



21st April 2010

World Energy Dialogue 2010

Baltic Energy Market Interconnection Plan

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entsoe

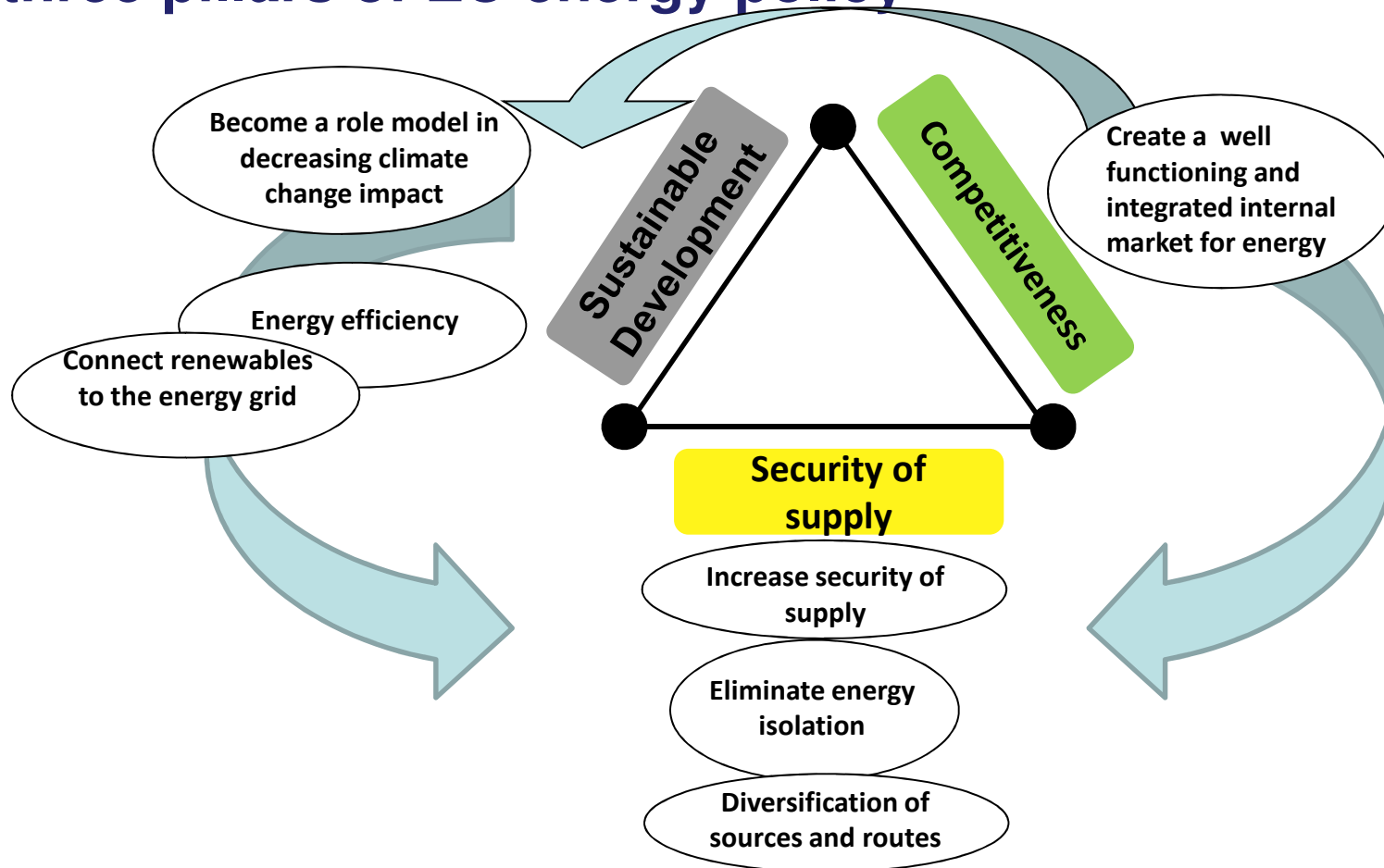


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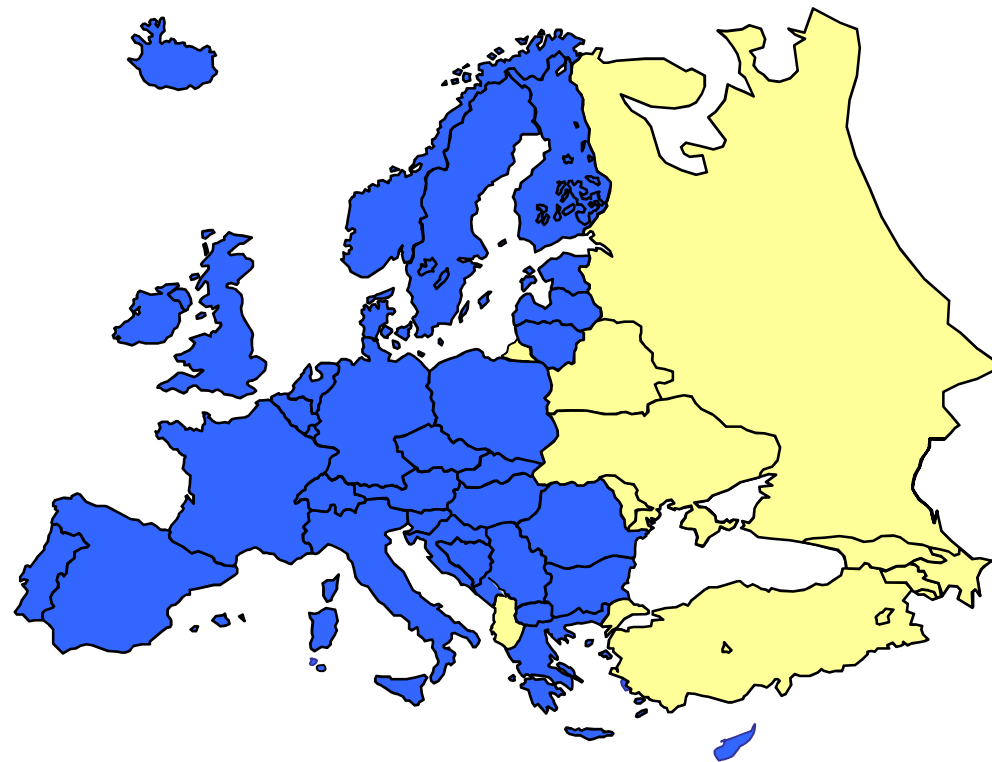
The three pillars of EU energy policy



Europe has agreed a forward-looking political agenda to achieve its core energy objectives of sustainability, competitiveness and security of supply.

