Baltic
InteGrid
Integrated Baltic Offshore
Wind Electricity Grid Development

Baltic InteGrid – What is the project about?

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energikontor sydost

EU STRATEGY FOR THE BALTIC SEA REGION FLAGSHIP

Interreg Baltic Sea Region

EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

- EU Project - *Interreg Baltic Sea Region* programme
- Subfield: Renewable energy
- Appointed Flagship project,
- Running until March 2019

Project Partners

- Institute for Climate Protection, Energy and Mobility (IKEM)
- Rostock Business and Technology Development GmbH
- Deutsche WindGuard
- German Offshore Wind Energy Foundation

- Technical University of Denmark
- Aarhus University

- University of Tartu

- Aalto University

- Latvian Association of Local and Regional Governments

- Coastal Research and Planning Institute

- Foundation for Sustainable Energy
- Maritime Institute in Gdańsk

- Energy Agency for Southeast Sweden
- Lund University

Associated Organisations

The AO's

Germany
- Siemens AG
- BMUB (Ministry for the Environment, Nature Conservation, Building and Nuclear Safety of Germany)
- Ministry of Energy, Infrastructure and State Development of Mecklenburg- Vorpommern
- 50Hertz Transmission GmbH
- Ecologic Institute
- Kisters AG
- Becker Büttner Held
- Eclareon

Denmark
- Danish Energy Association
- Energinet.dk
- Danish Wind Industry Association

Latvia
- Ministry of Economics

Finland
- Finnish Wind Power Association

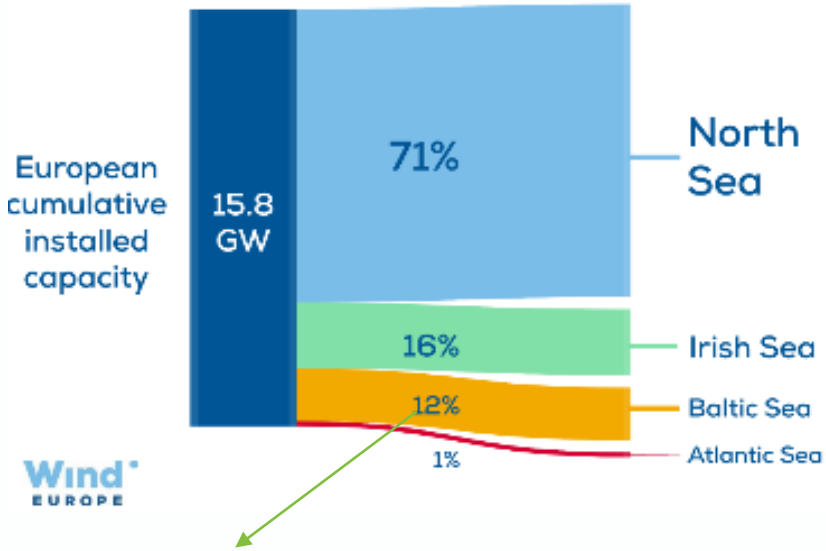
Estonia
- Elering-generating opportunities

