



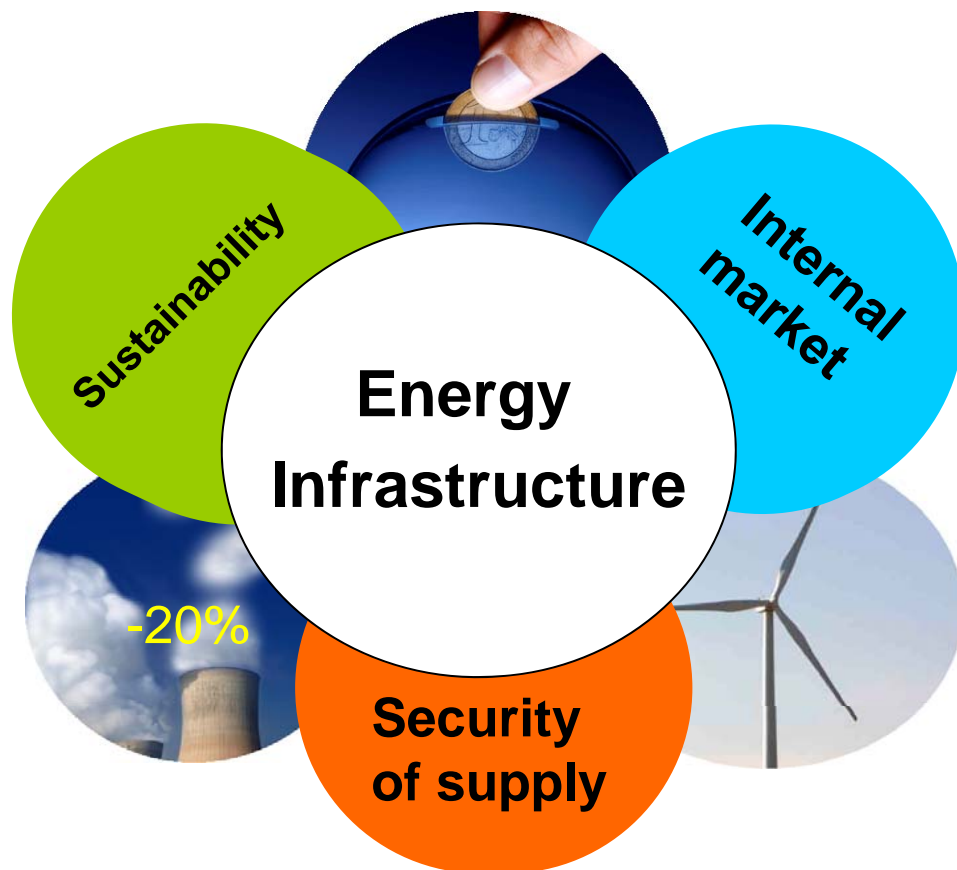
European Energy Strategy 2020 and beyond

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

Mariusz Hubski
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!

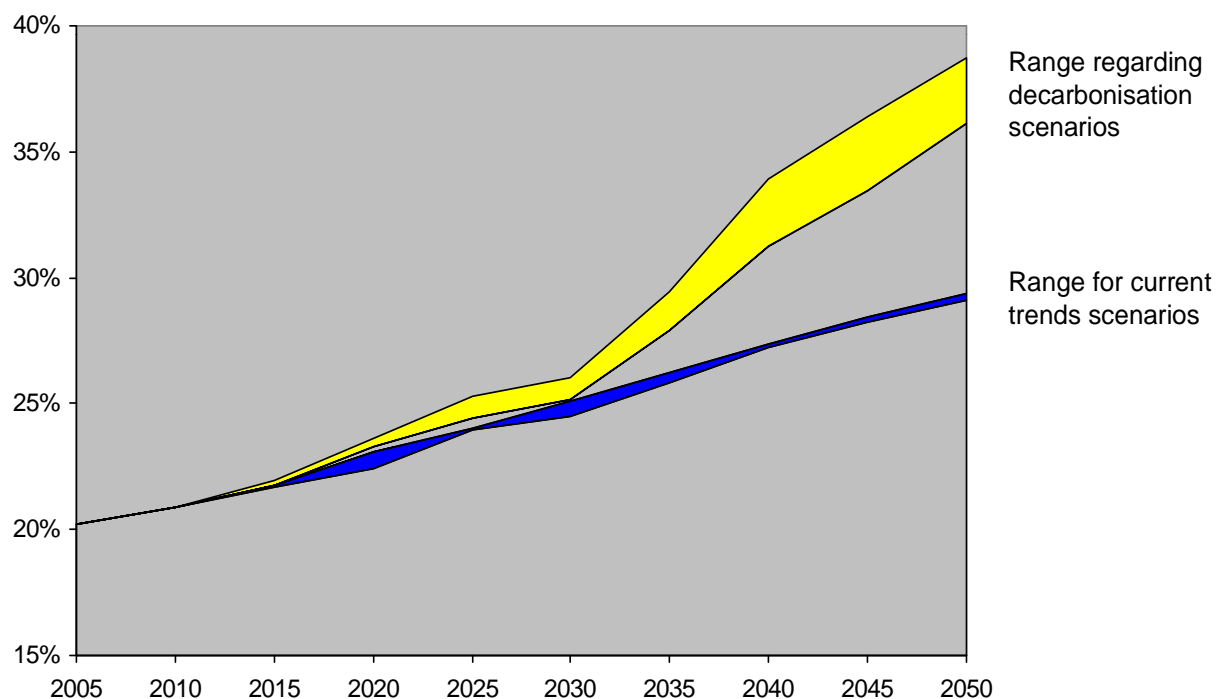
*Political will to **decarbonise** EU economy manifested in*