ENTSO-E

- Founded in December 2008 and fully operational since 1 July 2009
- Represents 42 TSOs from 34 countries
 - **525** million citizens served
 - **828** GW generation
 - **305,000** km of transmission 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 Background: 3rd IEM package

- **Proposed amended Regulation (EC) No 1228/2003 on conditions for access to the network for cross-border exchanges in electricity**
- Article 4: European network of transmission system operators for electricity
 - **Completion and functioning** of the internal market in electricity and cross-border trade
 - **Optimal management, coordinated operation and sound technical evolution** of the European electricity transmission network
- Article 6: Establishment of network codes
- Article 8: Tasks of the ENTSO for Electricity
 - **Network codes**
 - **Common network operation tools**
 - **Non-binding Community-wide 10-year network development plan**, including a European generation adequacy outlook, every two years
 - Work programme, annual report, **summer/winter outlooks**, monitoring



Baltic Energy Market Interconnection Plan - BEMIP

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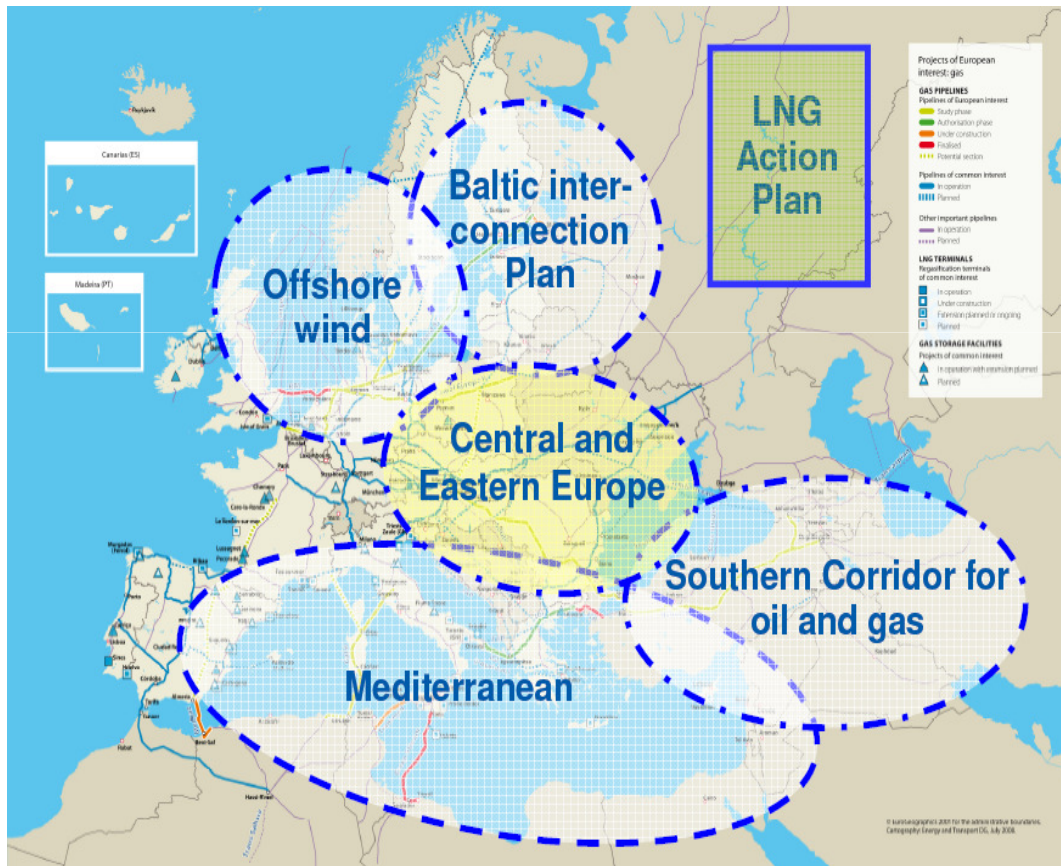
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BEMIP - Baltic Energy Market Interconnection Plan

- 2008 Initiator European Commission President J. M. Barroso – EC
- 2009 Set a High Level Group
- June 2009 release of Baltic Energy Market Interconnection Plan
- 17 June 2009 signed the Memorandum of Understanding on the BEMIP by its 9 members

