



# European Energy Strategy 2020 and beyond

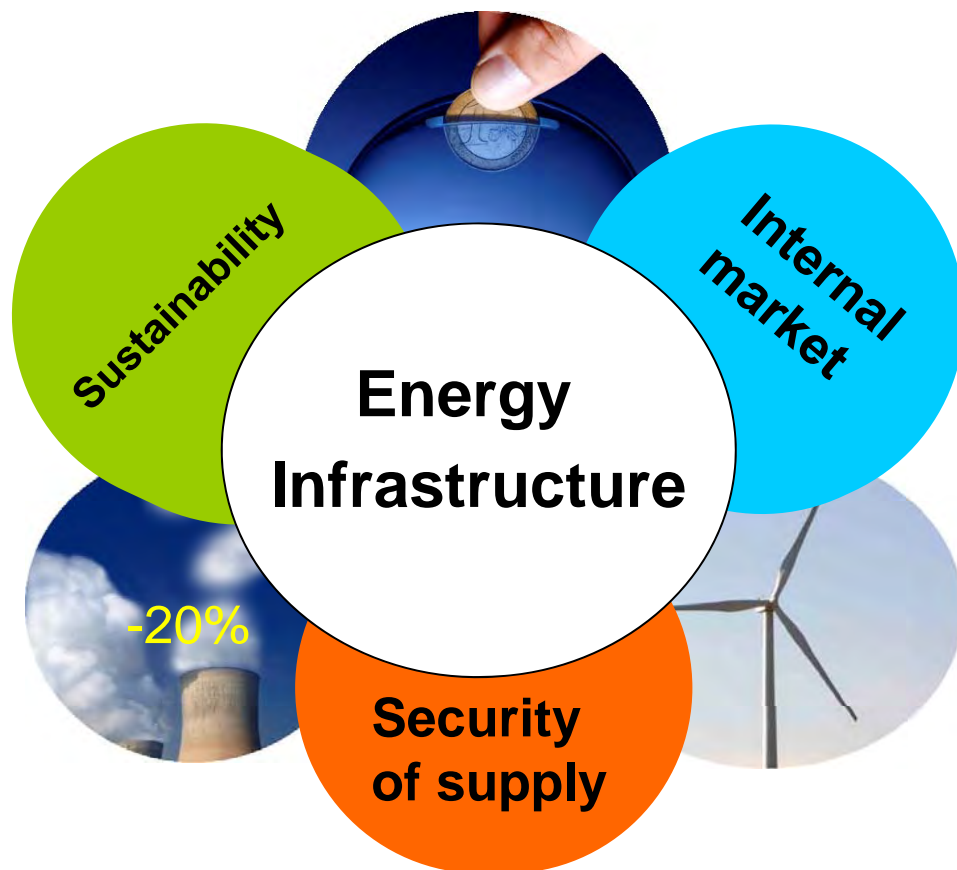
*Making the EU energy infrastructure fit for 2020 and  
beyond*

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Policy Officer  
Internal Market I: Networks and Regional initiatives

23/02/2012



# Infrastructure is at the heart of our energy and climate policy goals



Included under  
the flagship  
initiative  
**"Resource  
efficient  
Europe"**





# 4 February 2011 European Energy Council

## *Clear deadlines:*

*Completing the internal market by 2014*

*Ending the isolation of remaining energy islands by 2015*

*Reaching the 20-20-20 targets by 2020*

- **Energy efficiency**
- **Renewables**
- **CO2 reduction**



## Roadmap 2050 – Longer Term Perspective

*In the longer run the extension of the EU grid will be more and more driven by the decarbonisation of the EU economy and increased generation from renewables!*

