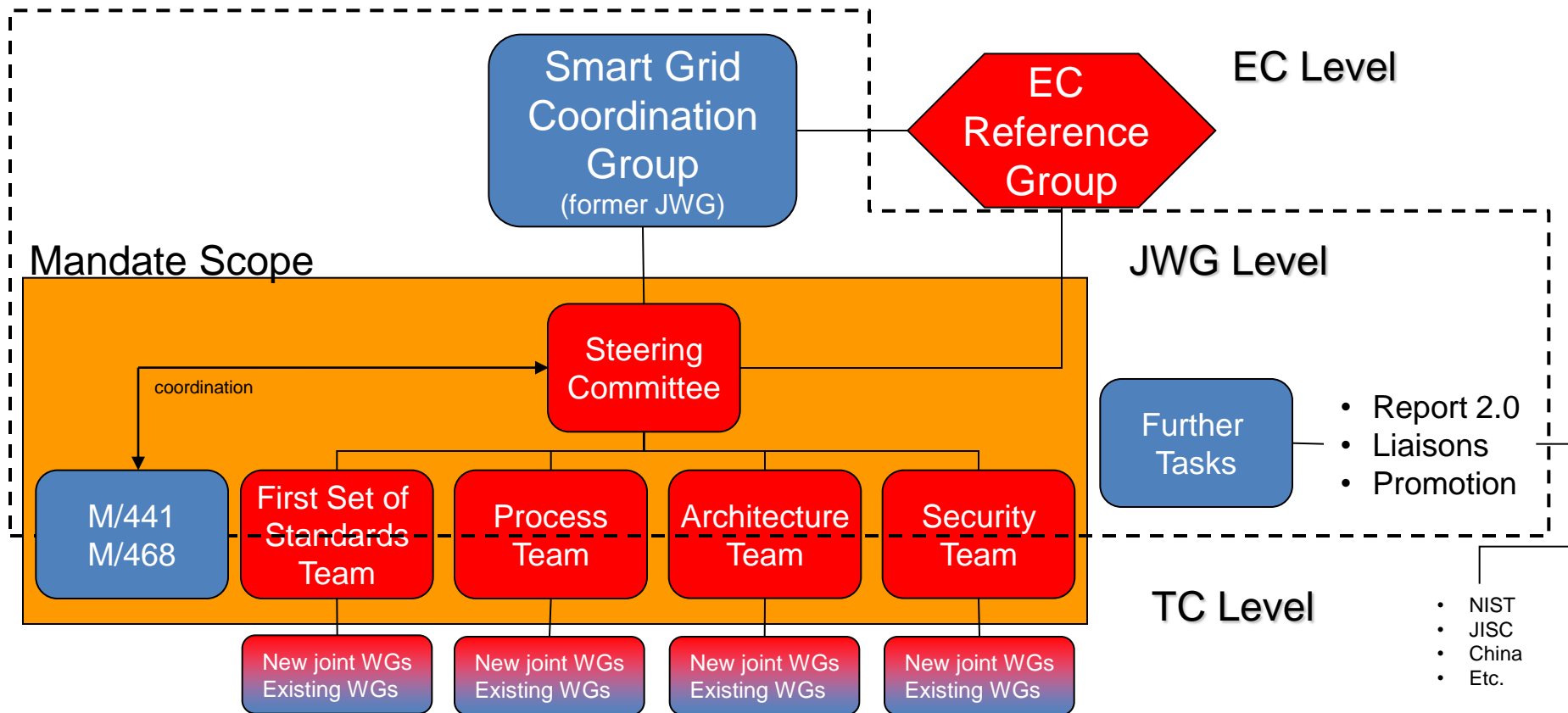
The objective of this mandate is to **develop or update a set of consistent standards** within a common European framework that integrating a variety of digital computing and communication technologies and electrical architectures, and associated processes and services, that will achieve interoperability and **will enable or facilitate the implementation in Europe of the different high level Smart Grid services and functionalities** as defined by the Smart Grid Task Force that will be flexible enough to accommodate future developments.

**Building, Industry, Appliances and Home automation are out of the scope** of this mandate; however, their **interfaces with the Smart Grid** and related services have to be treated under this mandate.