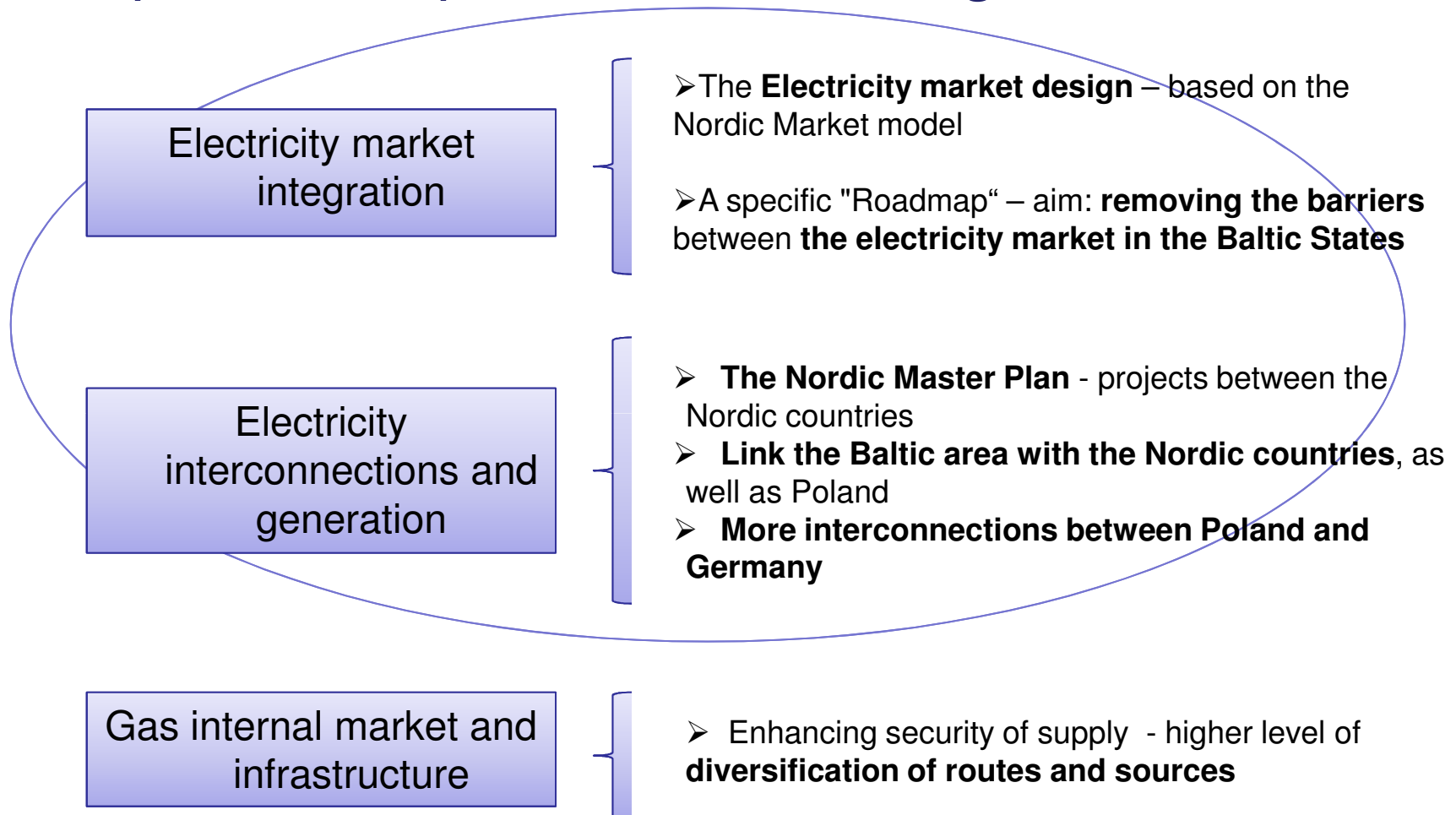


Energy infrastructure priorities



Effective interconnection of the Baltic Sea region was identified as one of the six energy infrastructure priority projects in the Second Strategic Energy Review adopted by the Commission in November 2008.

BEMIP (Action Plan) covers the following 3 areas:





BEMIP. Electricity market integration

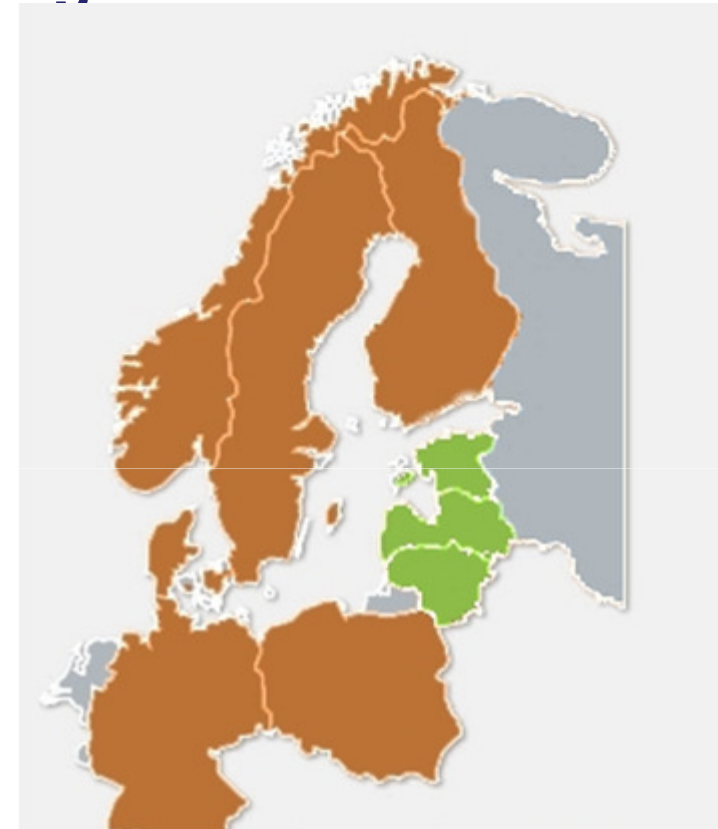
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Electricity Market integration

- Access to the consumer to choose freely whether to change electricity supplier
- Competition among power producers, importers and suppliers
- Abolish restrictions on the marketing power of the EU countries
- Conditions of the clear trading of electricity imported from outside EU
- Clear organization of the market and supervisory mechanisms under the Nord Pool practice



Integration of the regions (,Nord Pool+Lithuania, Latvia, Estonia, Poland, Holland)



Market peculiarities of the Baltic sea region countries

- Baltic SR countries have extensive access and trade with non-EU countries.
- In order to establish Common Baltic electricity market the following issues should be addressed:
 - congestion management mechanism
 - transit compensation mechanism
 - common position for trading with non-EU countries
 - other issues.



Vision and Baltic Market design by 2015

Creation of Pan-Baltic harmonized single electricity market integrated with Nordic market and further on with Central and Eastern European markets.

Baltic market integrated into Nordic market through Nord Pool and Baltic Nordic interconnections infrastructure during 2009-2015.

Electricity market design – based on the Nordic Market model

Target: Baltic market design is consistent with the key elements of the Nordic market design

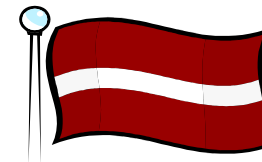
Future market design at the common Baltic electricity market:

- Nord Pool Spot Baltic with three bidding areas
- Implicit auction between Baltic SR countries and towards Nordic Countries
- Transparency according to the ERGEG's North European Electricity Regional Initiative

- Harmonized imbalance settlement and imbalance pricing
- Common reserves and balancing power market

- Harmonized network tariffs for generators - structure and level
- Estonia, Latvia, Lithuania and Finland have a common position and trading principles towards non EEA third countries

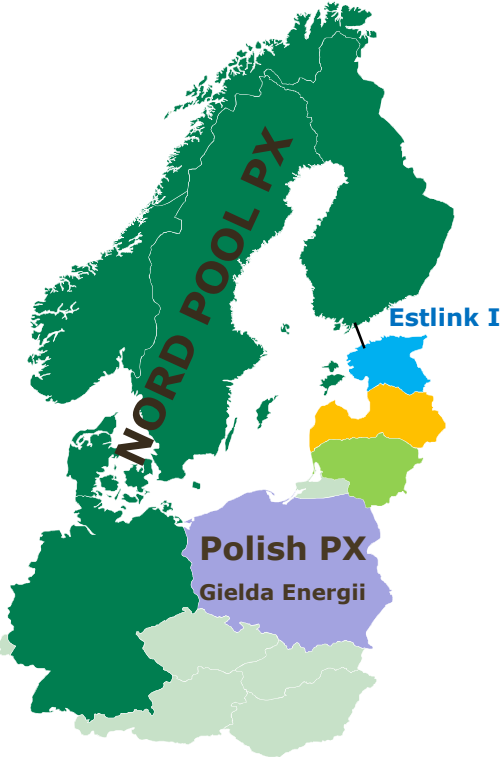
- Baltic retail market
- Market place financial trade



