



EWEA
THE EUROPEAN WIND ENERGY ASSOCIATION



Power market harmonization in Europe

Towards a green super market in Europe...

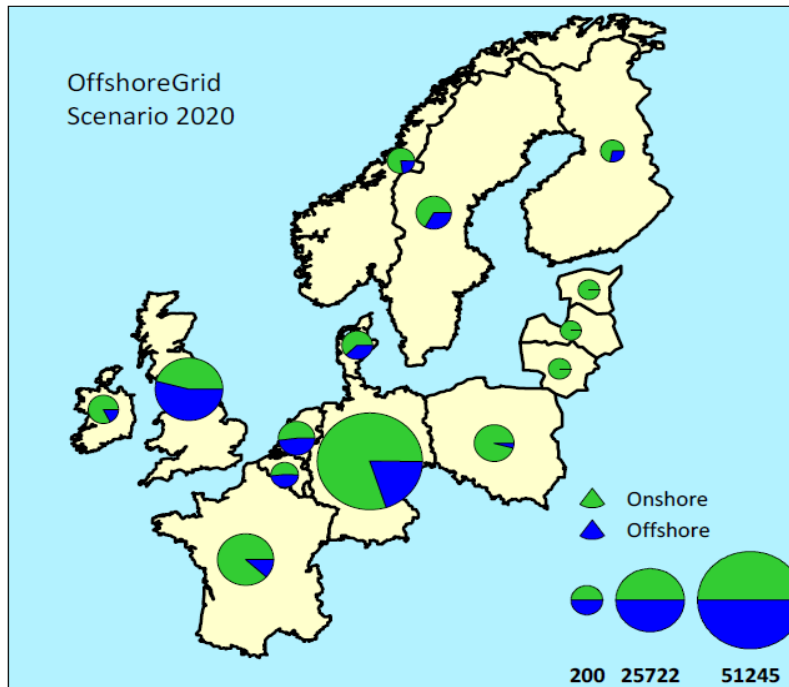
Frans Van Hulle

*Technical Advisor to
European Wind Energy Association*

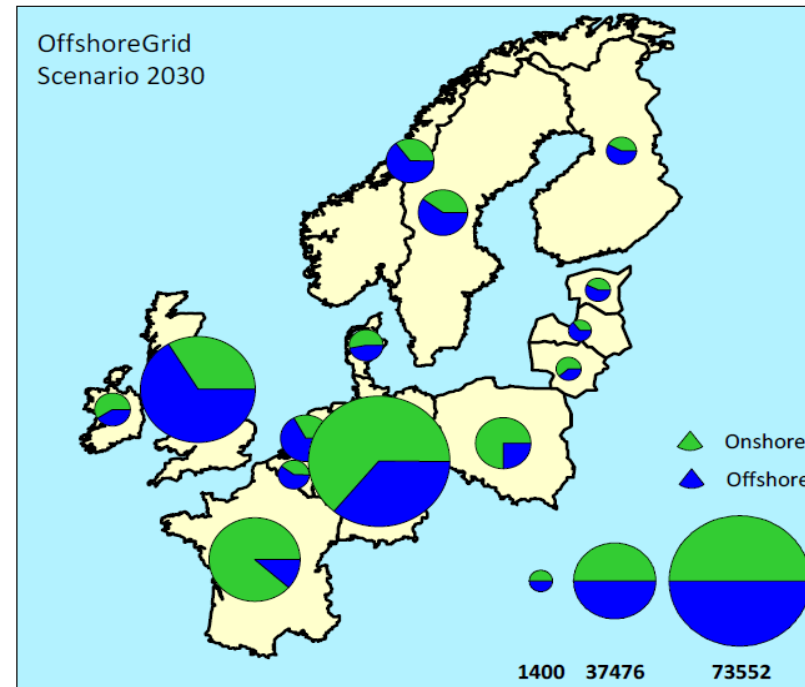
UWIG Fall Workshop, Québec, October 14-15, 2010

