

# **General presentation on ENTSO-E, Ten Year Network Development Plan, Regional Investment Plan and their role in the EIP**

Mihai PAUN  
Network Development  
ENTSO-E

Regional Group North Sea Workshop

Brussels, 15 December 2011

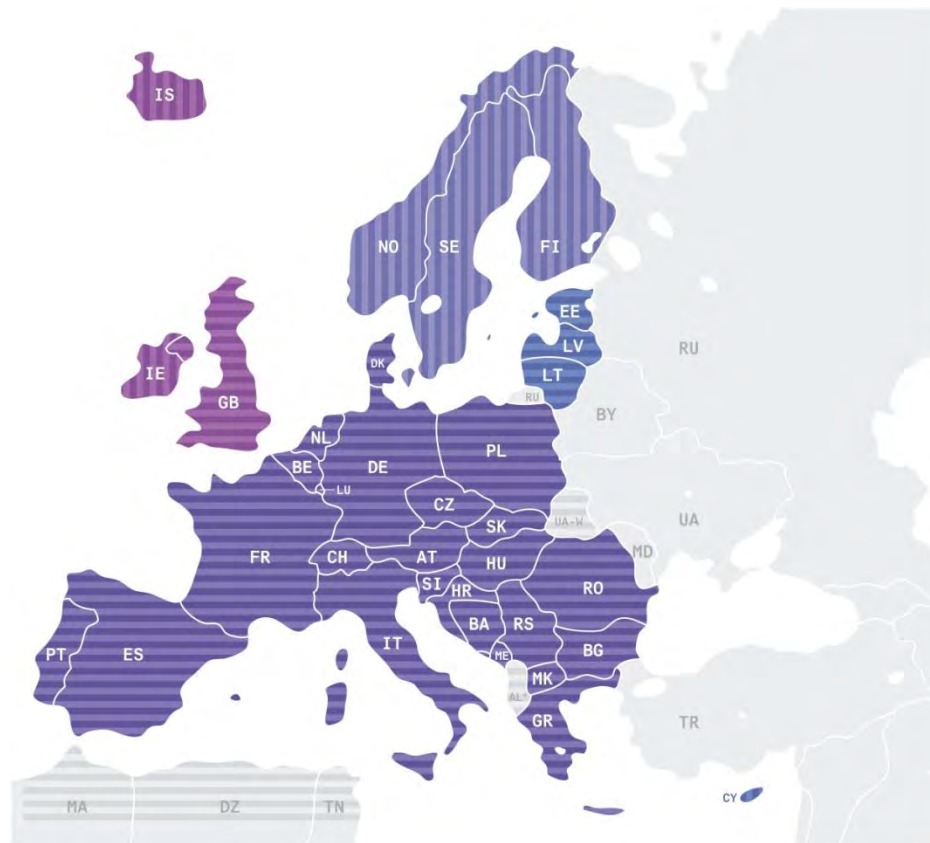


Reliable Sustainable Connected

# ENTSO-E: a trans-European network



- Fully operational since **July 2009**
- Represents **41** TSOs from **34** countries
  - **525** million citizens served
  - **828** GW generation
  - **305,000** Km of transition lines managed by the TSOs
  - **3,400** TWh/year demand
  - **400** TWh/year exchanges
- Replaces former TSO organisations: ATSOI, BALTSO, ETSO, NORDEL, UCTE, UKTSOA