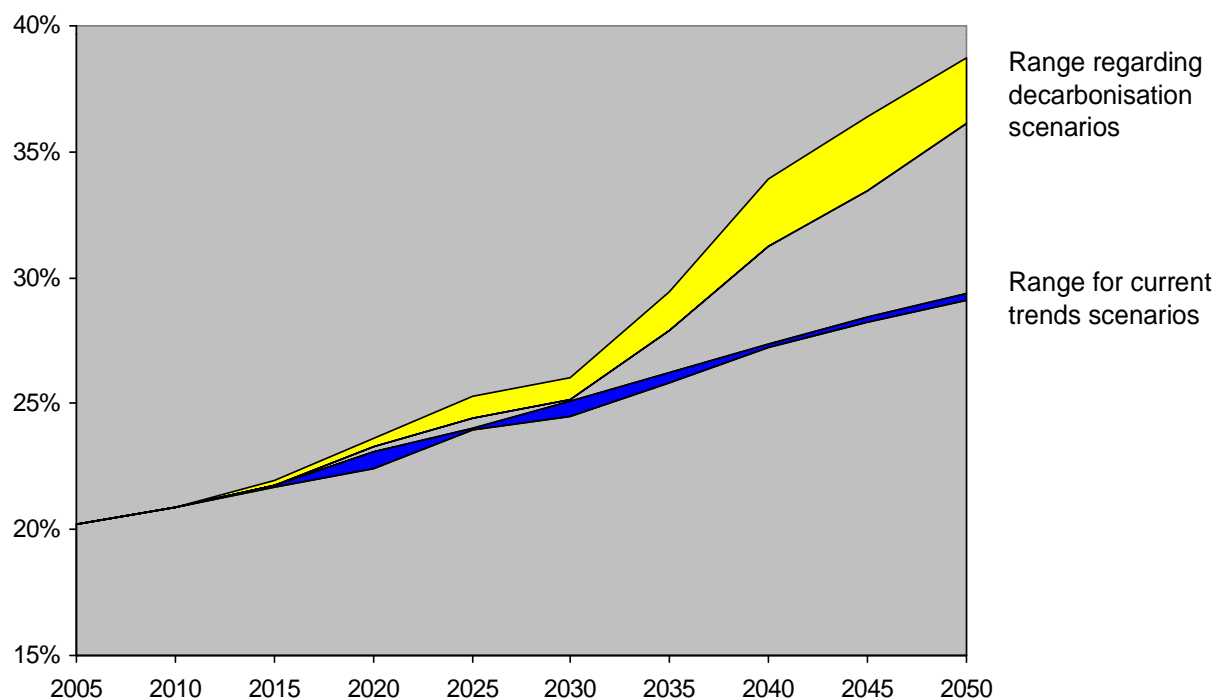
*Political will to **decarbonise** EU economy manifested in*

- **20-20-20 Strategy**
- **2050 Energy Roadmap**



# Decarbonisation also means electrification

**Graph 1: Share of electricity in current trend and decarbonisation scenarios  
(in % of final energy demand)**



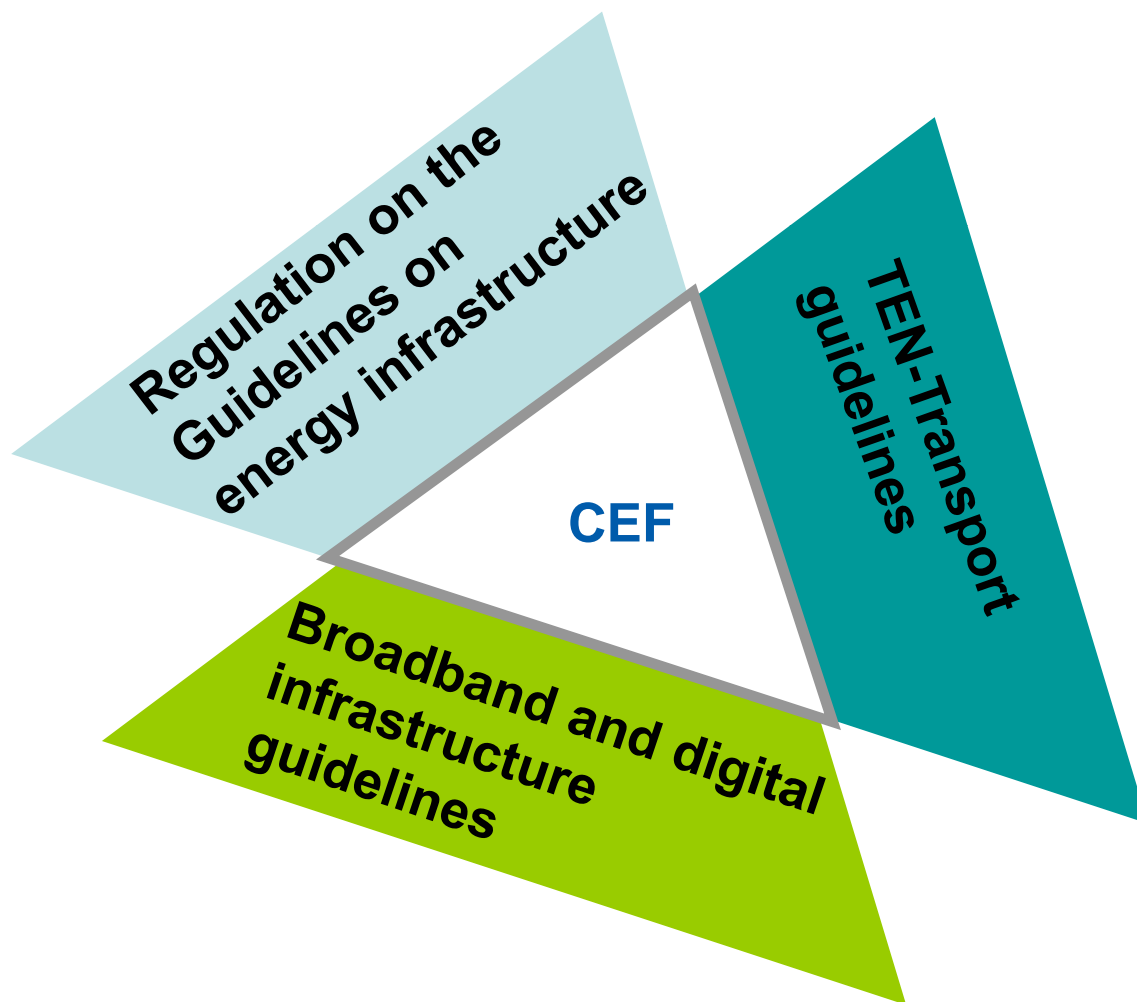
# Energy infrastructure priorities for 2020 and beyond - A Blueprint for an integrated European energy network