- Principles for markets facilitating wind integration
- Market consolidation in Europe: towards single European electricity market
- European legislative framework for harmonisation: 3rd package

Onshore and offshore wind scenarios for 2020 and 2030 [MW]

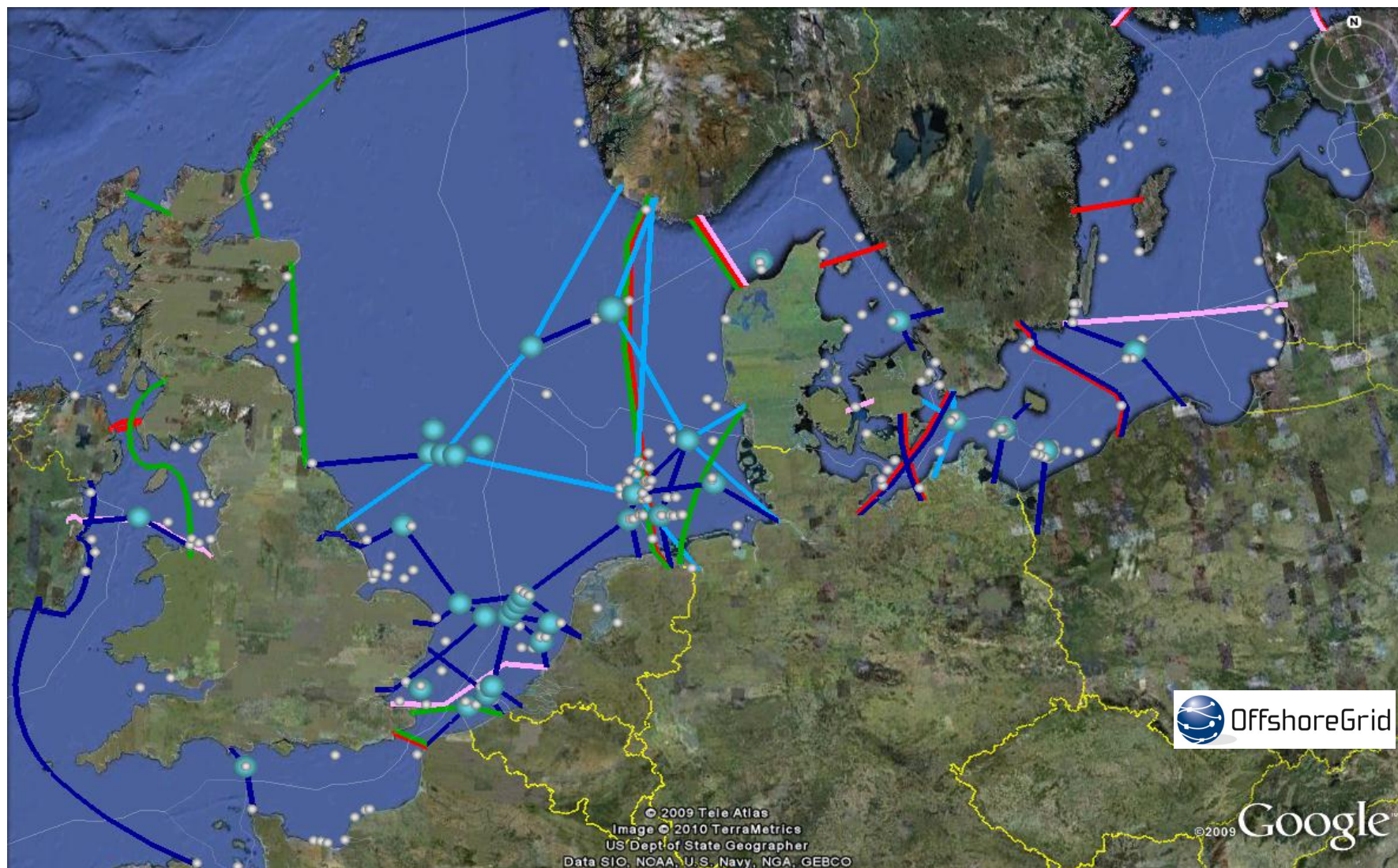


Onshore: 196602
Offshore: 43093
 Total: 239695



Onshore: 267047
Offshore: 125787
 Total: 392824

unthinkable without market harmonisation



Characteristics of a “GREEN SUPER MARKET”