# ENTSO-E has significant role in delivering European energy and climate change objectives

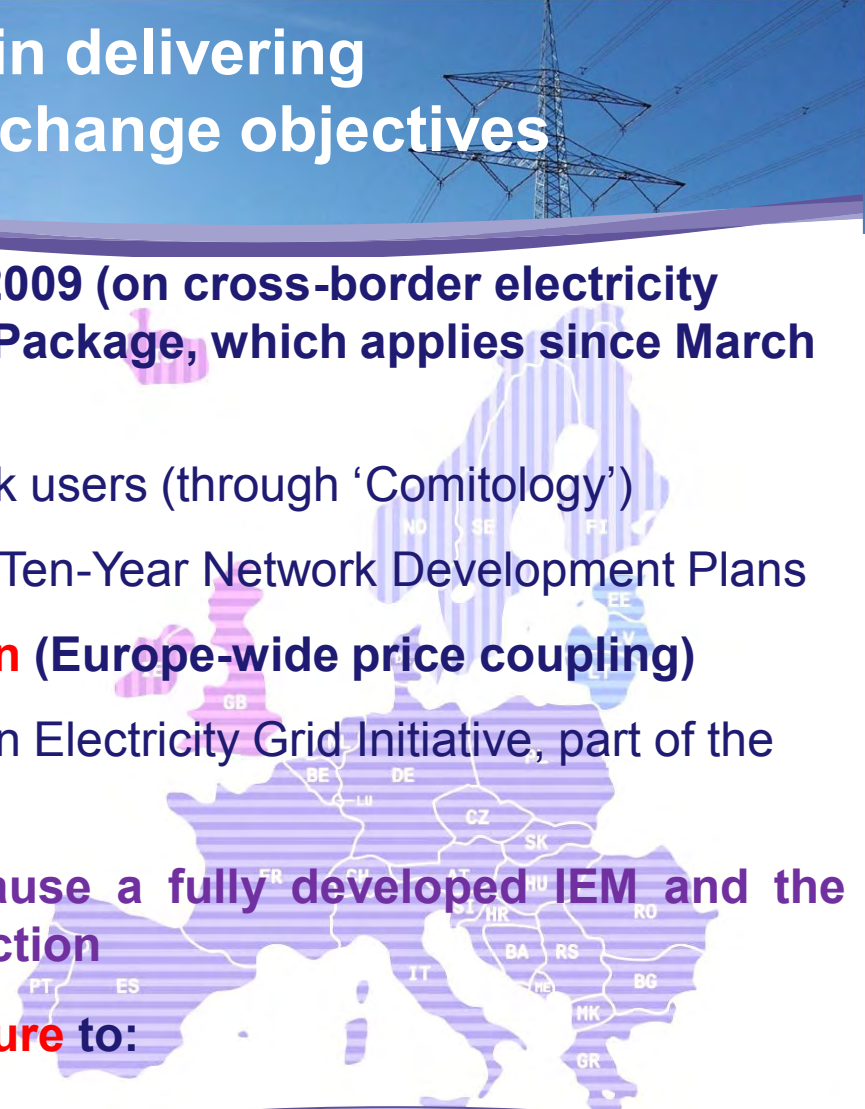
**Key activities set out in EU Regulation 714/2009 (on cross-border electricity trade, part of the 3<sup>rd</sup> Internal Energy Market Package, which applies since March 2011) assigned to ENTSO-E**

- Deliver **network codes** binding to all network users (through 'Comitology')
- Deliver **network plans**, European / regional Ten-Year Network Development Plans
- Deliver crucial aspects of **market integration** (Europe-wide price coupling)
- **R&D Plan** (fully included in EEGI – European Electricity Grid Initiative, part of the SET Plan)

**ENTSO-E operational much earlier because a fully developed IEM and the integration of RES demand urgent TSO action**

**Through its members deliver the infrastructure to:**

- enable markets to function
- secure energy supply
- meet climate change objectives - connecting RES