## Interconnection to other mandated work

This mandated work will be co-ordinated with the outcomes of the existing mandates M/441 and M/468 to ensure a coherent standardisation framework (a bi-directional process).

# Organization







# SG-CG – Who are we?



Associations



DIGITALEUROPE



## SMART GRID Coordination Group (established June 2011)

Observers from US, J,

...

TC ITS

SM-CG

TC ATTM

TC ERM

TC BRAN



TC M2M

Board

TC PLT

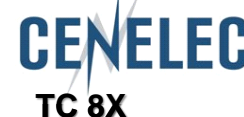
TC TISPAN

TC SCP

TC 205

TC 13

TC 57



SM-CG

TC 8X

TC 287



TC 247

ENER

ENTR

RTD

JUST

INFO



FP7

JRC



CO  
JTC 1 SC 27



CEI



National  
Committees



AENOR





# Relation to other mandates

**Rapporteur**

David Johnson

**Working Group**

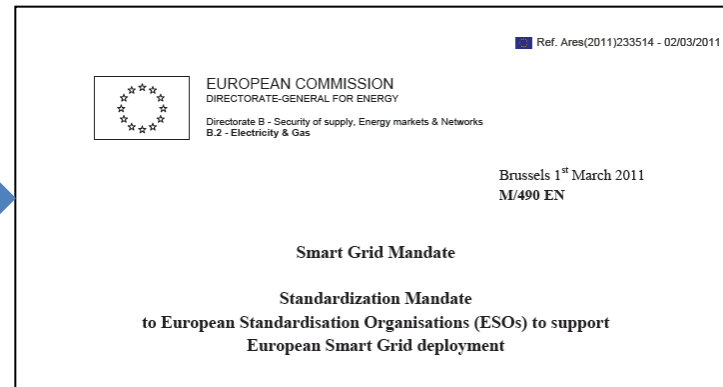
Responsible Persons

**Rapporteur**

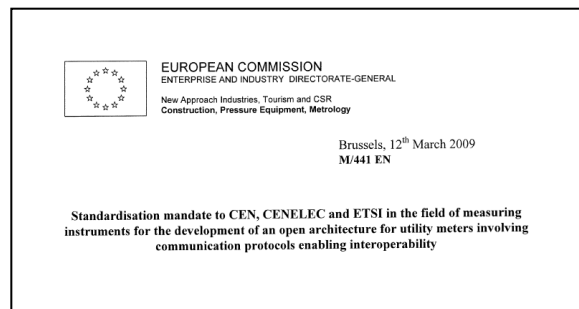
Claus Andersen

**Adhoc Group**

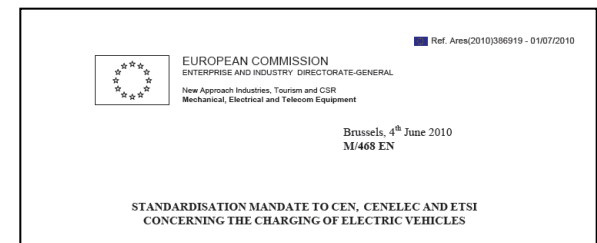
Smart Charging



**M490 Smart Grid**



**M441 Smart Metering**



**M468 E-Vehicles**

# EC Conference 28.01.13

- 300 plus participants
- High level representation and presentation
- Our results highly welcome

## Event

### European Conference on Smart Grid Standardization Achievements


28 January, 2013

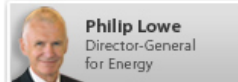
'Charlemagne' building - Rue de la Loi / Wetstraat 170 Brussels



The European Commission, with the support of European Standardization Organizations (CEN, CENELEC and ETSI), organizes a high-level conference entitled "Smart Grid Standardization Achievements". The European Commission's mandates to the European Standards Organization for Smart Meter standards were issued in March 2009, for electric vehicle standards in June 2010 and for Smart Grids standards in March 2011. The objective of the conference is to disseminate the achievements of the work carried out so far on the basis of these mandates.

The conference will be open to the general public. There is no registration fee but online pre-registration under the following link is necessary. A confirmation of participation will be issued at the beginning of 2013. Please note that due to the limited capacity of the conference rooms, the Commission services reserve the right not to accept registration above limited capacity.