- **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)**

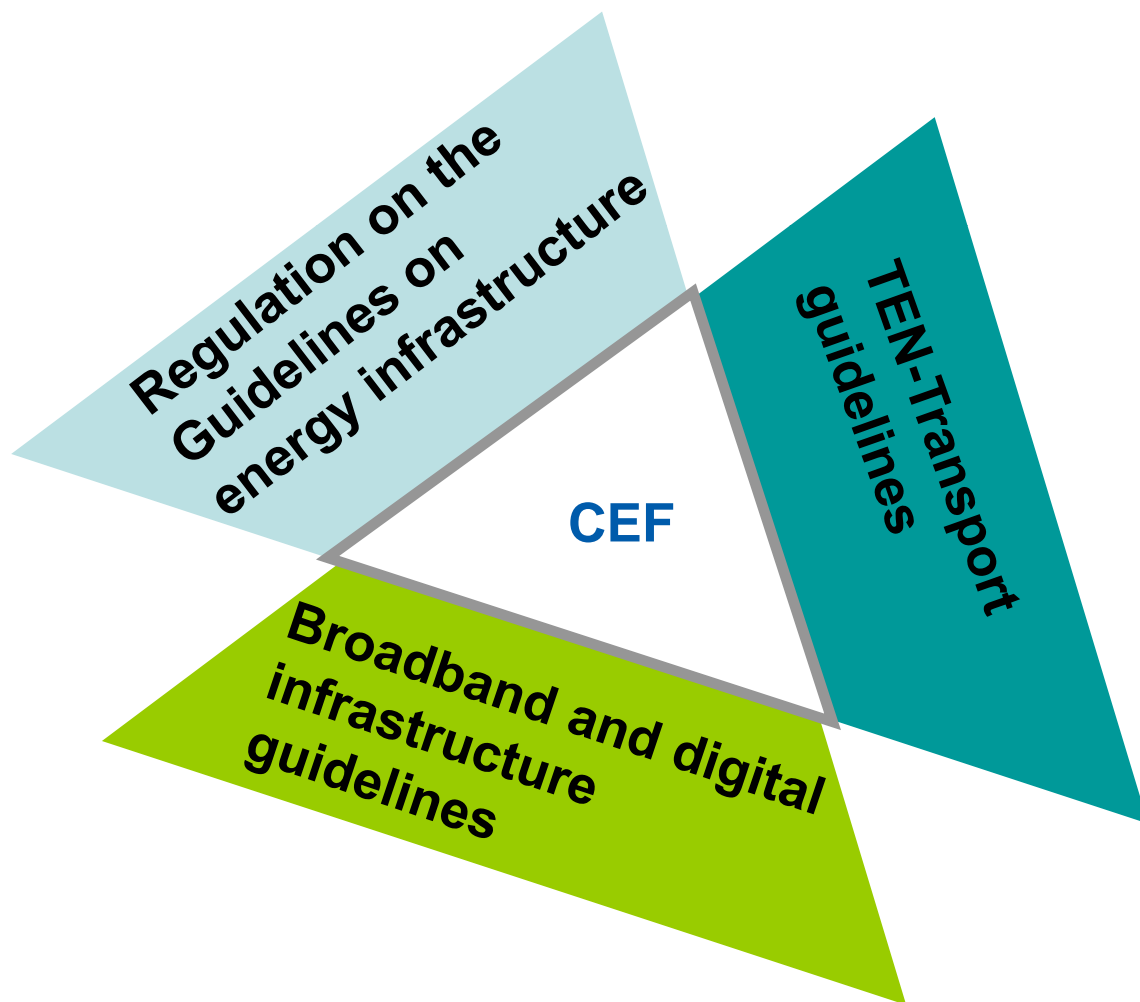


Energy infrastructure priorities for 2020 and beyond - A Blueprint for an integrated European energy network

Communication November 2010