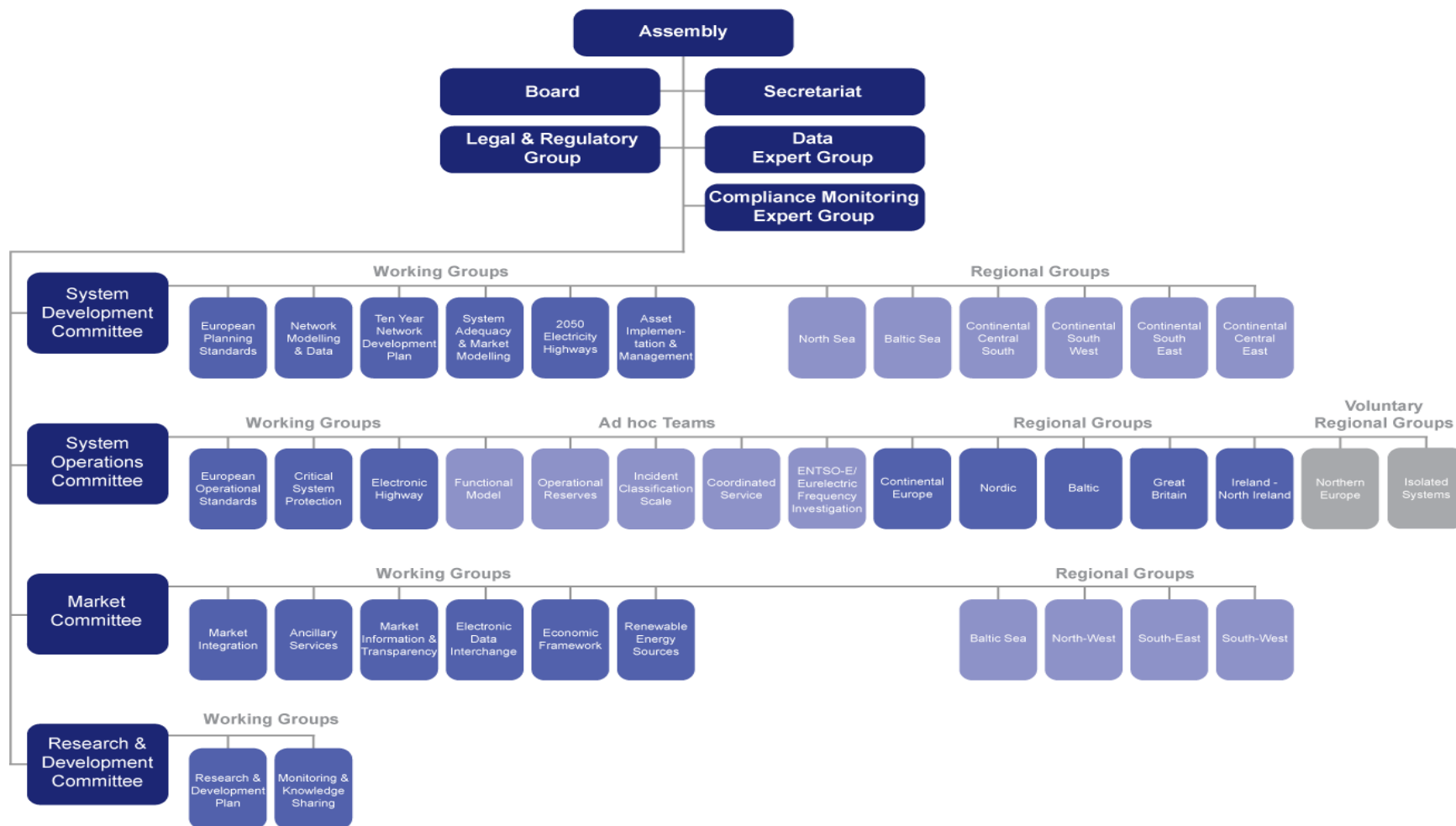


**41 TSOs from 34 countries**

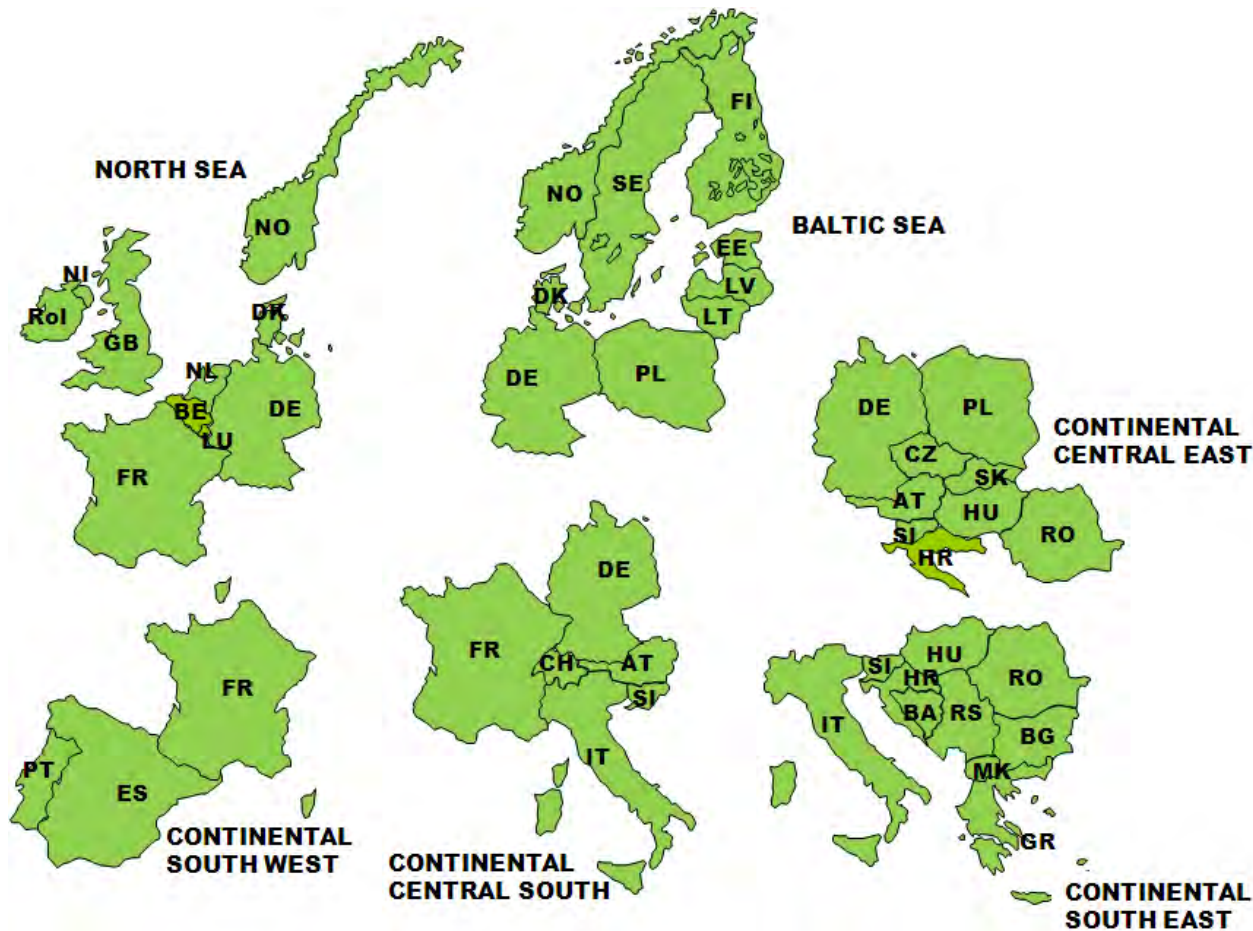


# ENTSO-E structure reflects the tasks given to ENTSO-E under the 3<sup>rd</sup> Energy Package

## ENTSO-E organizational structure



# ENTSOE Regional Groups



The most appropriate framework for grid development in Europe

Every RG gather countries sharing the same common concerns

Overlapping, in order to ensure overall consistency

# European transmission grid – key role in reaching the EU policy goals

## Energy policy goals

- **Sustainability/GHG:**
  - More renewables, further from the loads
  - More heating and mobility with electricity
- **Competitiveness/market integration:**
  - More long-distance flows
- **Security of supply**
  - More optimal resources sharing