- large geographical area for lower variability, higher predictability and higher capacity value
- Sufficient internal network capacity providing access to distributed generation and balancing resources and enabling the aggregation of dispersed wind power.
- Operating close to real time for low uncertainty and low additional balancing costs.
- Availability of a multitude of balancing resources
- Availability of responsive demand and storage.

TradeWind conclusions

- Significant effects of wind power on cross-border flows and congestions after 2015,
- Reinforcing the 42 identified interconnectors will bring high value (=reduction of operational cost of generation) for enabling 300 GW
- A dedicated meshed offshore grid has significant economic value (combining trade and connection)
- Economic benefits of faster and larger market are significant: intraday rescheduling of reserves (250 M€/year) and of power exchange (1-2 Billion €/year)

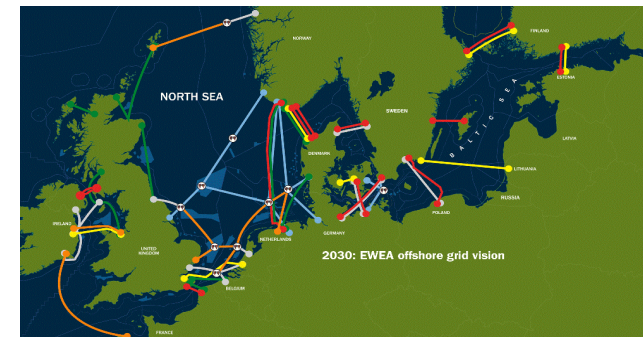


TradeWind

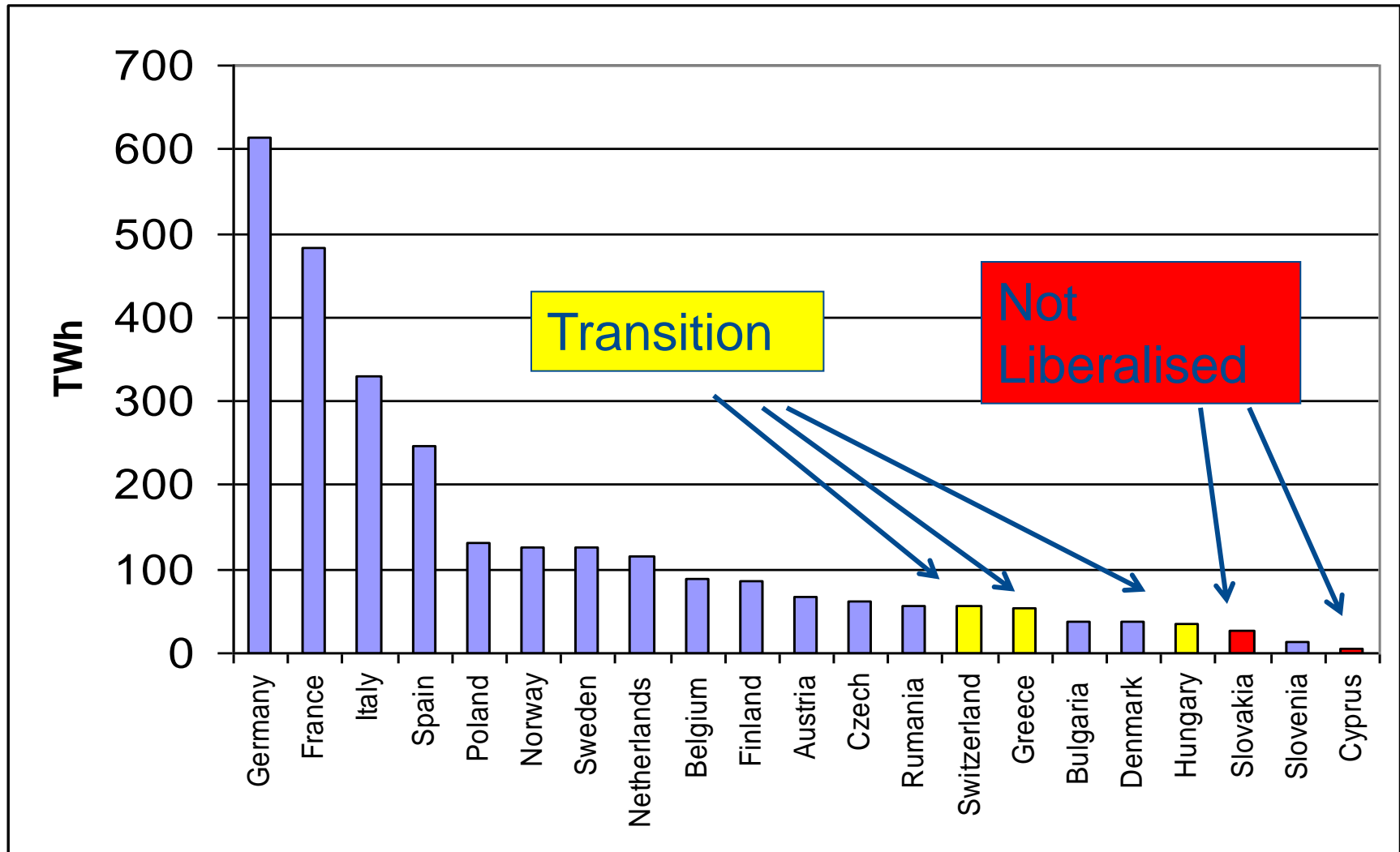


Integrating Wind

Developing Europe's power market
for the large-scale integration of wind power