Lithuania
- The Ministry of Energy
- Litgrid AB

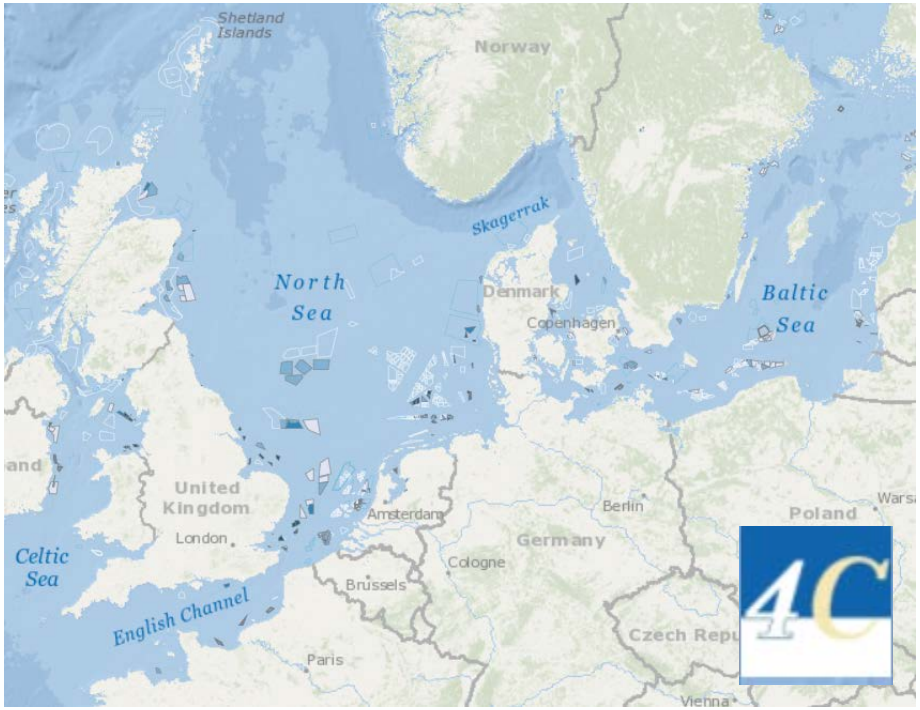
Poland
- Inwestycje Infrastrukturalne Sp. Z O.O
- Maritime Office in Gdynia
- PGE Energia Odnawialna S.A.
- Polish Offshore Industry Association
- PSE S.A. Polskie Sieci Elektroenergetyczne
- Baltex Energia i Górnictwo Morskie SA SKA

Baltic Sea Potential

Offshore Wind in Europe



Built / planned OWF



Baltic Sea

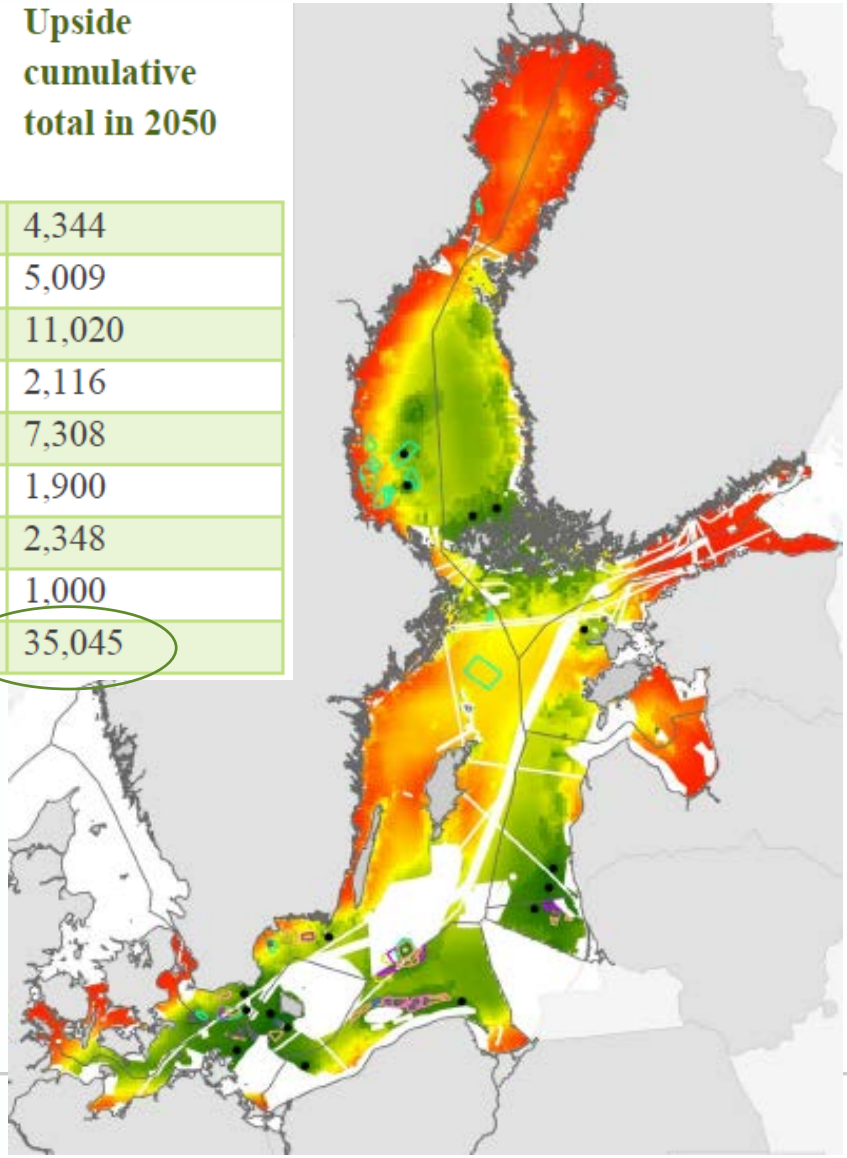
- 2017: Installed Offshore Wind: **≈1.8 GW**
- 2030: Economically attractive potential: 750 Twh/yr with **186 GW ***