Market establishment stages

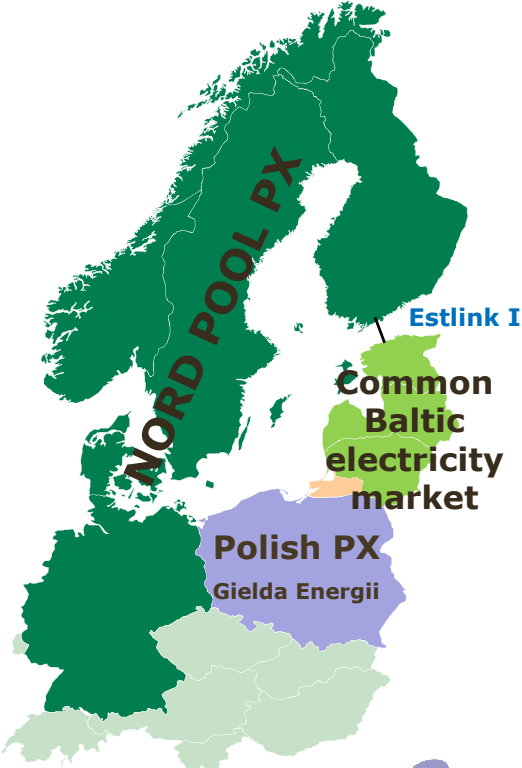
2009

Isolated Baltic electricity market



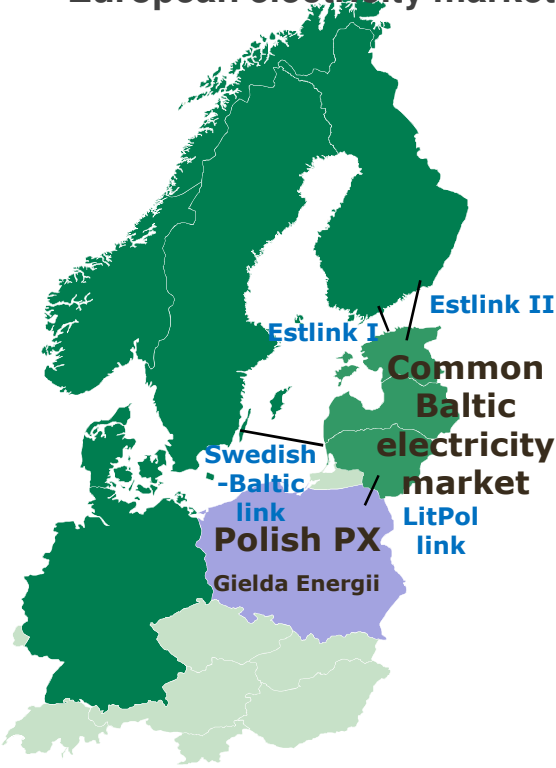
2010-2013

The single market of Baltic States



2014 - 2015

Integration of the Baltic States electricity market in the Nordic and continental European electricity markets



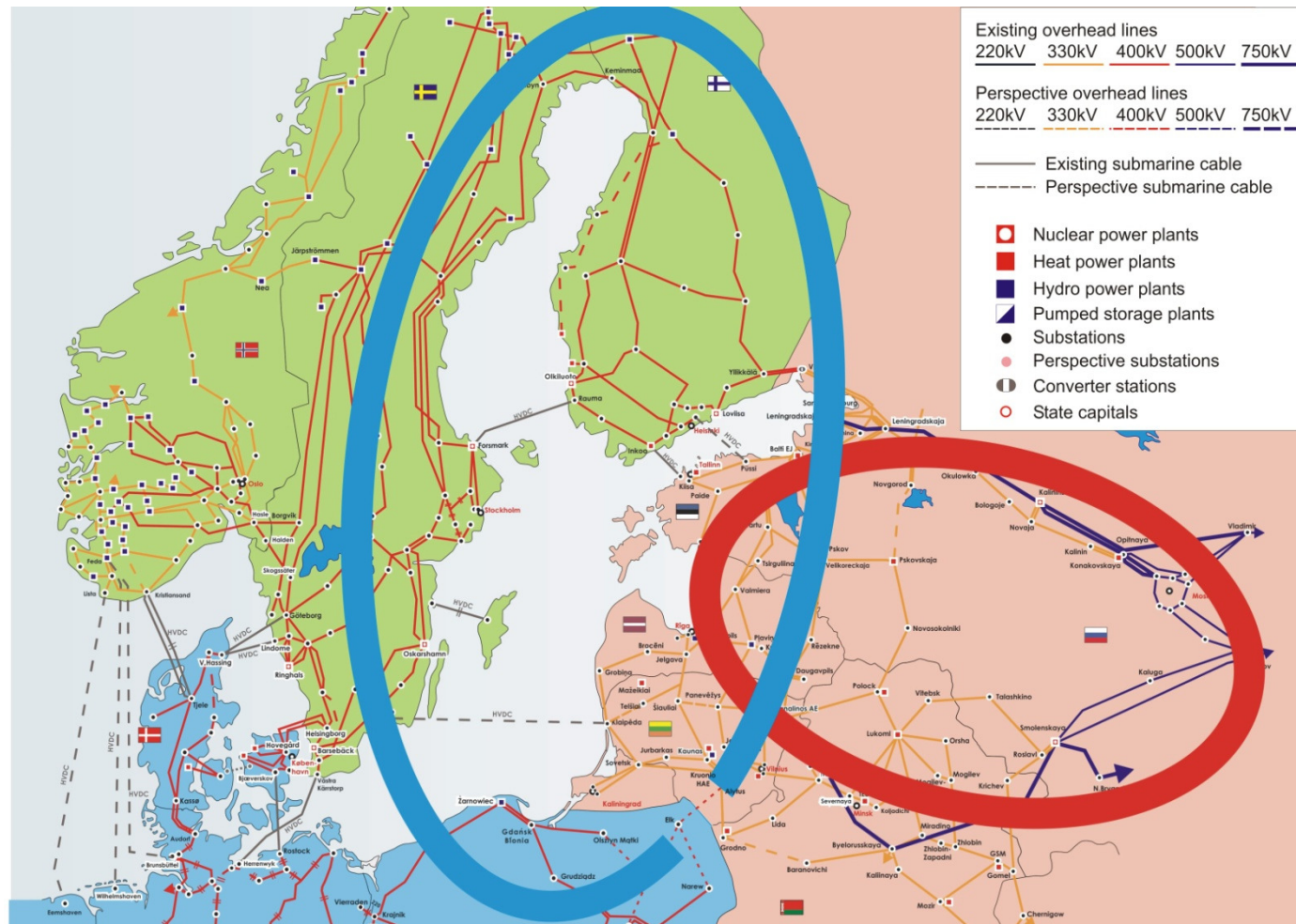


BEMIP.