- Registration is already closed
- [Agenda](#)  [66 KB] (last update: 24/01/2013)
- You can also watch the event online [here](#)



## Quick jump

- [ACER](#)
- [EACI](#)
- [Energy Community](#)
- [Climate Action](#)
- [Covenant of Mayors](#)
- [Europe Direct](#)
- [EU Calendar](#)

## Calendar

- [08/03] Grants "TEN-E-2013 call for proposals under the annual work programme for grants in the field of the Trans-European Energy Network"
- [05/03] First EU - Norway Energy Conference



Smart Grid Mandate  
Standardization Mandate  
to European Standardisation Organisations (ESOs) to support  
European Smart Grid deployment

# Mandate Iteration

## Content

### ■ Methodology

A further [refinement of the methodology](#) should be provided by end of 2013. The refinement of methodology will be used for the set of consistent standards. (under item 3.1 and 3.2 of M/490)

### ■ Set of Consistent Standards

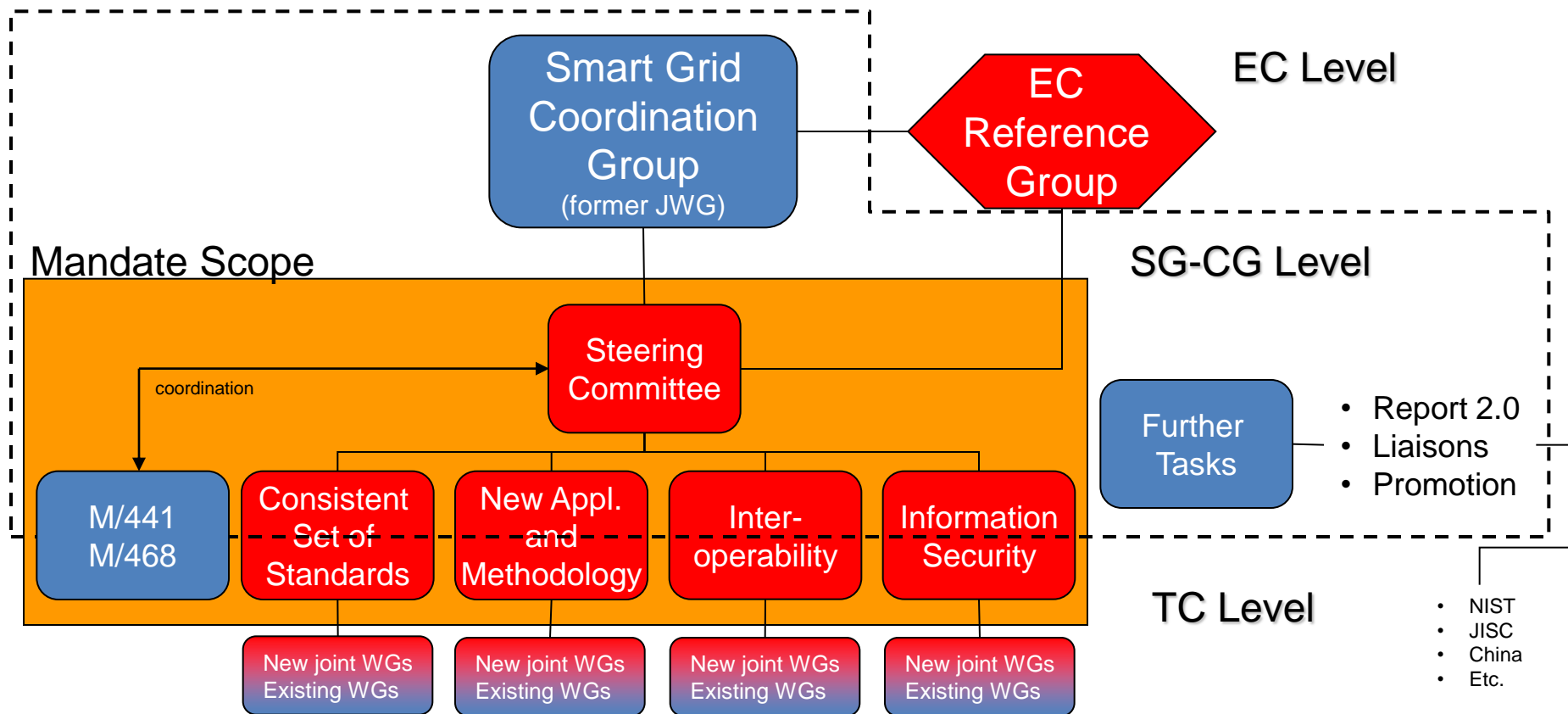
A [set of consistent standards](#) should complement the “first set of standards” by end of 2014. This will include a [prioritization of new gaps](#) ... Those gaps will be included in the ongoing [work programme](#) of M/490 by end of 2013 in cooperation with the relevant Technical Committees (under item 3.3 of M/490).