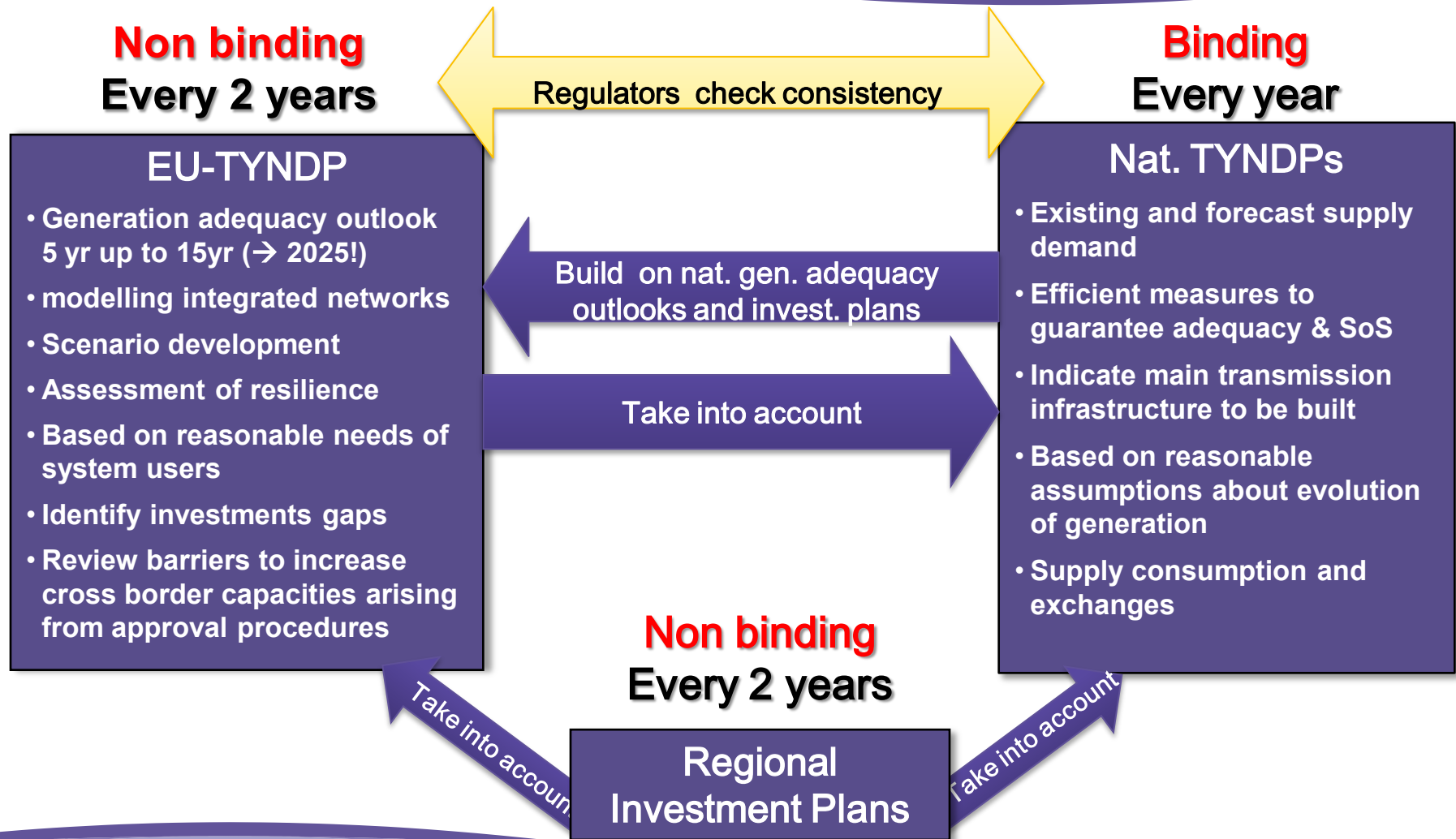
**all  
require  
Grid  
capacity !**

# Main drivers



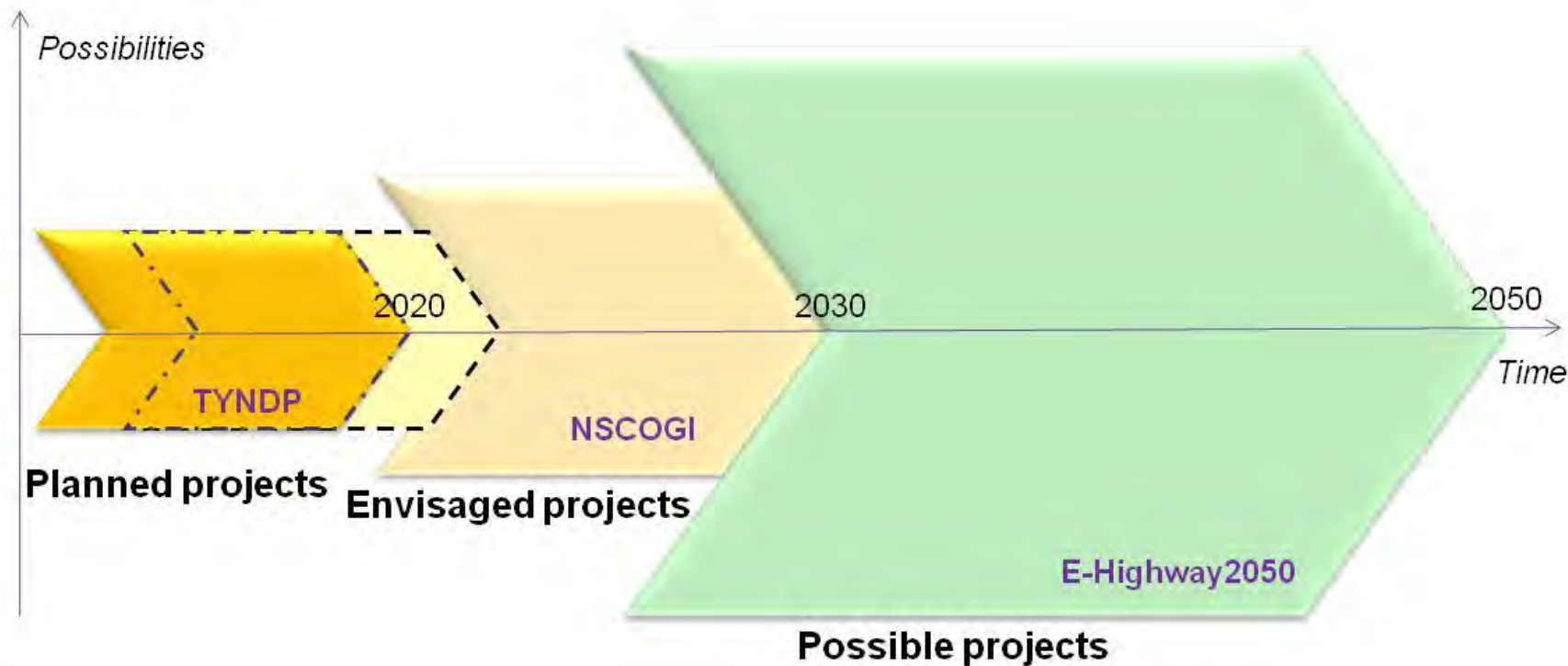
- **Massive integration of renewable energy sources across Europe**
- **Important East-West and North-South energy flows in South-East and Central-South regions**
- **Baltic States integration**
- **Connection of new conventional power plants**
- **Power supply of some large European cities and regions**

# The 3rd Package defines the TYNDP





# ENTSO-E strategy on electricity infrastructure Projects up to 2050



↑  
TSOs Plan  
EU Policies

↑  
2050 Energy Pathways (*National analysis*)  
FP7 Projects (*Susplan, Realisegrid, Twenties, Optimate, .....*)  
....

# Towards TYNDP 2012



- **Pilot TYNDP based on a bottom up approach given time constraints**
- **Main differences with EU 20/20/20 scenario rely in RES objectives, especially in North Sea**
- **However all the projects are necessary to meet 20/20/20 objectives**
- **Main improvements for TYNDP 2012**
  - Develop a top down scenario based on NREAP
  - Build a comprehensive **view of grid development in North Seas**