Electricity interconnections and generation

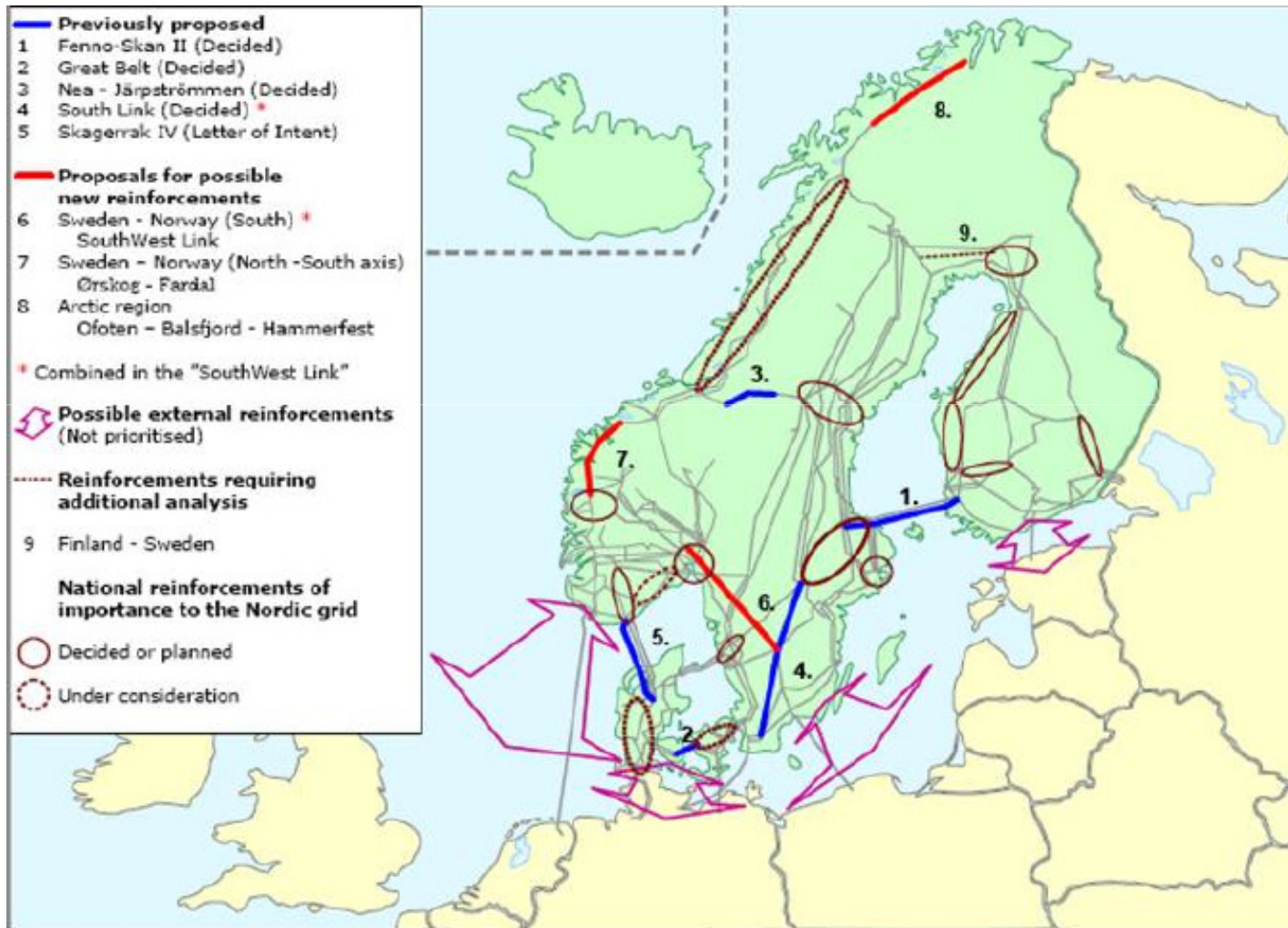
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Integration to the European markets