*Wind Europe June 2017

Baltic Sea: Vision 2050

MW	BIG 2030 Upside cumulative total	WP 4 'High OWP 2045' additions 2030-2045	Further additions before 2050	Upside cumulative total in 2050
Denmark	1,696	648	2,000	4,344
Germany	3,305	204	1,500	5,009
Sweden	472	6,048	4,500	11,020
Finland	616	0	1,500	2,116
Poland	2,232	3,076	2,000	7,308
Estonia	900	0	1,000	1,900
Lithuania	300	1,548	500	2,348
Latvia	0	0	1,000	1,000
Total	9,521	11,524	14,000	35,045

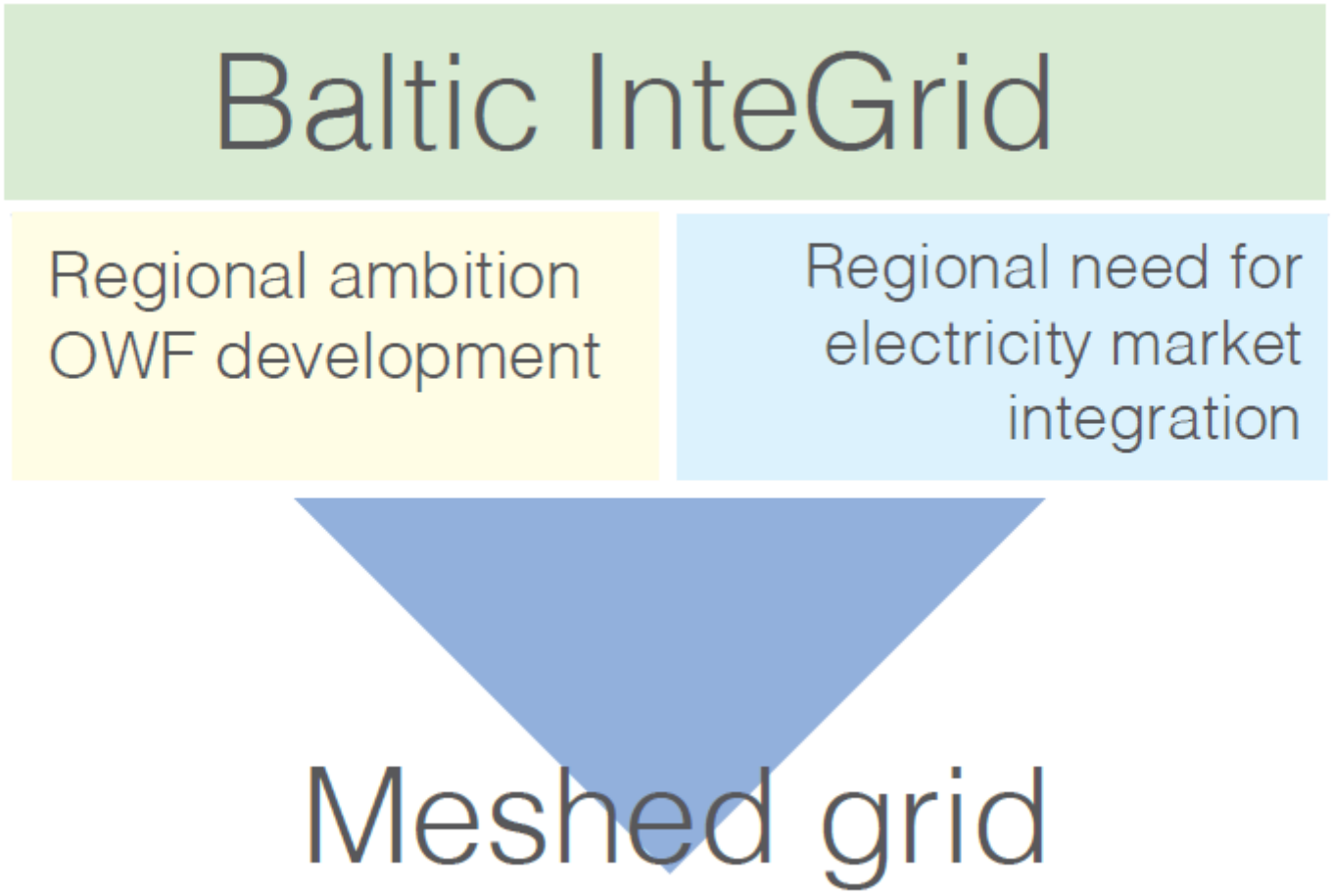
2050: 35 GW