*Communication November 2010*





## The legislative proposals of the package



**Three sectoral  
infrastructure  
policy proposals**

**Connecting  
Europe Facility:**

Budget EUR

**Energy – 9.12bn**

Transport – 30bn

ICT – 9.1bn



# Regulation on guidelines for trans-European energy infrastructure

*Implementation of 12 priority corridors/areas, necessary to meet EU's energy and climate policy goals by 2020 and beyond...*

*...by providing policy and regulatory certainty through a stable and appropriate regulatory framework to promote the necessary investments.*

*Identification of Projects of Common Interest (PCIs)...*







# Measures to facilitate the implementation of projects of common interest

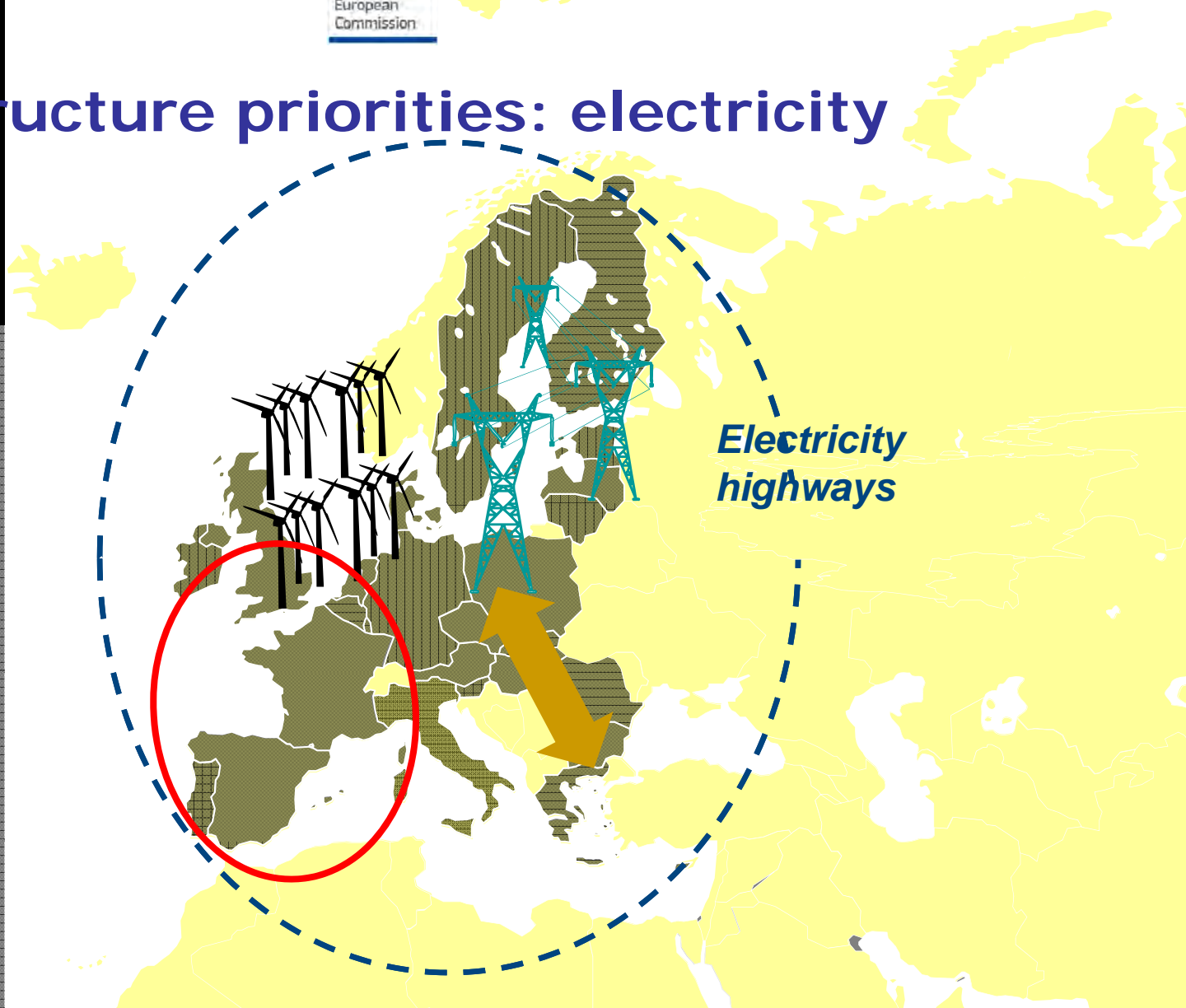
- *Permit granting and public participation*
- *Regulatory treatment*
- *Financing*
- *Other measures*