### • Interoperability

The following [Interoperability aspects](#) should be investigated:

- system interoperability testing method
- conformance testing map
- assessment of needed profiles

# Structure of SG-CG



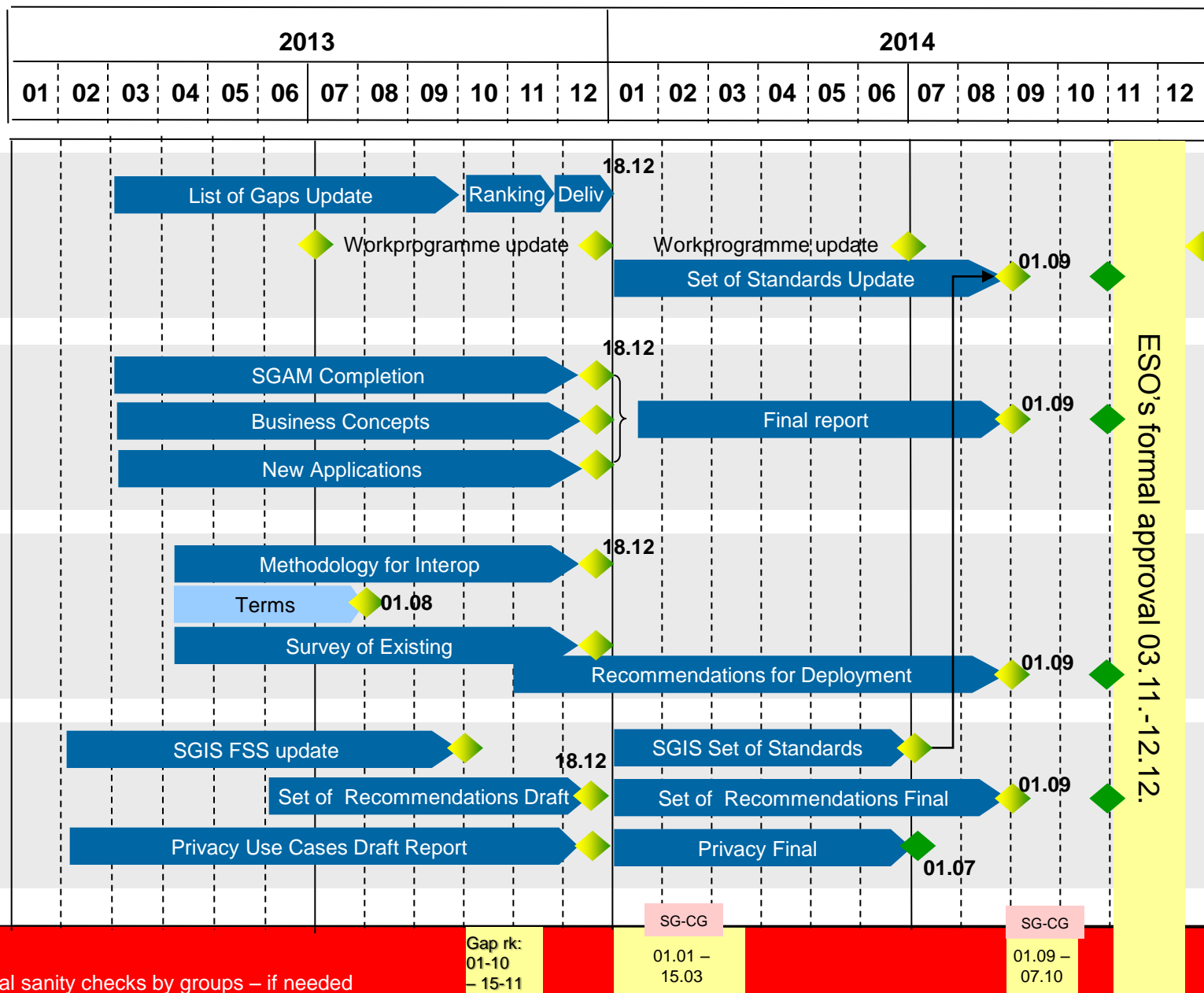


## Milestone Plan Set of Standards

## Milestone Plan Methodology

## Milestone Plan Interoperability

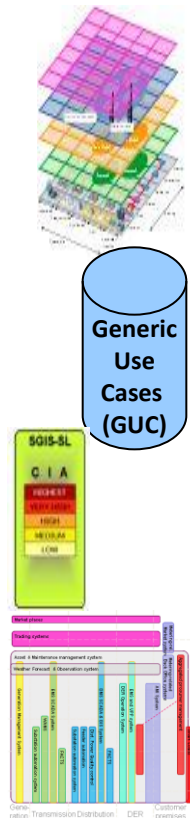
## Milestone Plan Security



# Smart Grid Coordination Group (SG-CG) of CEN, CENELEC and ETSI

## Phase 1

- From 6/2011 until 12/2012
- Reference Architecture -> SGAM, conceptual model