Situation today: multitude of (mostly liberalised) markets

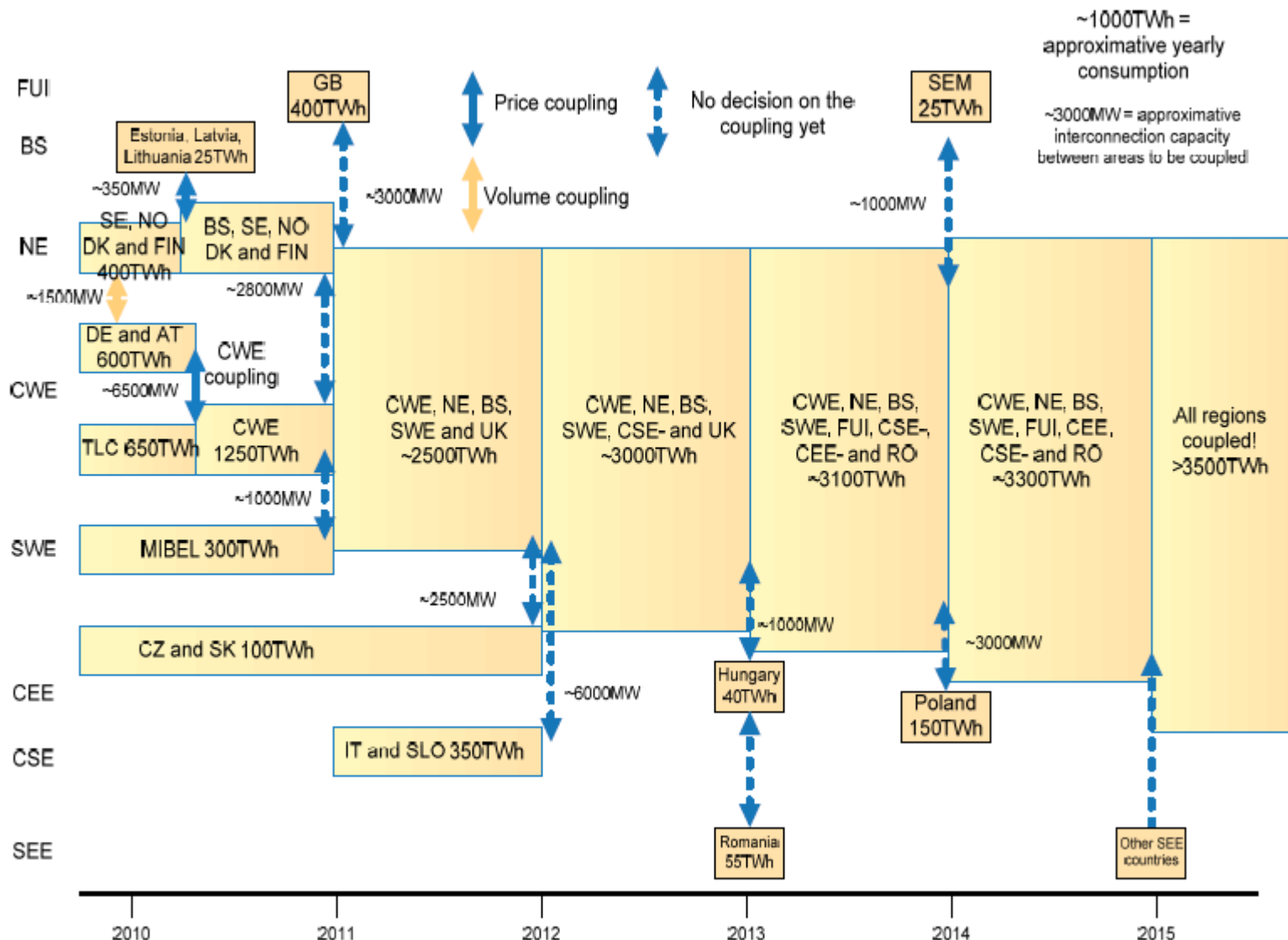


Concrete steps towards regional markets

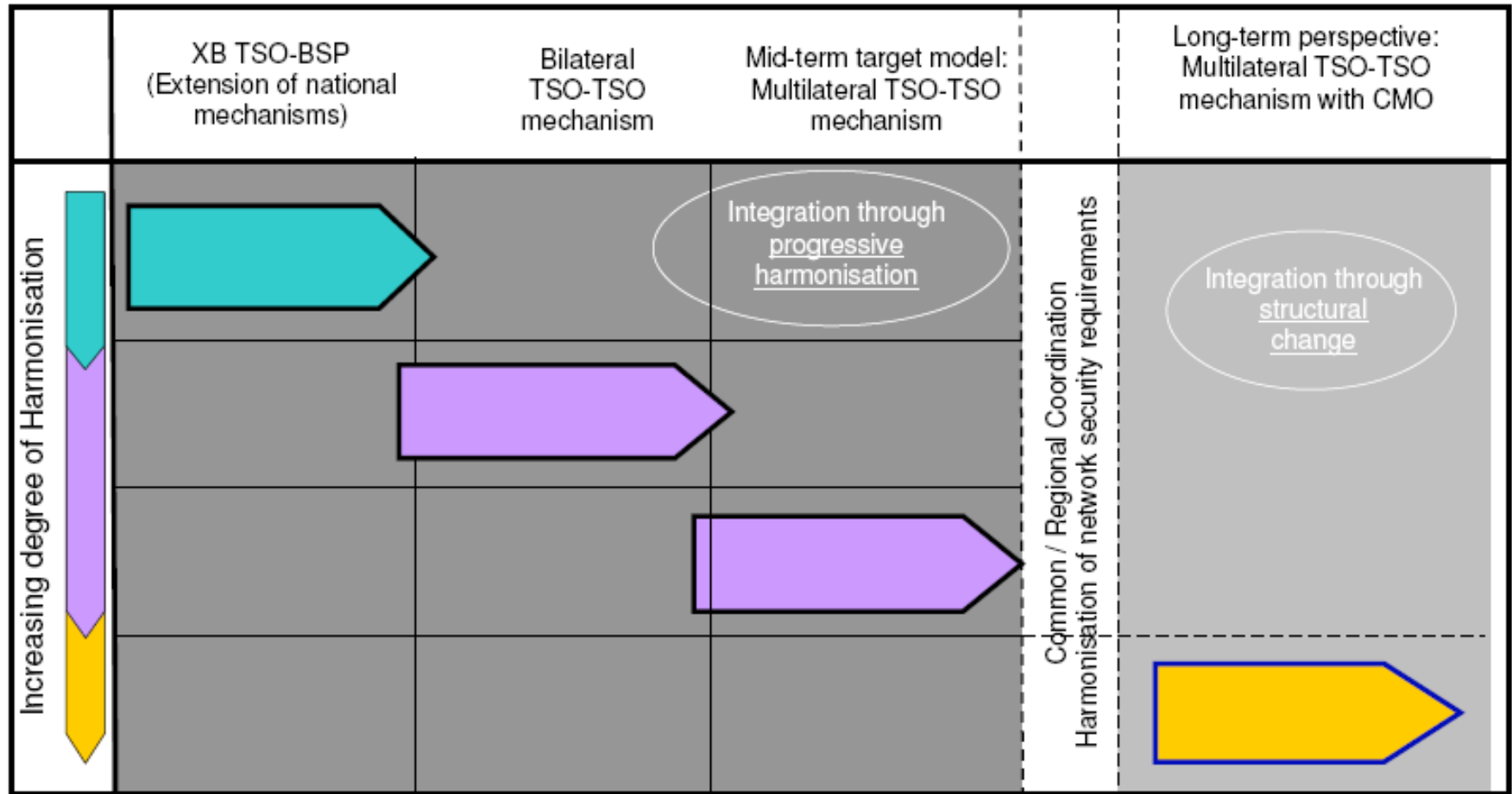
- NordPool market + Germany partly joining up
- Penta-lateral market coupling between Benelux, France and Germany.
- North Seas Countries' Offshore Grid Initiative"
- Irish All-Island market
- Iberian MIBEL.