# Improvements for TYNDP 2012 package

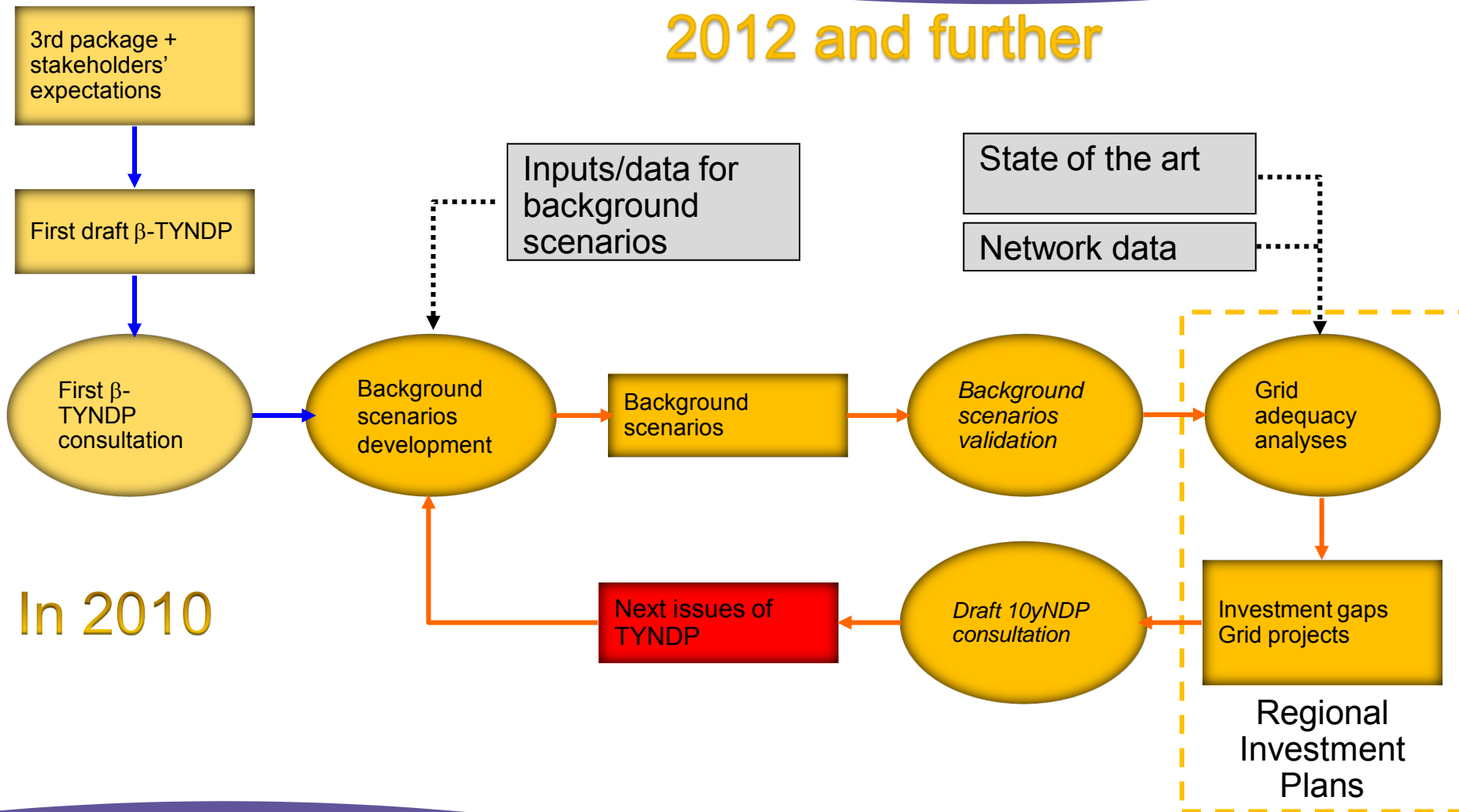


- **Explicit definition of projects of pan-European significance**
- **Public procedure for the inclusion of 3<sup>rd</sup> party projects**
- **More scenarios : top down + bottom up scenarios + Nuclear phase-out sensitivity analysis**
- **Regional market & network studies – based on the common set of data**
- **Project assessment based on a set of clear indicators**