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Nordic Master Plan projects

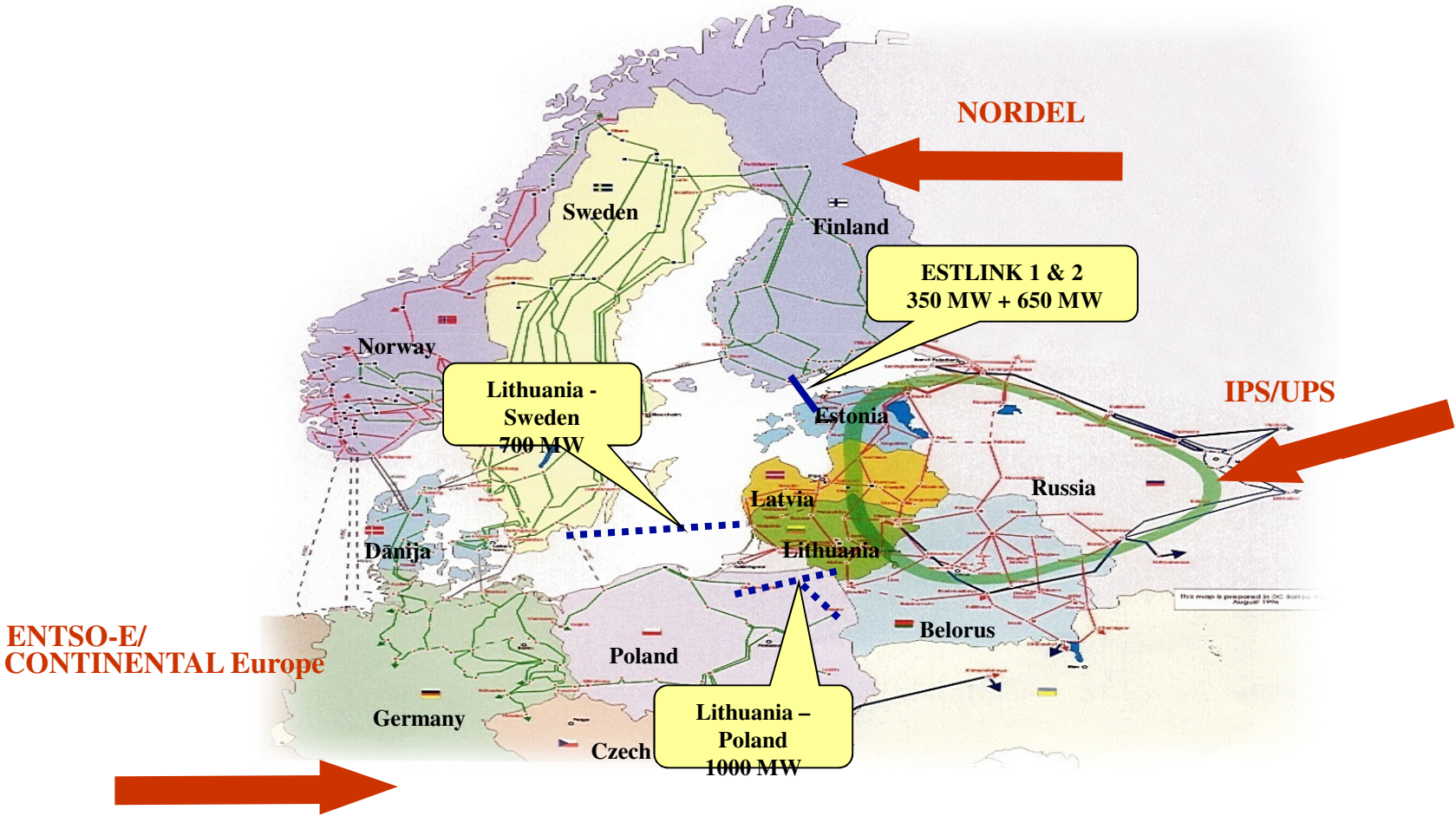


Interconnections between Poland and neighboring countries



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Interconnections in the Baltic area





BEMIP and TYNDP – investments

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Background for TYNDP

TYNDP is a forward-looking (5 – 15 years) plan for electricity transmission infrastructure investments, updated every 2 years

Mandate for TYNDP is given to ENTSO-E by 3rd Legislative Energy Package (Reg. 714/2009, Art 8.3)

Objectives:

- raising transparency of electricity transmission grid
- support decision-making process at regional & European level



TYNDP relevance for EU energy policy

TYNDP contributes to:

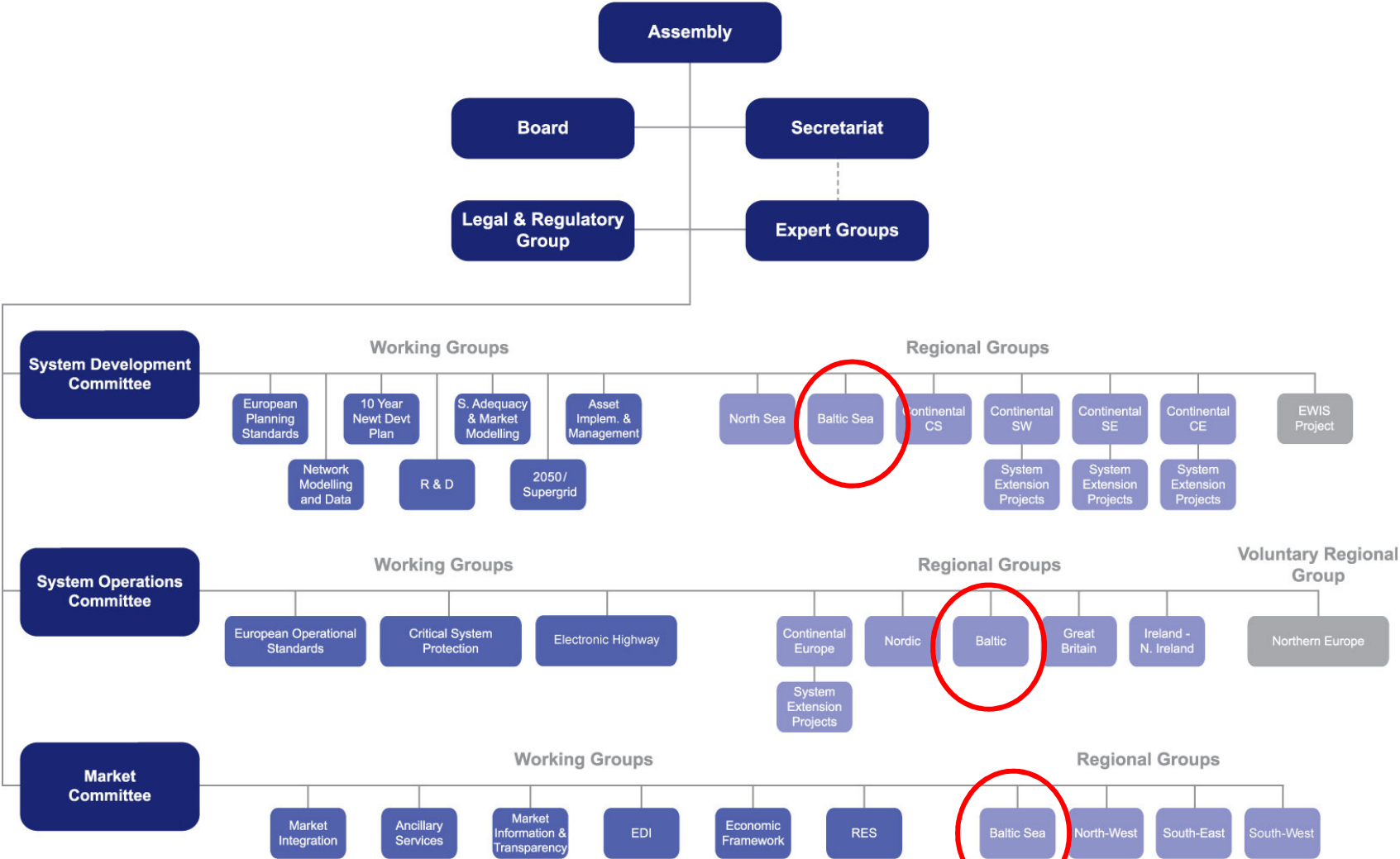
1. achieving the EU goal of increasing the use of *renewable energy* to 20% of total energy consumption (today 8.5%)
 2. Further enabling free trade (i.e. helping develop the IEM) by reducing transmission congestion
 3. Ensuring security of supply and system reliability for more than 525 million European citizens
- TYNDP is the most accurate and up-to-date European-wide reference to the transmission infrastructure