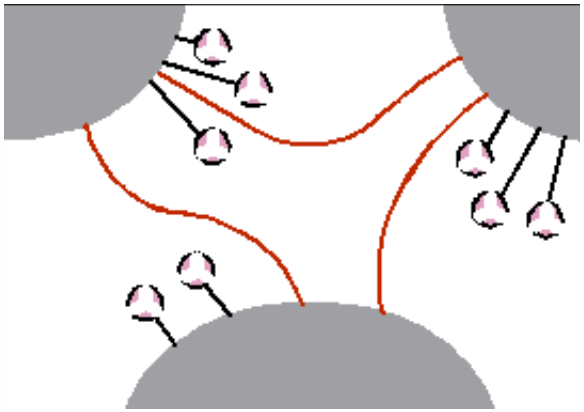
Electricity market integration in the Baltic Sea region

- Need for enhanced coordination of grid planning
- Regional electricity exchange to increase to 2030 min.
- Need for more interconnectors

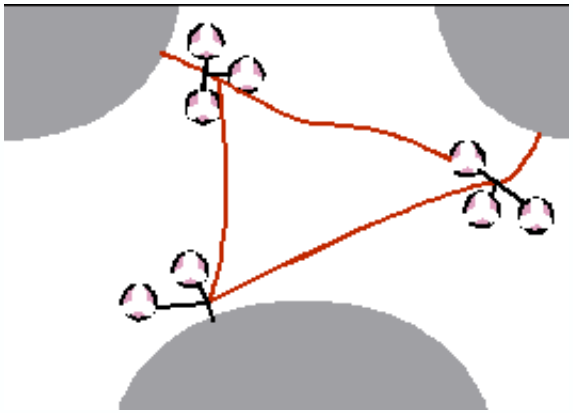
*BASREC Study "Electricity Grid Expansion in the Context of Renewables Integration in the Baltic Sea"


Baltic InteGrid
Regional ambition
OWF development
Regional need for
electricity market
integration
Meshed grid