# Infrastructure priorities: electricity

- BEMIP
- North South interconnections in Western Europe
- North South interconnections in Central and South Eastern Europe
- Northern Seas Off-shore grid

"Smart grids"









# Optimised Grids at EU level

## *Electricity highways*

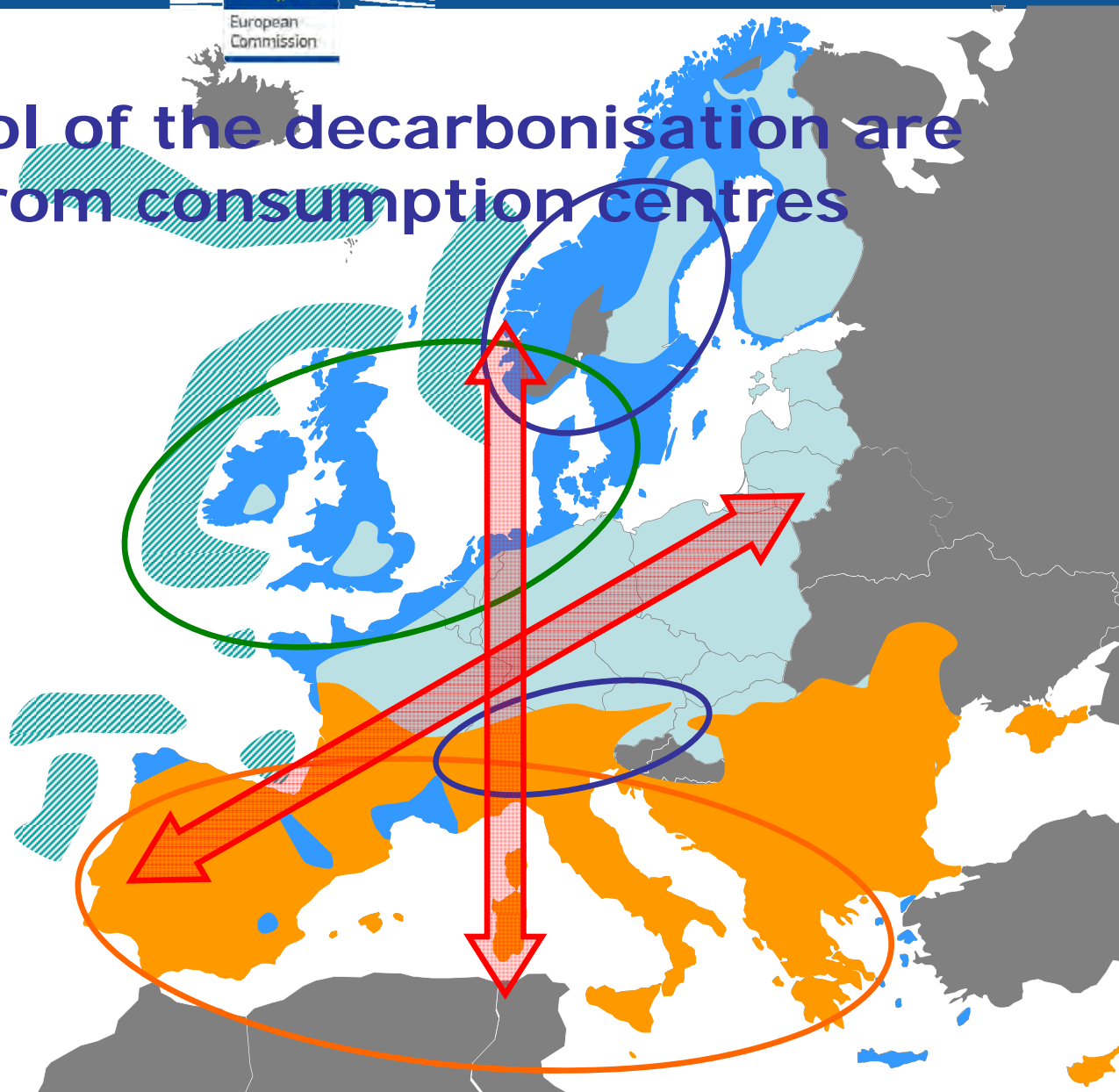
- to bridge in an efficient manner the increased distance between large production and large consumption areas
- Support from 7th Framework Programme (FP7)
- The information meeting of the EHSP on 29th February