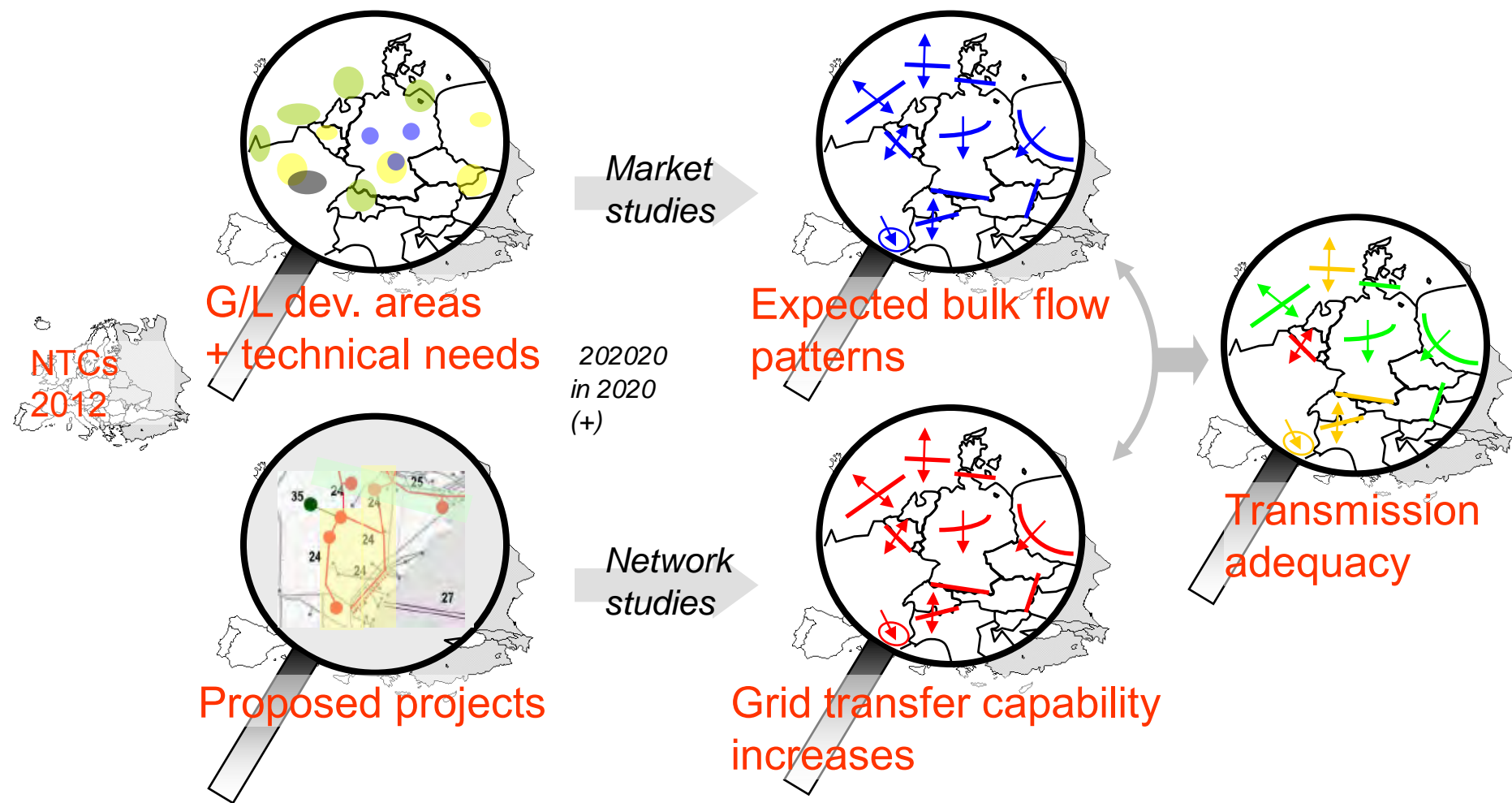
# RgIP & TYNDP 2012 elaboration process



## 2012 and further









- **Scenario outlook & adequacy forecast report (SOAF)**
- **6x Regional Investment Plans reports**
  - Detailed grid development issues, reg. level
- **10-year Network Development Plan report**
  - Synthetic compilation, pan-European level

# Overall schedule TYNDP 2012