The legislative proposals of the package



**Three sectorial
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

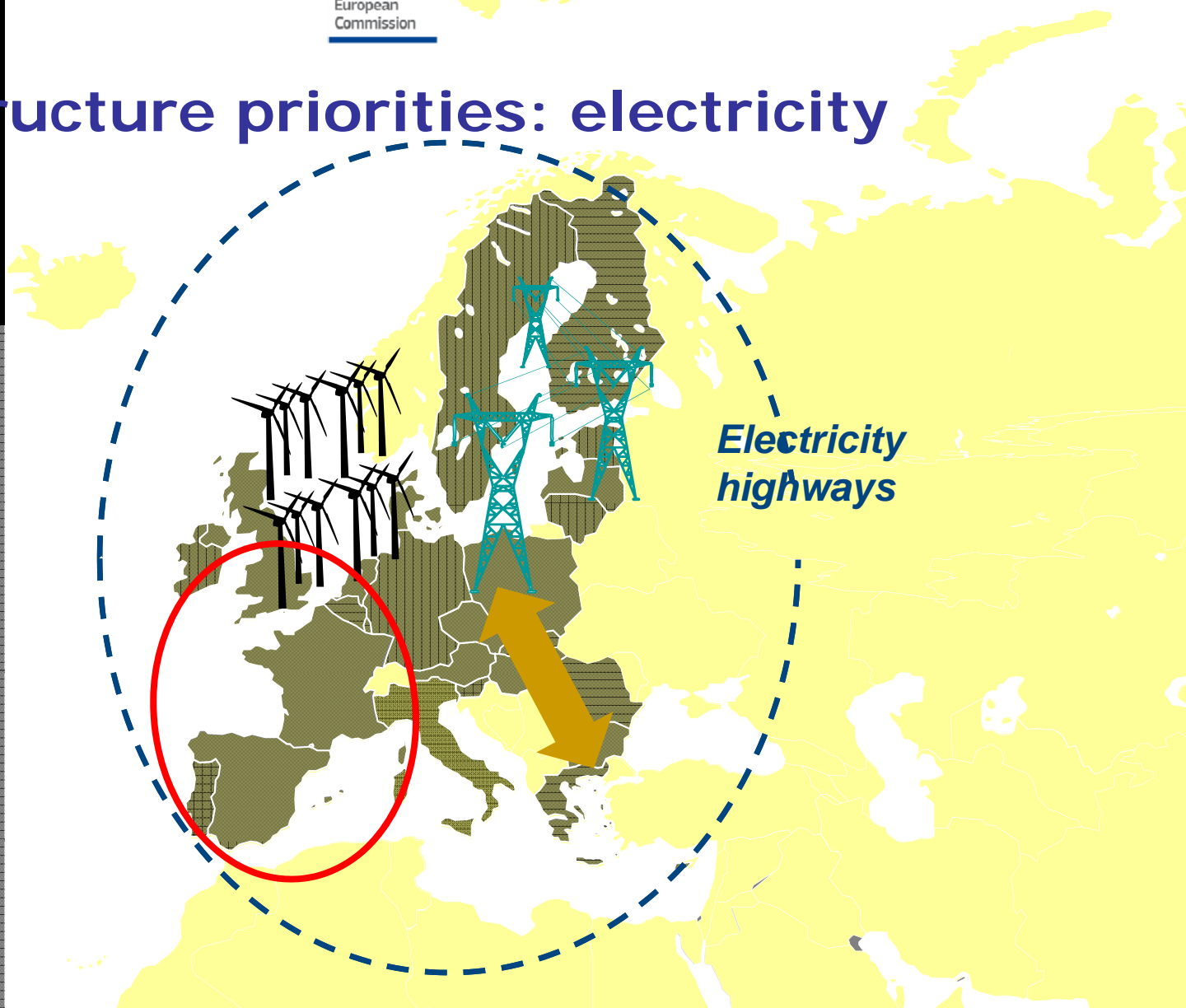
- *Permit granting and public participation*
- *Regulatory treatment*
- *Financing*
- *Other measures*