Radial approach



Meshed approach

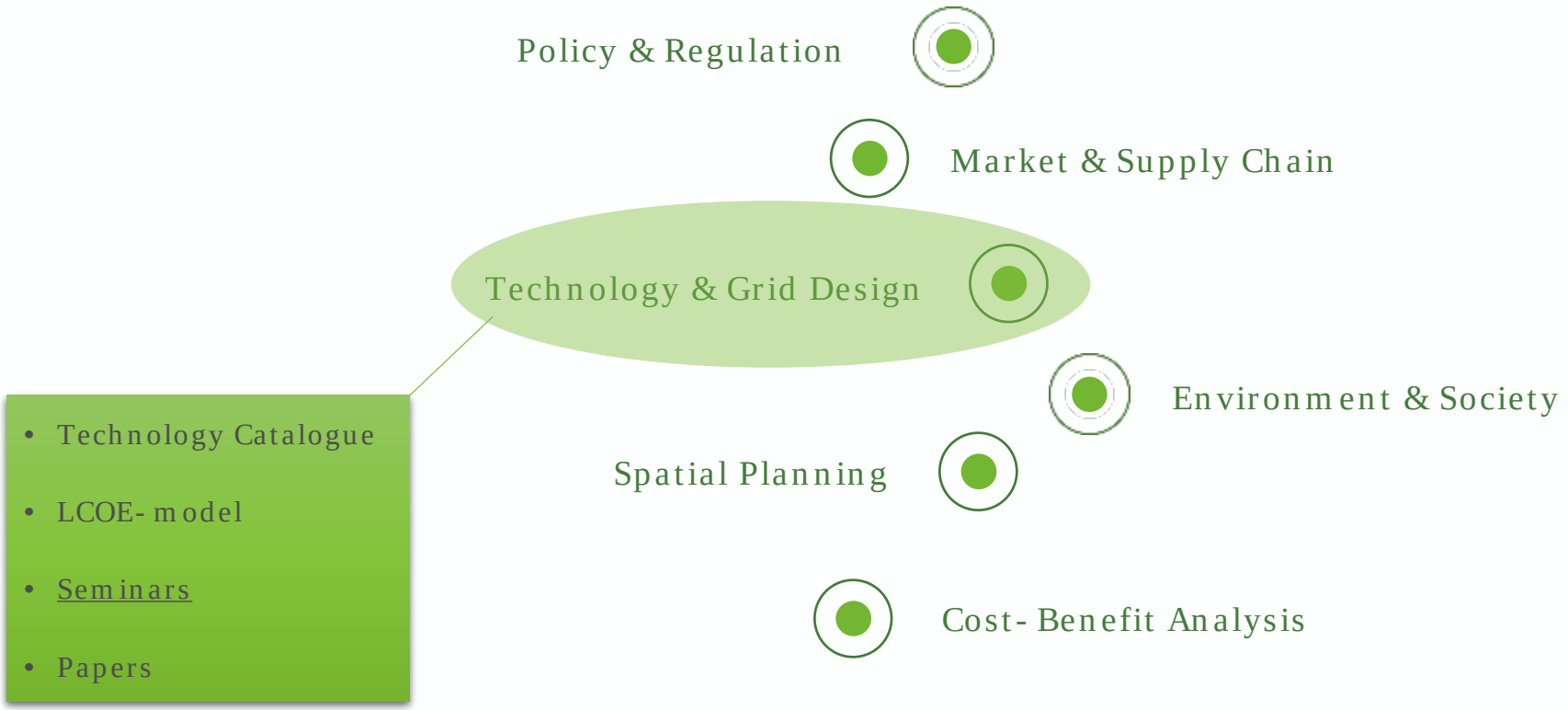


+ Cost Savings
+ Environmental impact
+ RES + Market integration
– Legal & regulatory barriers
– High initial investments
– Coordination