RG Baltic Sea – TYNDP determined 7 clusters of investment needs

1. Demand growth
2. Future generation evacuation
3. Generation decommissioning
4. Insufficient transmission capacities
5. Change in exchange patterns
6. Isolated systems to be connected
7. Aging/obsolescence of the network equipment

ENTSO-E organizational structure



RG Baltic Sea

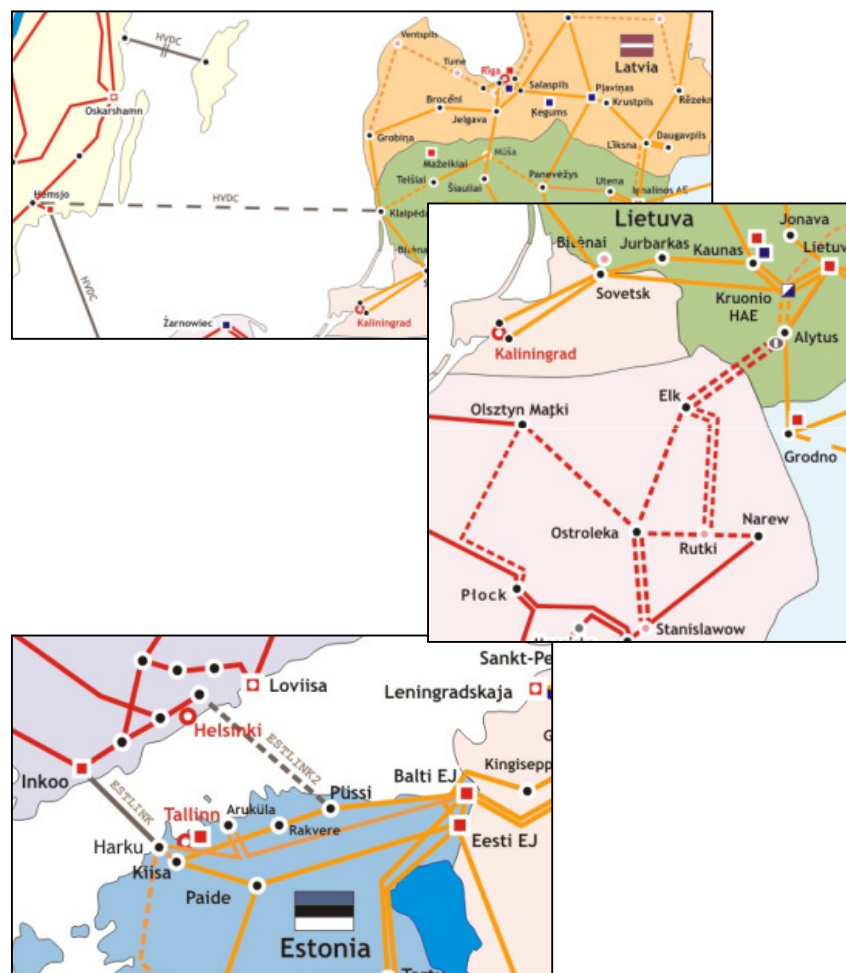
Development of a coordinated extension plan of interconnections between the Baltic States & Poland and Baltic States & Nordic area.

Long-term drivers:

- ✓ RES integration,
- ✓ Continental interconnections and North-South reinforcements in Nordic, countries.

Focus

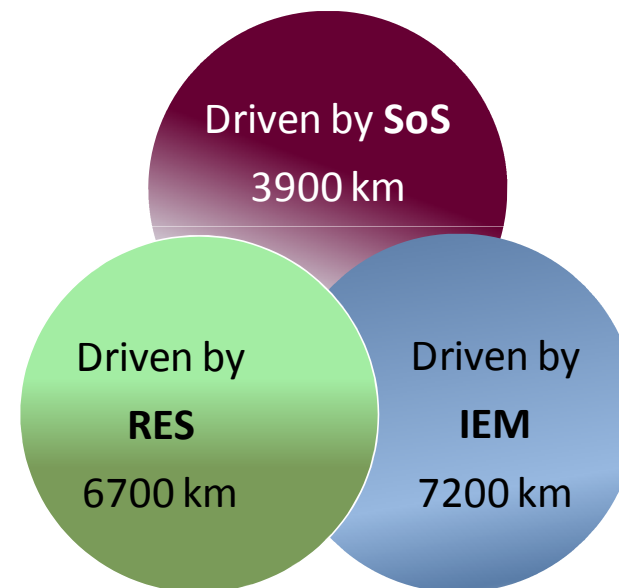
- ✓ Nordic Grid Master Plan 2008 (development of top-down scenario...)