- Sustainable processes -> Use Cases
- Smart Grid Information security (SGIS) – SGIS Toolbox
- First of standards
  - Prioritisation, work programme
  - First set of standards
- Framework for new standardization process for complex systems



## Phase 2

- currently under development until end of 2014
- Methodology (Use Cases, reference architecture, SGAM, conceptual model, market and flexibility, new applications)
- SGIS
- Set of Standards (Update)
- Interoperability (recommendations, Excel tool)

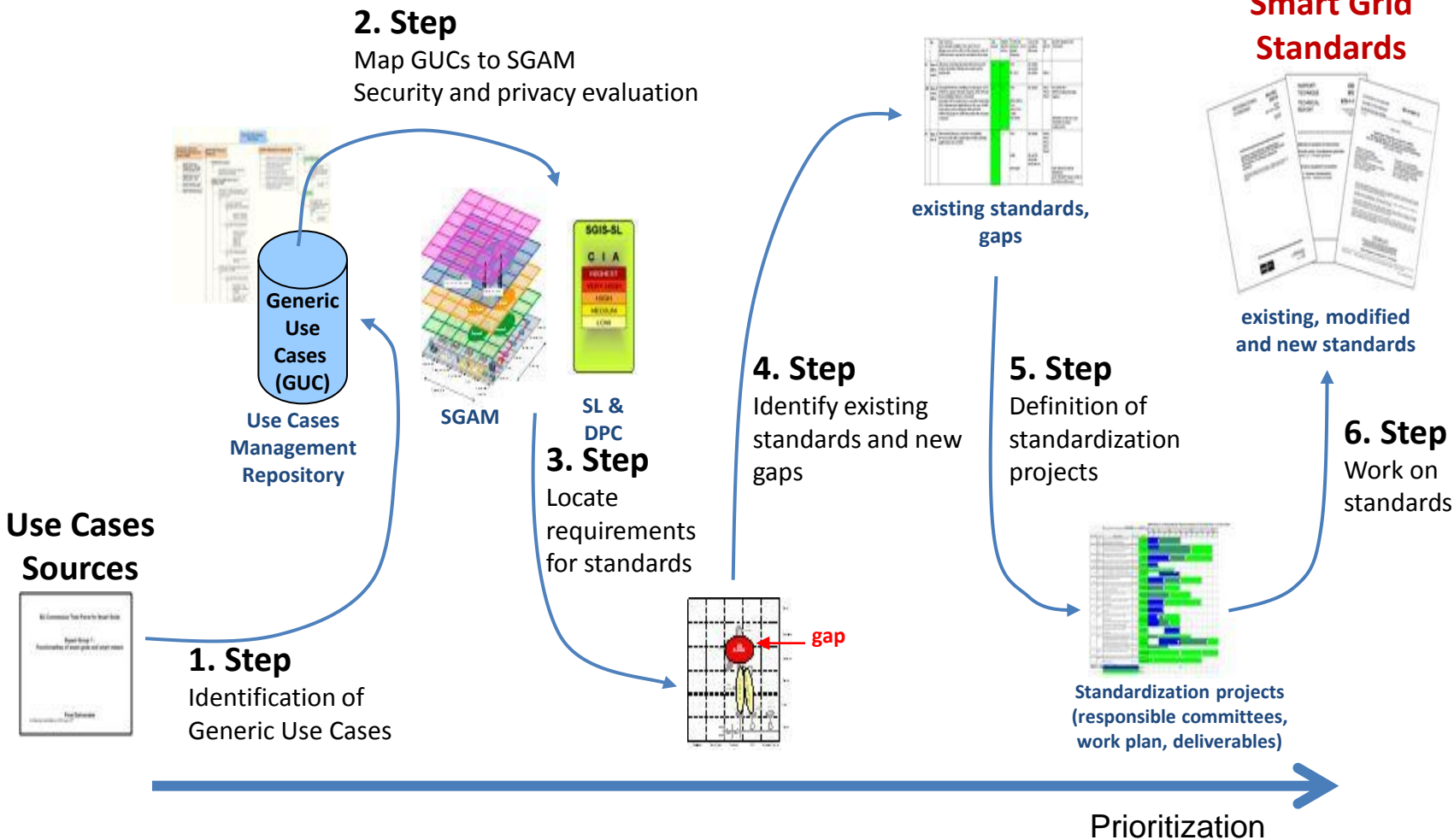
All reports of phase 1 are available under