Possible sequence of European market coupling



Proposed Roadmap for the Cross-Border Integration of Electricity Balancing Markets



Legend: XB = cross-border
 BSP = Balance Service Provider
 CMO = Common Merit Order

PCG Report to the XVIIth Florence Forum
 10&11 December 2009, Rome

Two main dimensions of the 3rd Package:

1. Institutional elements
 2. Cross-border elements
- 3rd Package text outlines institutions and regulatory tools such as Framework Guidelines and Network Codes

Institutional dimension of 3rd package

creation of two new European bodies:

- **ENTSO-E (European Network of TSOs for Electricity):**
fully operational since July 09, representing 42 TSOs from 34 countries

Purpose:

- To develop network codes: binding rules for TSOs and grid users
- Pan-European 10-Year Network Development Plan

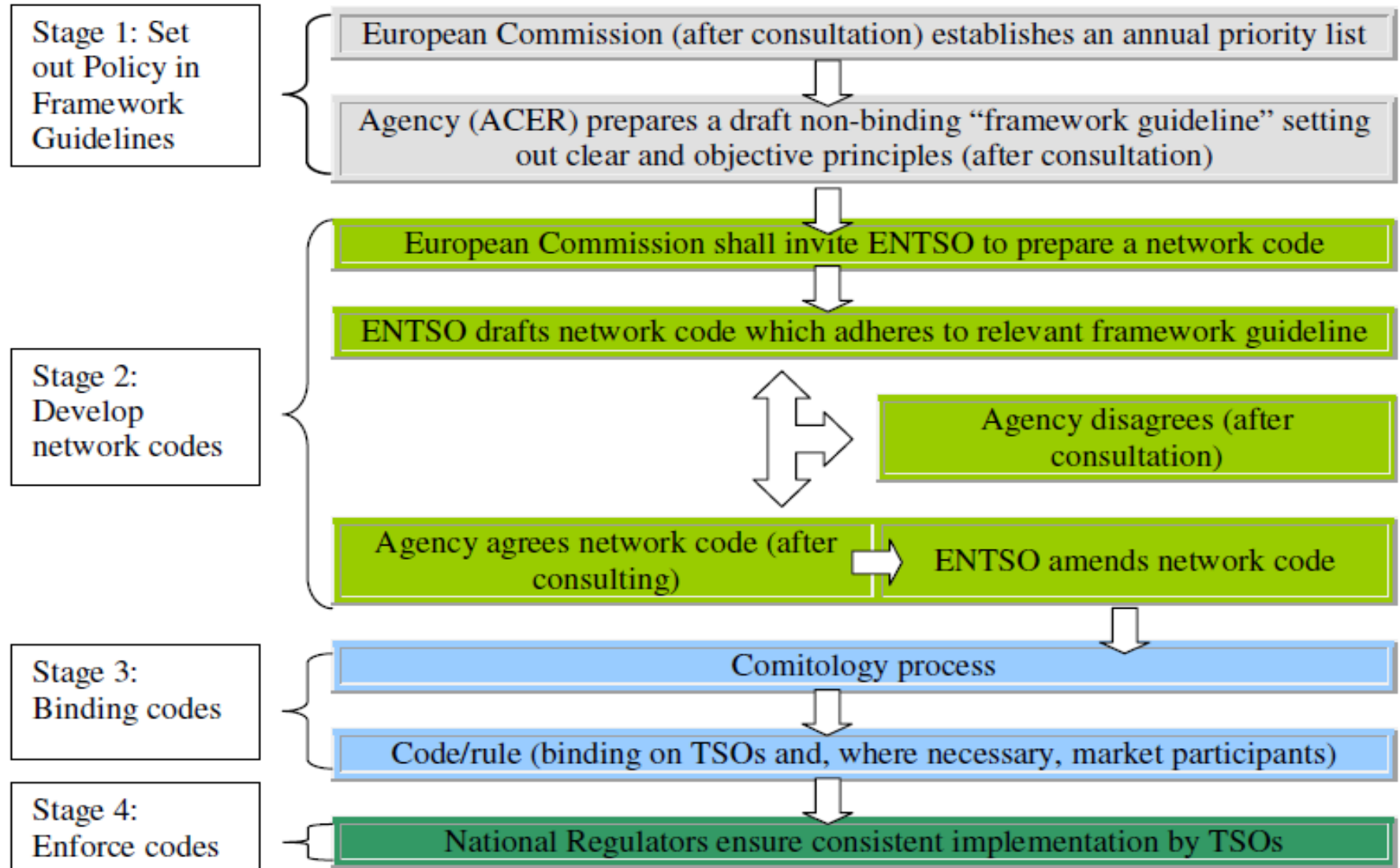
- **ACER (Agency for the Cooperation of Energy Regulators):** EU-funded Community Body, will be fully operational in 2011

Purpose:

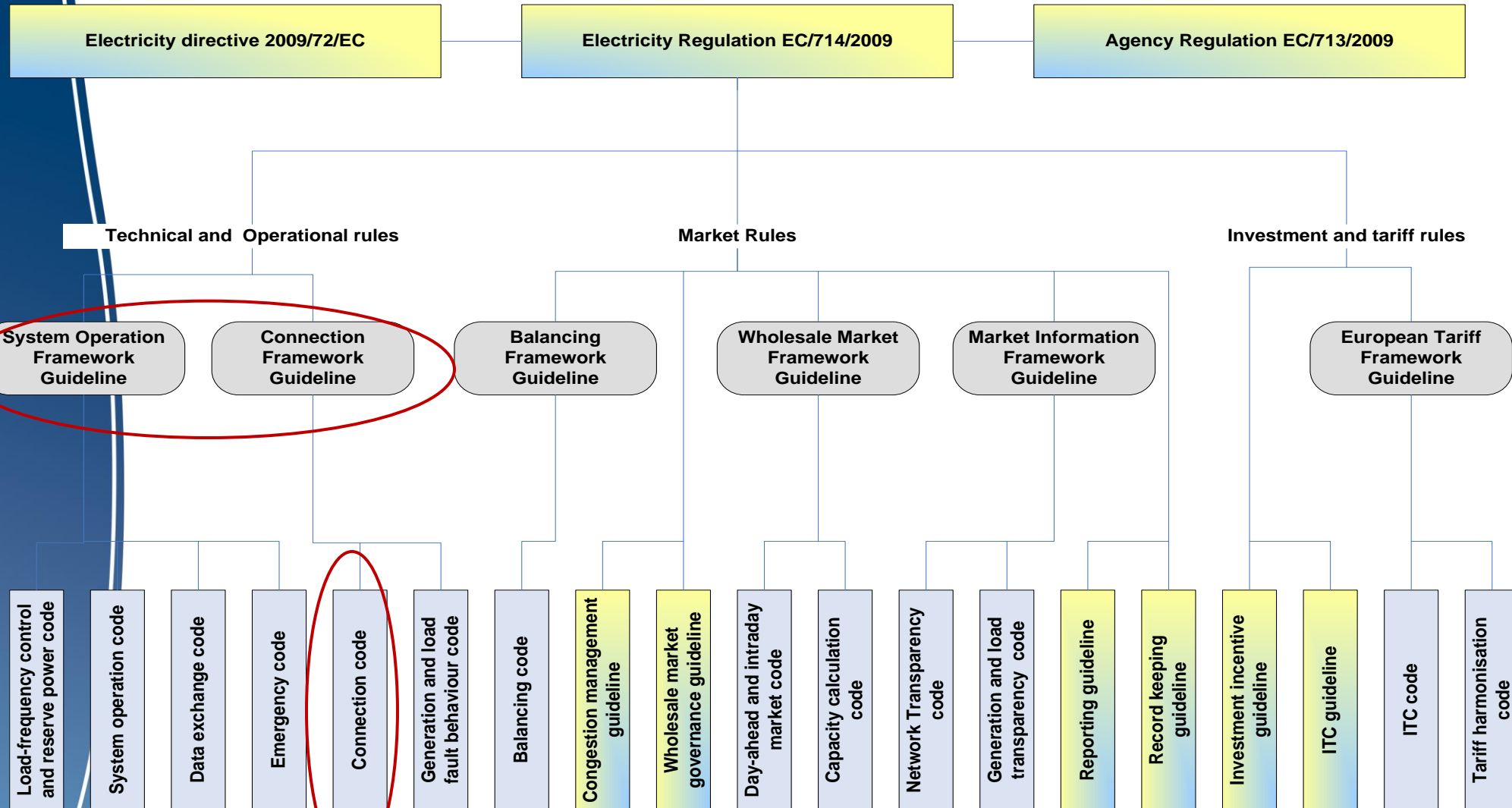
- To provide a framework for the cooperation of NRAs
- To complement NRA actions at EU level

Cross-border Dimension

The development of EU network codes:



Outline of Rules for Electricity – EC Priority list



Pilot Code for wind generation connection

- A common ENTSO-E and ERGEG initiative supported by the Florence Forum
- Testing the process of framework guidelines and code drafting and the associated consultations even before establishment of the European regulators agency ACER
- Pilot for the development of a Single Code at European level for network connection
- Provides an opportunity to realise the objective of the European wind power industry: a harmonised European Grid Code
- EWEA WG GCR drafted a proposal for structural harmonisation of grid codes (Generic Grid Code Format)

Wrapping up

- Market integration and intra-day markets for balancing and cross border trade are of key importance for the market efficiency and bring high macro-economic benefits, in the order of 1-2 Billion per year (TradeWind)
- roadmap for the integration of electricity markets across Europe (by 2015) to ensure the conversion of all regional markets into one single European market.
- suitable building blocks already exist and in the making (for example North Sea Countries Grid Initiative)
- EU 3rd Package provides adequate means to establish market rules suited for the integration wind power on a level playing field with other forms of generation.



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Thank you very much for your attention

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