HORIZON 2020 and Smart Grids

Content of this presentation is not legally binding
Europe 2020:

- Europe 2020 is the EU's growth strategy for the coming decade

- Three mutually reinforcing priorities:
  - Smart growth
  - Sustainable growth
  - Inclusive growth

- Energy 2020 strategy: towards a low carbon economy
Horizon 2020:

- Commission proposal for a 80 billion euro research and innovation funding programme (2014-2020)

- A core part of Europe 2020 Strategy, Innovation Union flagship initiative & European Research Area:
  - Responding to the economic crisis to invest in future jobs and growth
  - Addressing people’s concerns about their livelihoods, safety and environment
  - Strengthening the EU’s global position in research, innovation and technology and competitiveness of the European industry
What's new:

- **A single programme** bringing together three separate programmes/initiatives*
- **Coupling research to innovation** – from research to market introduction, all forms of innovation
- **Focus on societal challenges** facing EU society, e.g. clean energy, health and transport
- **Simplified access**, for all companies, universities, institutes in all EU countries and beyond.

*The 7th Research Framework Programme (FP7), innovation aspects of Competitiveness and Innovation Framework Programme (CIP), EU contribution to the European Institute of Innovation and Technology (EIT)
Three pillars:

1. **Excellent science (ERC, FET, MarieCurie, Infrastructures):**
   Identification and development of new cutting edge technologies and materials

2. **Industrial leadership (SMEs, ICT, Materials):**
   Innovative and efficient solutions to the technical challenges, including proprietary technologies, allowing European industry to stay in a global competitive and leading position

3. **Societal challenges:**
   Broader look at the technological and societal challenges striving for a multi-disciplinary innovative solution allowing Europe to become smart and sustainable
### Key challenges proposed funding:
(million euro, 2014-2020)

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<th>Category</th>
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(1) Reducing energy consumption and carbon footprint by smart and sustainable use;
(2) Low-cost, low-carbon electricity supply;
(3) Alternative fuels and mobile energy sources;
(4) A single, smart European electricity grid;
(5) New knowledge and technologies;
(6) Robust decision making and public engagement;
(7) Market uptake of energy innovation.
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A single, smart European electricity grid:

“Activities shall focus on research, development and full scale demonstration of new grid technologies, including storage, systems and market designs to plan, monitor, control and safely operate interoperable networks in an open, decarbonised, climate resilient and competitive market, under normal and emergency conditions.”
Horizon 2020 implementation:

- Support the **implementation of the SET-Plan**
- **Partnering with European stakeholders** (public or private)
- **Improved coordination** with relevant Programmes, initiatives and policies, e.g.
  - Significant % of regional funds dedicated to energy for smart regional specialisation by the **Cohesion policy**
  - Financing of projects to complete the missing links in the energy infrastructure by the **Connecting Europe Facility**
Building blocks for Grids in Horizon 2020:

**EEGI**
European Electricity Grid Initiative

*Industry led*
Large scale demonstration and system integration of mature technologies

*2020 perspective*

**EERA – JP Smart Grids**
European Energy Research Alliance – Joint Programme

*Research community led*
Excellence in research leading to new technologies development

*2020+ perspective*

**IEE**
Intelligent Energy Europe
Clean and sustainable solutions dissemination

**KIC InnoEnergy**
Knowledge and Innovation Community

*Education, research and industry led*
Tomorrow’s generation of engineers
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**ETP Smart Grids**
European Technology Platform
- Industry led
- Structuring technology research and development
- SRA 2035 perspective
Conclusions:

- On 01/01/2014 Horizon 2020 will start.
- Support of European grid technology excellence and its further development is the key for European industry to stay globally competitive.
- Cooperation between all the stakeholders is the key to achieve a pan-European Smart Grid contributing to a low carbon economy in Europe.
Thank You!