<http://www.cencenelec.eu/standards/Sectors/SustainableEnergy/Management/SmartGrids/Pages/default.aspx>

# Mandate M/490 – SG-CG

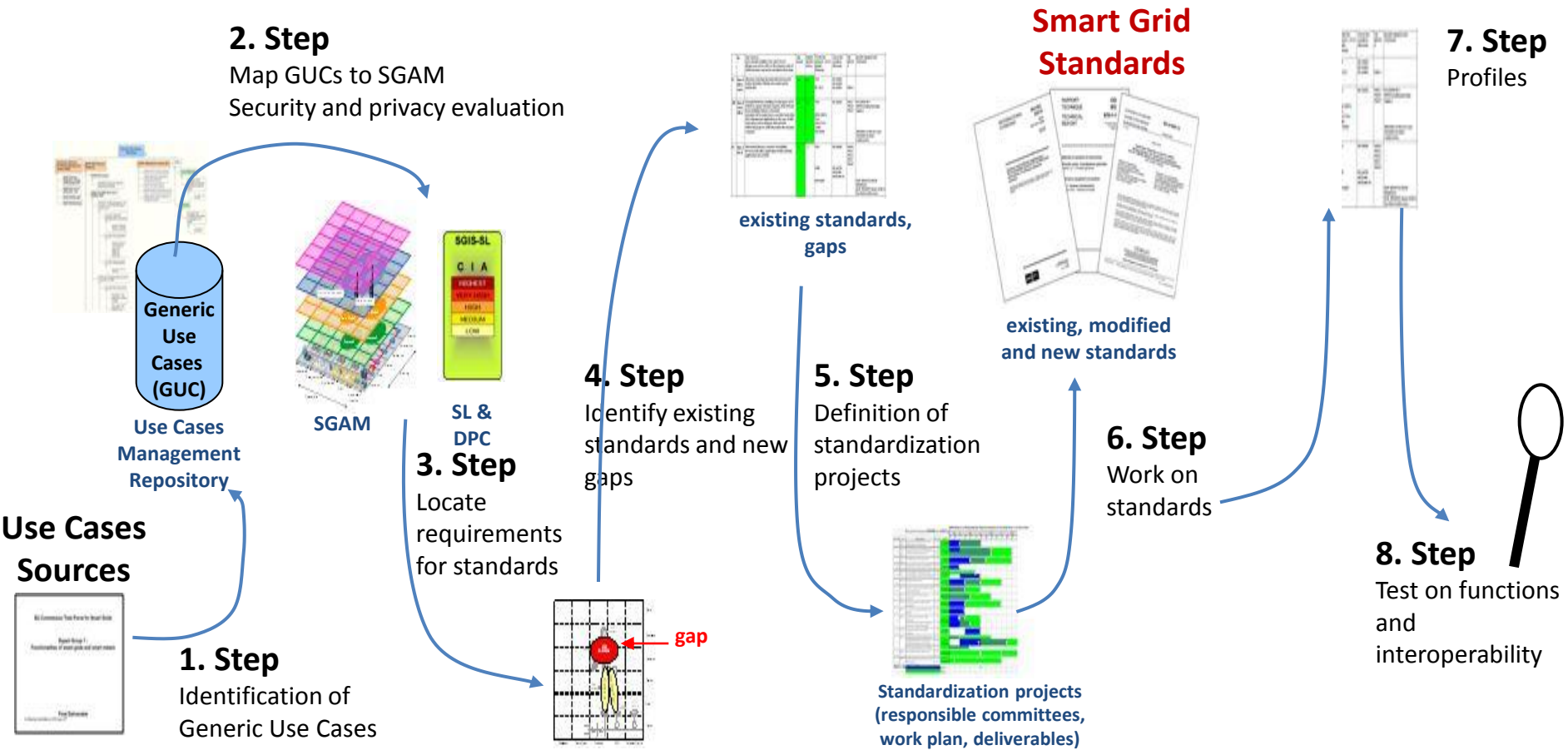
## New process for standardization

### Smart Grid Standards





# Process including testing



source: SG-CG

# International activities

## International plenary

- Brussels, June 2012
  - Participation US, Brazil, Japan, China, Korea, IEC, ITU

## USA

- NIST - White Paper
  - White Paper NIST/SG-CG published Sept.11 at Grid Week
- SGIP – Letter of Intent
  - Letter of Intent signed Dec.11 at Grid-Interop

## Japan

- JISC – SG-CG meetings 2010, 2011, 2012 and 2013



# International activities



*JISC Meeting, Tokyo, Nov.2010*

## ■ Formal agreements

- IEC
- ISO
- ITU-T, 3GPP

## ■ Observers

- JISC
- NIST

## ■ White Paper

- White Paper NIST/SG-CG published 12.09 at Grid Week
- CEN: <http://www.cen.eu/cen/News/PressReleases/Pages/SmartGridStandardsDevelopment.aspx>
