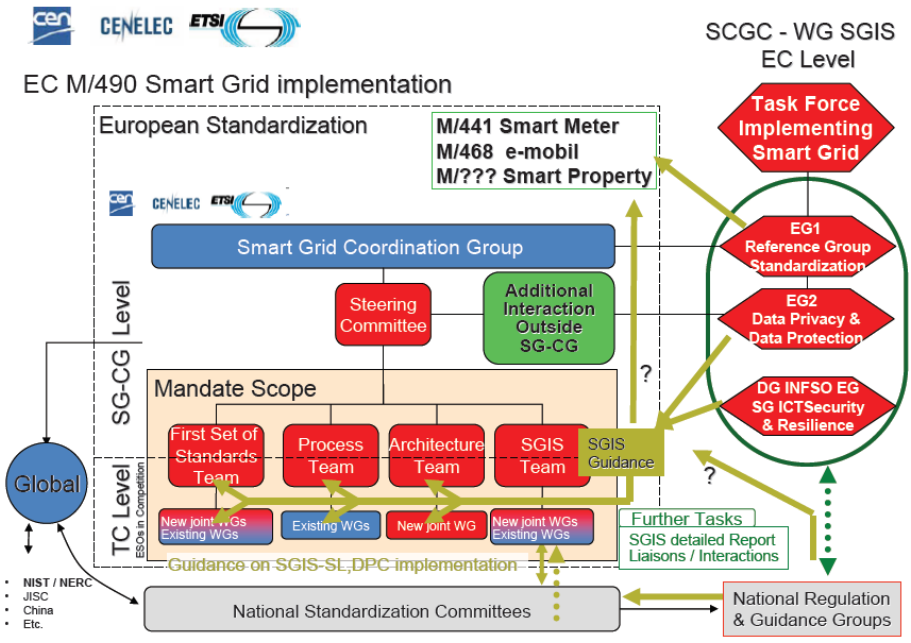
FINSENY Standardisation Contributions

FINSENY is contributing to the M/490 mandate of the European Commission. FINSENY is now actively involved in three working groups of the Smart Grid Coordination Group (SG-CG):

- **Sustainable process working group SG-CG SPWG** (Alexander von Jagwitz, BAUM): Our contribution of the FINSENY use cases has been particularly relevant for their work. We provided the 2nd largest set of use cases to their overall set of more than 500. The first interim report of the group was under final external review until end of April and accepted by the EU. We will continue to contribute to the group, especially in the definition of generic use cases. Along with these the group is compiling their final report.
- **Reference Architecture working group SG-CG RAWG** (Fabio Bellifemine TI, Jürgen Heiles NSN):
  We are contributing to the work specifically looking for alignment between the Smart Grid Architecture Model (SGAM) defined by this group and the FINSENY architecture. A first interim report has been prepared, which under final external review until end of April 2012. We will continue to contribute to the architecture definitions.
- **Security working group SG-CG SGIS WG** (Steffen Fries, Siemens):
  FINSENY provided specific information to the current interim report and will contribute further to the SGIS work. This is being possible, as the security task in FINSENY performs some similar task as the SGIS with the specific focus on the five use case WPs. FINSENY performed a threat and risk analysis for the five use cases identifying IT security related threats and risks. Based on the identified threats and risk security requirements have been formulated. This has been fed into the SGIS WG. Moreover, a sub-team of the SGIS WG currently develops a Risk Assessment methodology, specific input could be provided, based on the experiences gained through the FINSENY threat and risk analysis.
  Further input has been provided based on the analysis of security measures necessary to cope with the derived security requirements. Existing (state of the art) security counter measures have been investigated, especially focusing on domain specific standards like IEC 62351. This investigation in terms of suitability and potential enhancements to IEC 62351 has been fed into the SGIS WG for their gap analysis.

The next figure shows the SG-CG working group structure and interaction:



FINSENY is also contributing in some way to other standards:

- ZIGBEE:
  Finseny is actively contributing to the next release of ZigBee Home Automation Profile in order to integrate the Home Domain use cases of WP4:
  - Monitor and manually Control Energy Use
  - Optimize Home Energy Globally
  - Optimize Home Energy Locally

  A ZigBee Home Automation interoperability event (ZigFest) was hold in Torino between Nov. 29th and Dec 1st partly supported by Finseny. Some of the FINSENY WP4 scenarios/use cases specification went through the test of interconnectivity at application layer.
  The standardization strategy of Finseny in ZigBee is based upon interoperability between ZigBee Smart Energy and ZigBee Home Automation application profiles, valorisation of the broadband connectivity, and synergy with other EU projects, in particular Energy@home, eCube and EEBus.
  Finseny submissions so far are the followings:
  - Updates on TRD, ZigBee doc # 115382 , 21/6/2011
  - SE/HA interoperability, ZigBee doc #11555, 2/8/2011

- ETSI- M2M
  - Intermediate representation data was presented by Orange.
  - This could be the seed for the home energy management information Layer of Finseny.

FINSENY is also contributing to the CONCORD standardisation working group. Mr Andreas Harner from VDE is representing FINSENY in that CONCORD working group.
The main activities now are gathering the current state of the art from other projects in order to deliver a paper with it serving to the projects for respective positioning and engagement of the relevant people.

FINSENY is contributing with its standardization strategy, one of the most advanced one between the FI-PPP projects. The last meeting was a virtual meeting on 29th June 2012.

FINSENY has contributed to the European Commission public consultation on the use of radio spectrum for more efficient energy production and distribution. This consultation gives an opportunity to create harmonization on the use of radio spectrum for the Smart Grids, and this means laying the foundation for a (de facto and/or de iure) standard.

In summary:

- Distribution automation, management and control of the Smart Grid Network, are the most mission-critical area.
- Wired communication solutions are preferred in this area. Wireless solutions will also play a role especially in lower voltage areas. ICT infrastructure used for such purposes will be composed of a mix of different wired and wireless communications, including powerline communication. However some argued strongly against powerline for any mission critical application.
- Utilities argued that dedicated or exclusive spectrum for a specific utility application would be the necessity, especially as certain non-exclusive spectrum bands may not be appropriate for mission-critical applications (unfavorable license conditions, inadequate nature or unpredictability of the applicable sharing conditions of available spectrum bands and unsatisfactory protection against (harmful) interference). However most of the other respondents, including national administrations, don't see a justification for dedicated or exclusive spectrum for smart grid services.

The complete report on the results of the consultation can be found at:
http://ec.europa.eu/information_society/policy/ecomm/radio_spectrum/_document_storage/consultations/2012_energy_efficiency/energy_efficiency_pc_summary.pdf