Baltic Sea Group - projects of *European relevance*

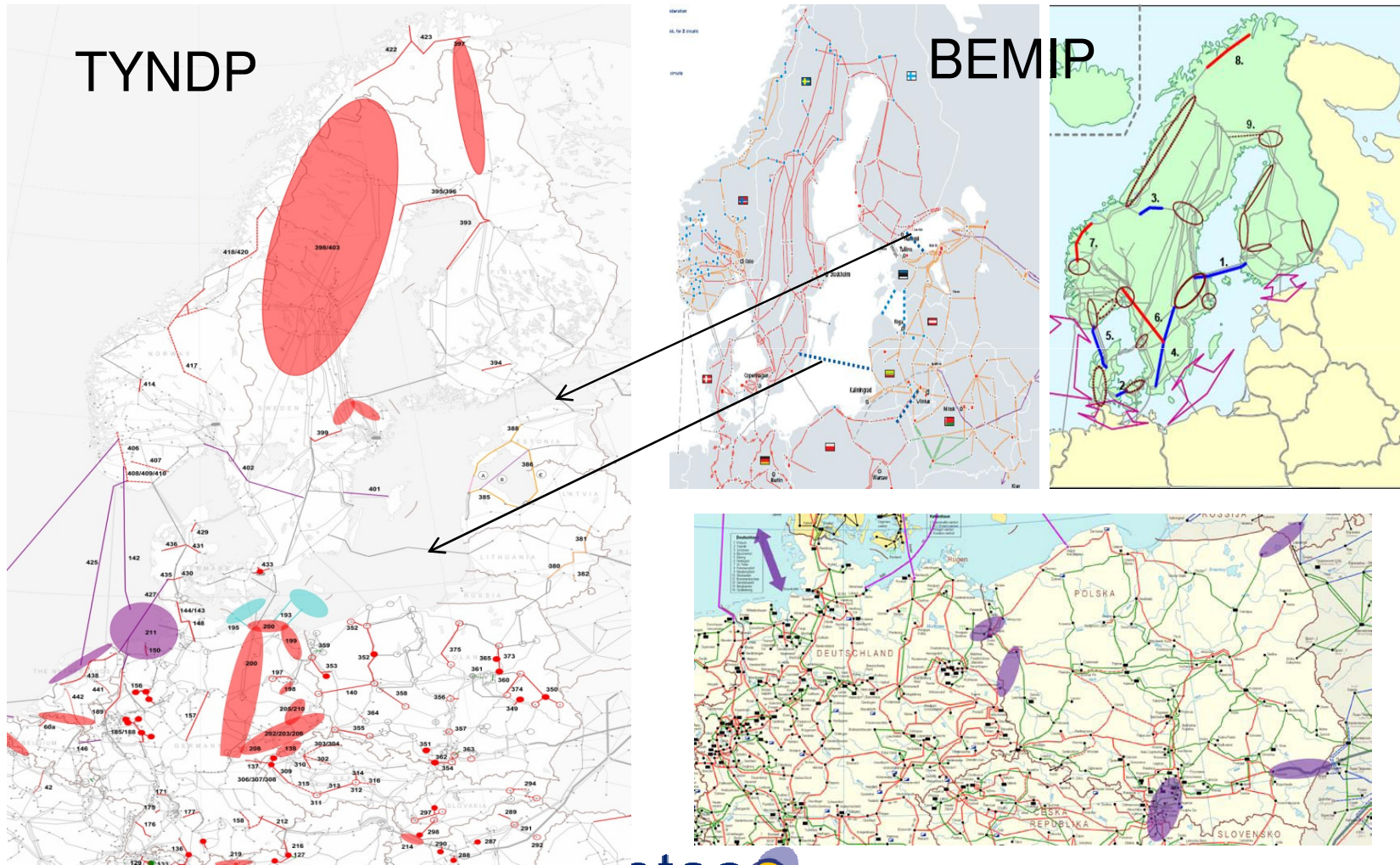
= answering at least one of the three pillars of EU energy policy

1. Security of Supply
2. Integration of **RES**
3. The completion of the **IEM**



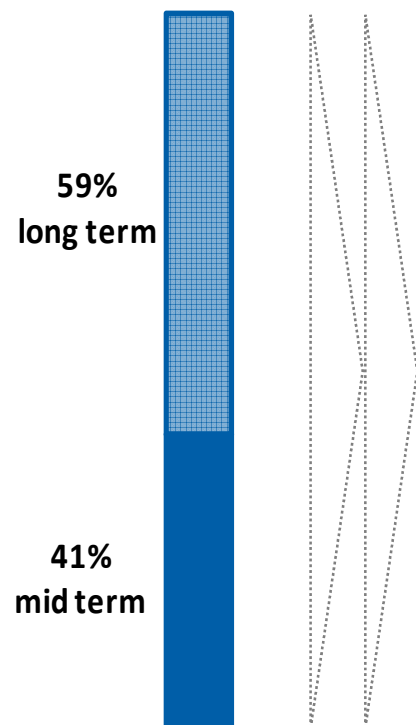
One project usually addresses several pillars at once

BEMIP projects in the TYNDP



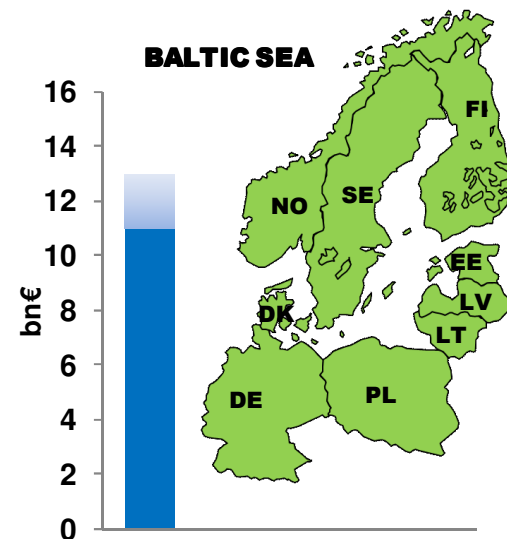
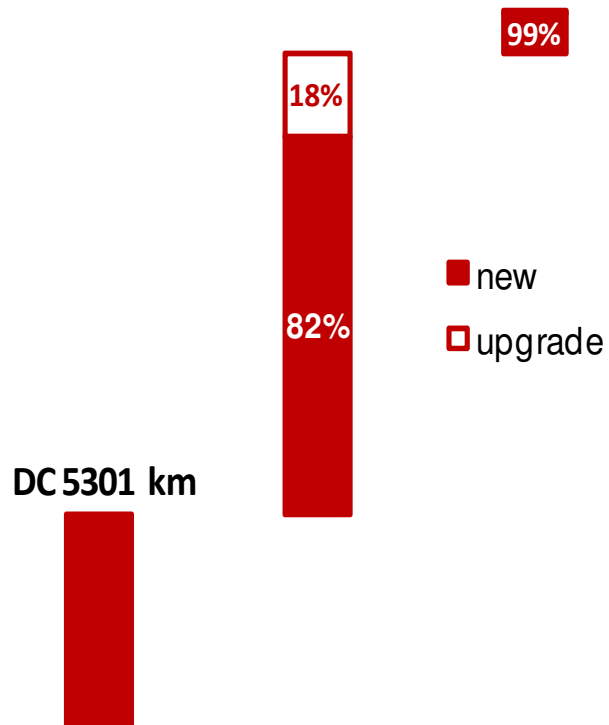
The Baltic Sea projects - statistics

Total projects BS
17846 km



AC > 300 kV
11591 km

AC < 300 kV
954 km





Conclusions

- High consistency between the TYNDP table of projects and the infrastructure projects listed by BEMIP.
- 3041 km of line upgrades and 14805 km of new lines
- Out of the total of 17846 km, 7317 km to be accomplished in the next 5 years,
- Over the next 5 years investment worth of 11-13€ billion
- ...in order to fulfill European Energy Policy targets
 - Security of Supply
 - Integration of RES
 - Market Integration



Thank you for your attention!



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