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

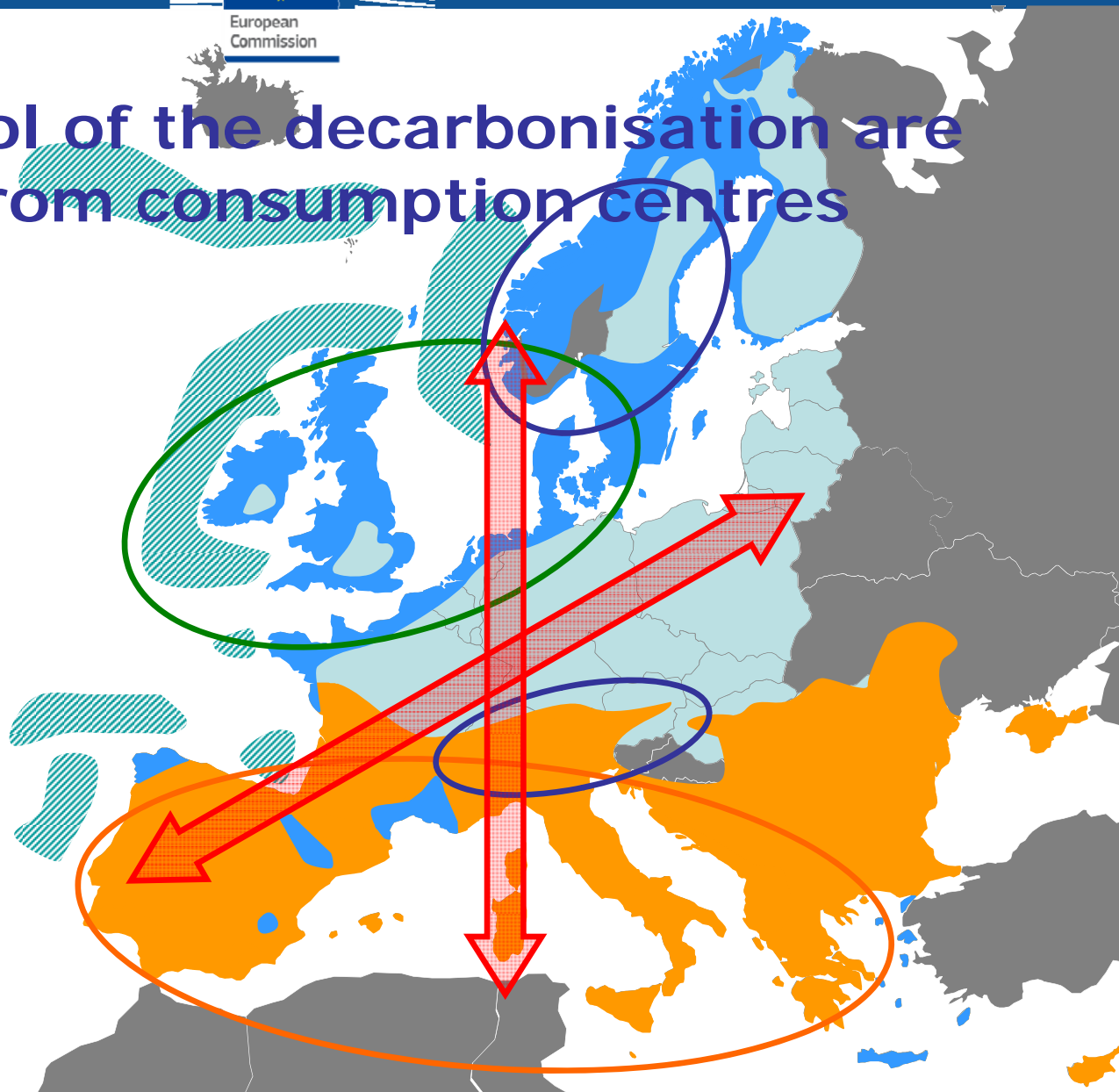
- to bridge in an efficient manner the increased distance between large production and large consumption areas
- Support from 7th Framework Programme (FP7)
- The information meeting of the EHSP on 29th February