# RES - key tool of the decarbonisation are located far from consumption centres

- Wind energy onshore 
- Solar energy 
- Wave energy 
- Bioenergy 

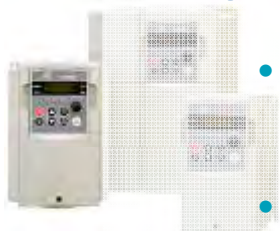
Simplified Map





# Technology is at the heart of infrastructure development

*RES and market integration require capacity and flexibility of:*



- **energy grids: integrated offshore grid, electricity highways, gas network adaptation to “power to gas”?**
- **energy storage: hydro storage, but also new technologies (chemical, compressed air, flywheel etc.)**
- **demand side management: smart grids, notably at distribution level**

*Any future infrastructure development will be subject to public acceptance: technology and research needed to reduce infrastructure footprint (better planning and public consultation, undergrounding, bundling etc.)*





# Smart Energy Systems

*Tapping the full potential of energy efficiency and demand response management:*

- Adjusting the regulatory framework, including tariff structures
- Stimulating the roll out of smart grids and meters
- Promoting a competitive energy services market





## Identification of smart grid projects of common interest– specific criteria

- *Market integration*
- *Integration of network users*
- *Efficiency and interoperability of transmission and distribution*
- *Network security, control and quality of supply*  
*Customer services*







## Preparing for the PCI identification *Commission proposal*

- *Use 2012 as preparatory year in view of establishing formally the regional groups (e.g. Smart Grid deployment) once the Regulation is adopted in order to:*
  - *Test the process for PCI identification proposed in the Regulation through a pilot exercise*
  - *Agree on priority-specific aspects of the proposed methodology, notably with regard to criteria*
  - *Come up by end 2012 with a list of potential PCIs*