- CENELEC: [http://www.cenelec.eu/pls/apex/f?p=WEB:NEWSBODY:1948780659821220::NO::P300\\_NEWS\\_ID:65](http://www.cenelec.eu/pls/apex/f?p=WEB:NEWSBODY:1948780659821220::NO::P300_NEWS_ID:65)

Whitepaper of NIST and SG-CG on standardization of Smart Grids

**Whitepaper on standardization of Smart Grids**

**published by**

**NIST &**

**Smart Grid Co-ordination Group**

Status: third draft v3.0.

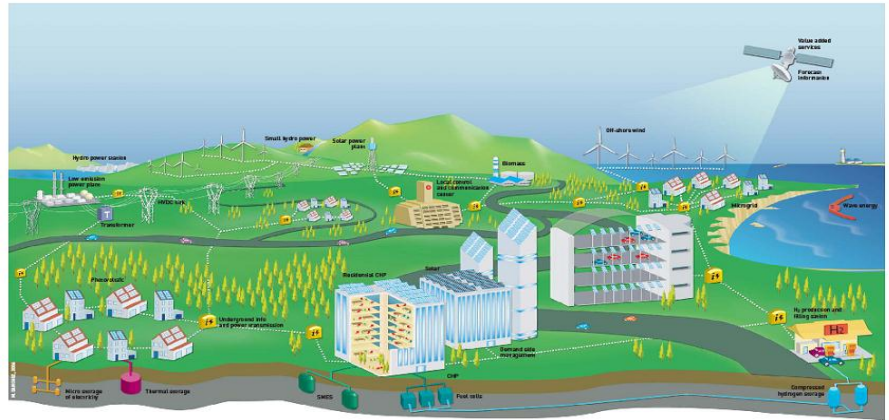
# Summary

## Achievements

- Consensus
- On time
- International acknowledgement

## Standardization is ready

- Systematic process in place
- Current industry applications are supported by standards
- Selection guide available - easy entry for all stakeholders
- Overview on available and coming standards
- Work programme describes time table for new standards
- Future requirements can be easily included in systematic framework



# Thank you for your attention

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