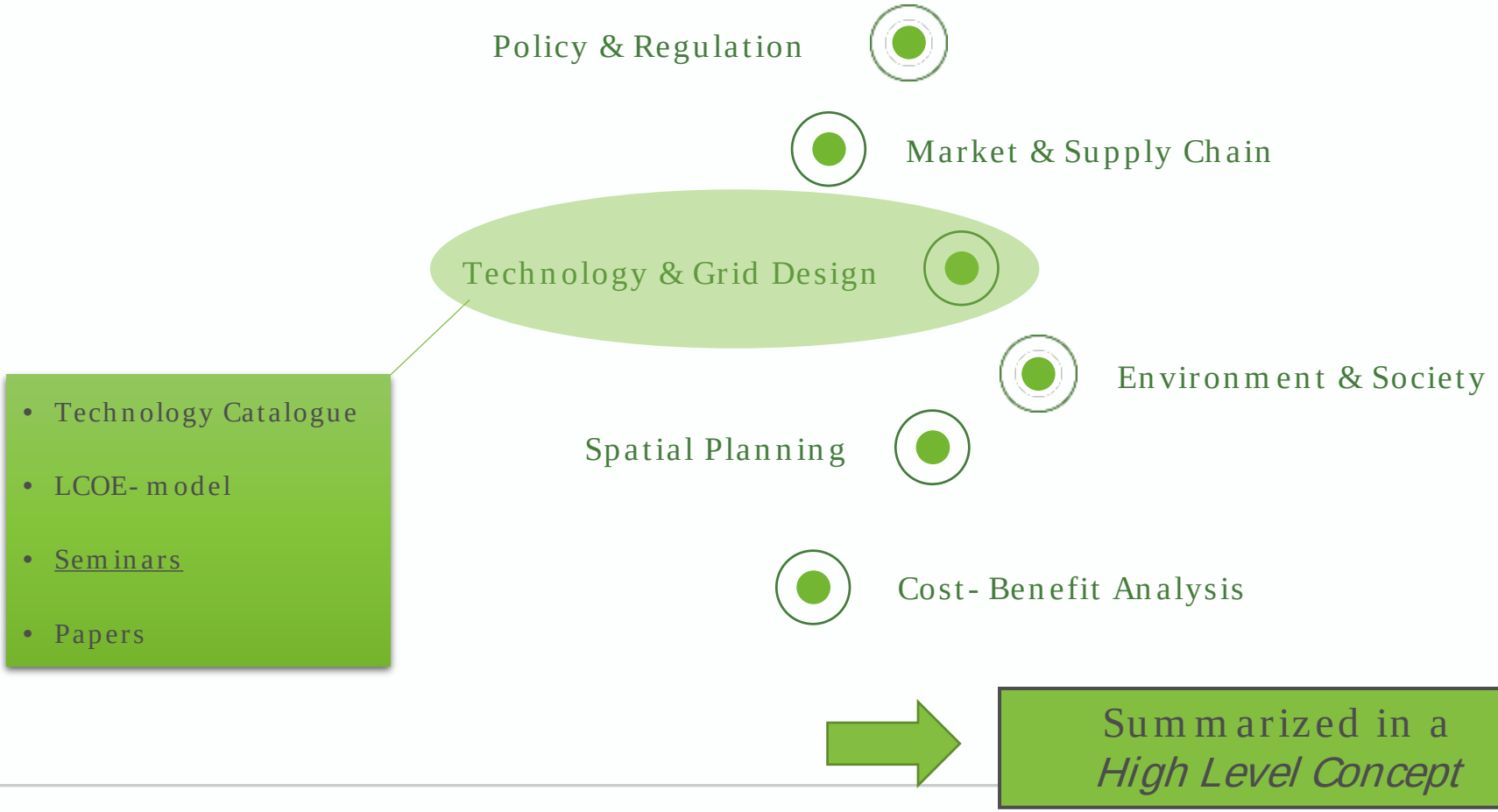
Core pillars of the Baltic InteGrid

Baltic Offshore Grid Forum	► Network & conference platform
Baltic Offshore Grid Concept	► Interdisciplinary research
Pre-feasibility studies	► In-depth perspective on 2 cases