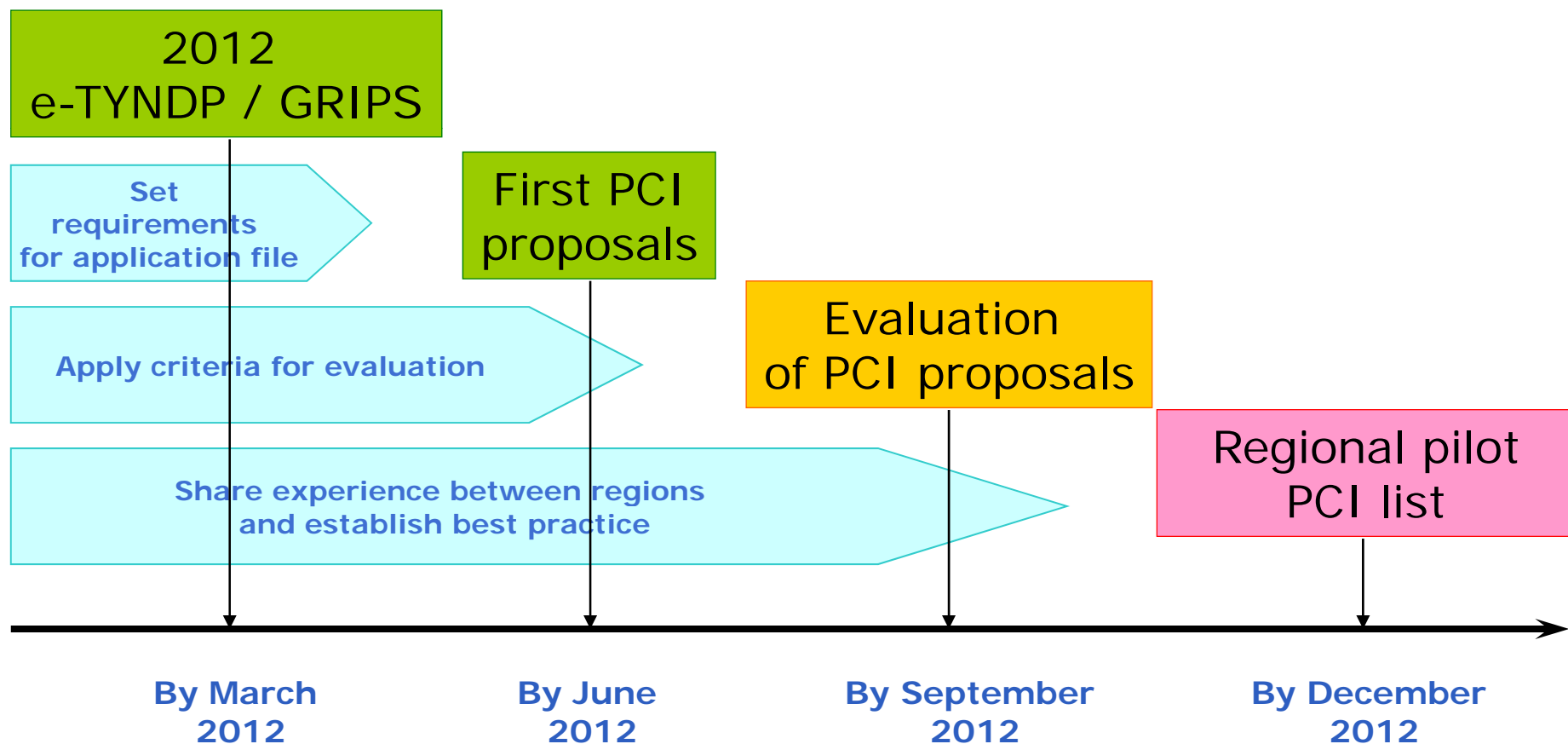






## Preparing for the PCI identification

### *Proposed timeline for each priority*





## Smart grid « regional group »

<i>Priority corridor</i>	<i>Member States</i>	<i>Existing groups</i>	<i>Proposed way forward</i>
<i>Smart grids</i>	<i>EU27</i>	<i>Smart Grid Task Force (COM lead)</i>	<ul style="list-style-type: none"><li>• <i>Dedicated working group within SGTF</i></li><li>• <i>Work with JRC</i></li></ul>

- *Need for specific methodology for project evaluation (currently under preparation with JRC)*
- **First Meeting of the SGTF "Infrastructure Development" will take place on 9th March**





# EU activities for development and deployment of Smart Grids

- *Technology push*
  - *RTD&D projects since 2003, more than €300 Million EU support*
  - *European Technology Platform, launched in 2006*
  - *Strategic Energy Technology Plan – European Electricity Grids Initiative, launched in June 2010*
- *Market push*
  - *Market regulation: 3rd energy package, adopted in August 2009*
  - *Task Force for Smart Grids, November 2009 – June 2011*
  - *European Infrastructure Package, Nov. 2010 and Oct. 2011*
  - *Communication on Smart Grids, COM(2011)202 - 12 April 2011*
  - *Energy Efficiency Action Plan and revision of ESD in June 2011*





## The Energy Roadmap 2050 as a basis for developing a long-term policy framework **Supported by scenario analyses**

### European Council

*EU objective for 2050 – GHG emissions down to 80-95% below 1990 levels*

*Looks forward to elaboration of a low-carbon 2050 strategy – a framework for longer-term action in energy and related sectors*

### Aim of the Roadmap

*Give more certainty to governments and investors*

*Explore routes towards a low-carbon energy system by 2050 which improve competitiveness and security of supply*

*Basis for developing the 2030 policy framework and concrete milestones with MS, EP and stakeholders*



**Thank you for your attention**