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





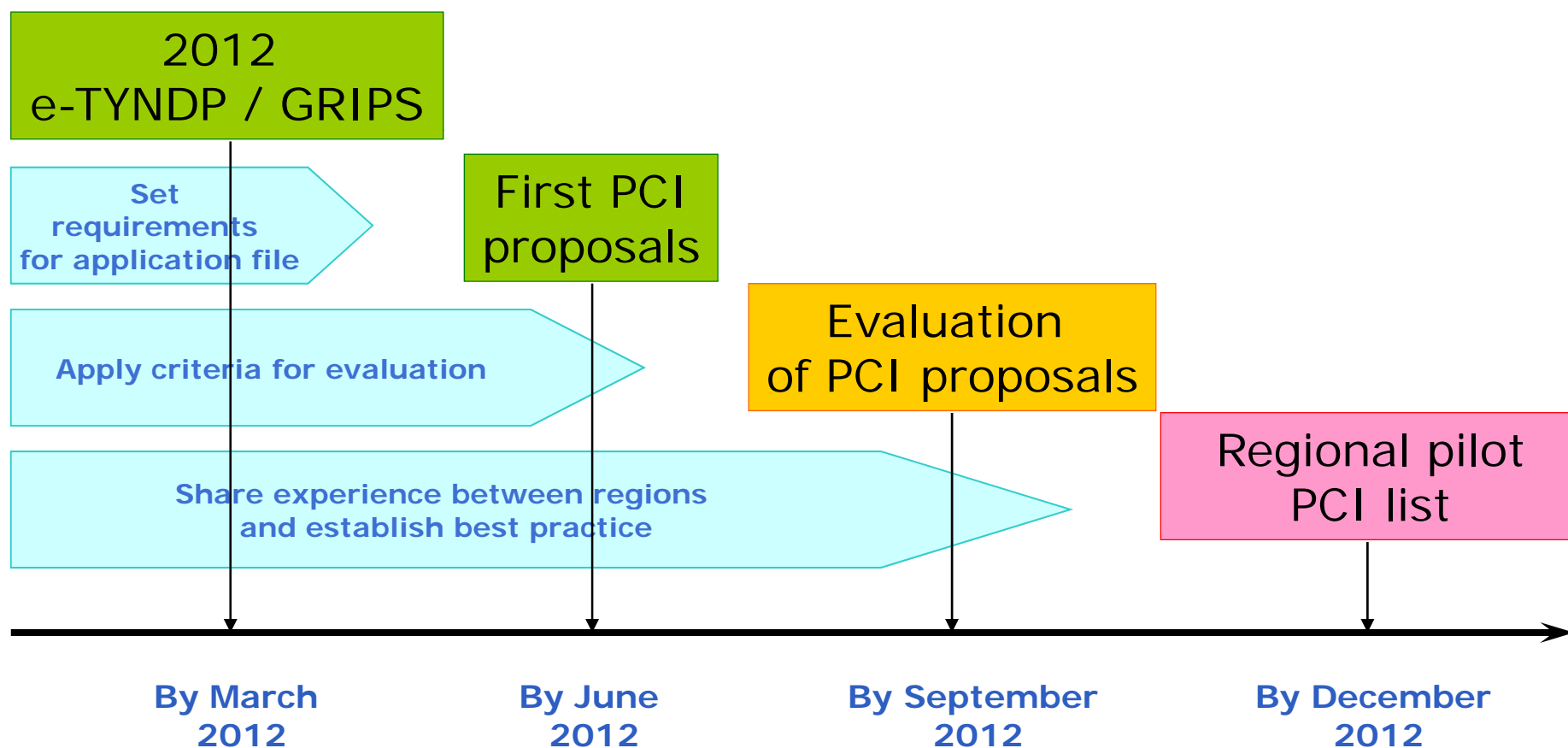
Preparing for the PCI identification *Commission proposal*

- *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">• <i>Dedicated working group within SGTF</i>• <i>Work with JRC</i>

- *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