6 Thematic Working groups:



6 Thematic Working groups:

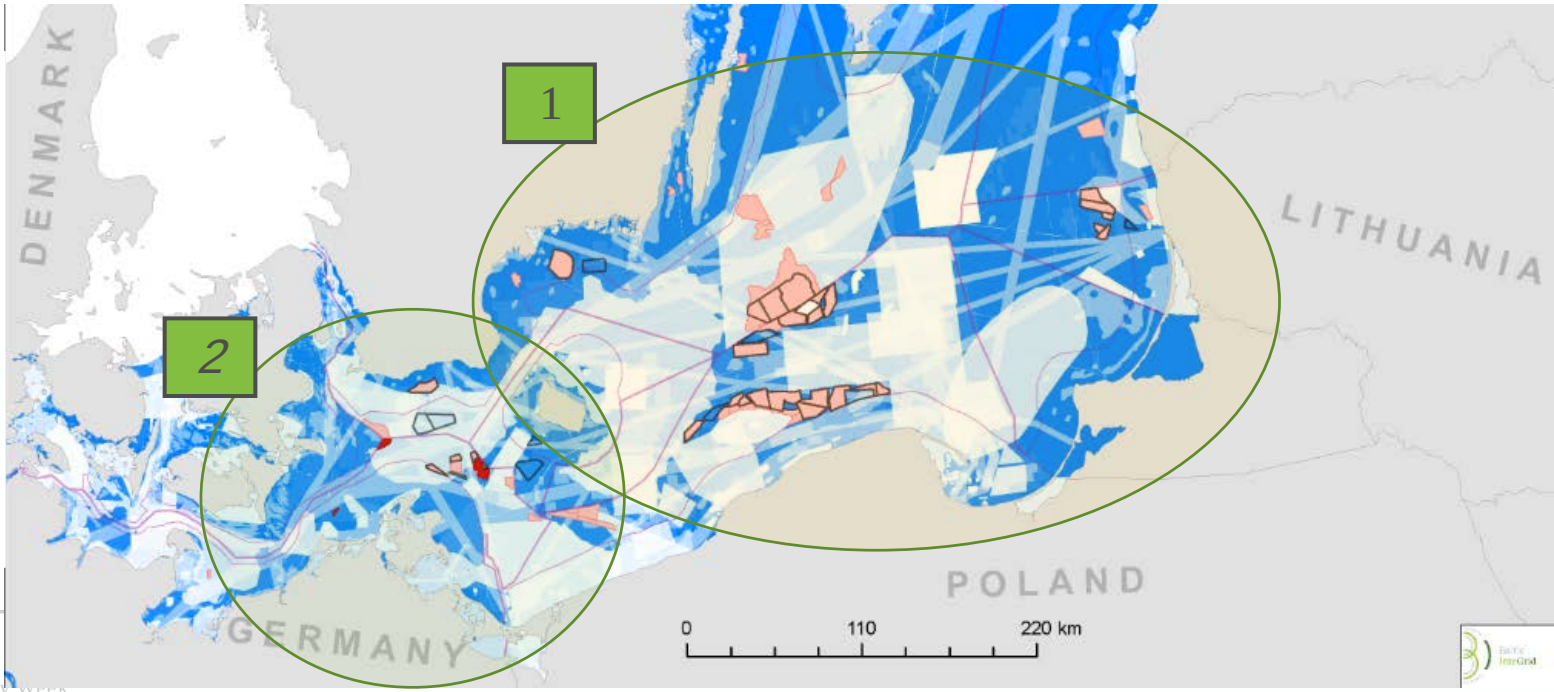


Pre-feasibility Studies

2 case-studies on offshore wind farm interconnectors

1) Interconnector via OWFs between SE, PL and LT

2) Interconnector via OWFs between DE and SE



Thank you for your attention!

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