



Baltic
InteGrid
Integrated Baltic Offshore
Wind Electricity Grid Development

Baltic offshore grid concept

Pierre Ståhl

Energikontor Sydost, Växjö Sweden

- Nordic & Baltic market
- Snapshot from yesterday
- Overseas trading
- Netto export: 2623 MW



SvK:
<https://www.svk.se/en/national-grid/the-control-room/>

Total exports / imports

Exporting

SWEDEN

4 754 MW

Importing

DENMARK

2 616 MW

Exporting

NORWAY

3 163 MW

Importing

FINLAND

3 138 MW

Importing

ESTONIA

65 MW

Exporting

LATVIA

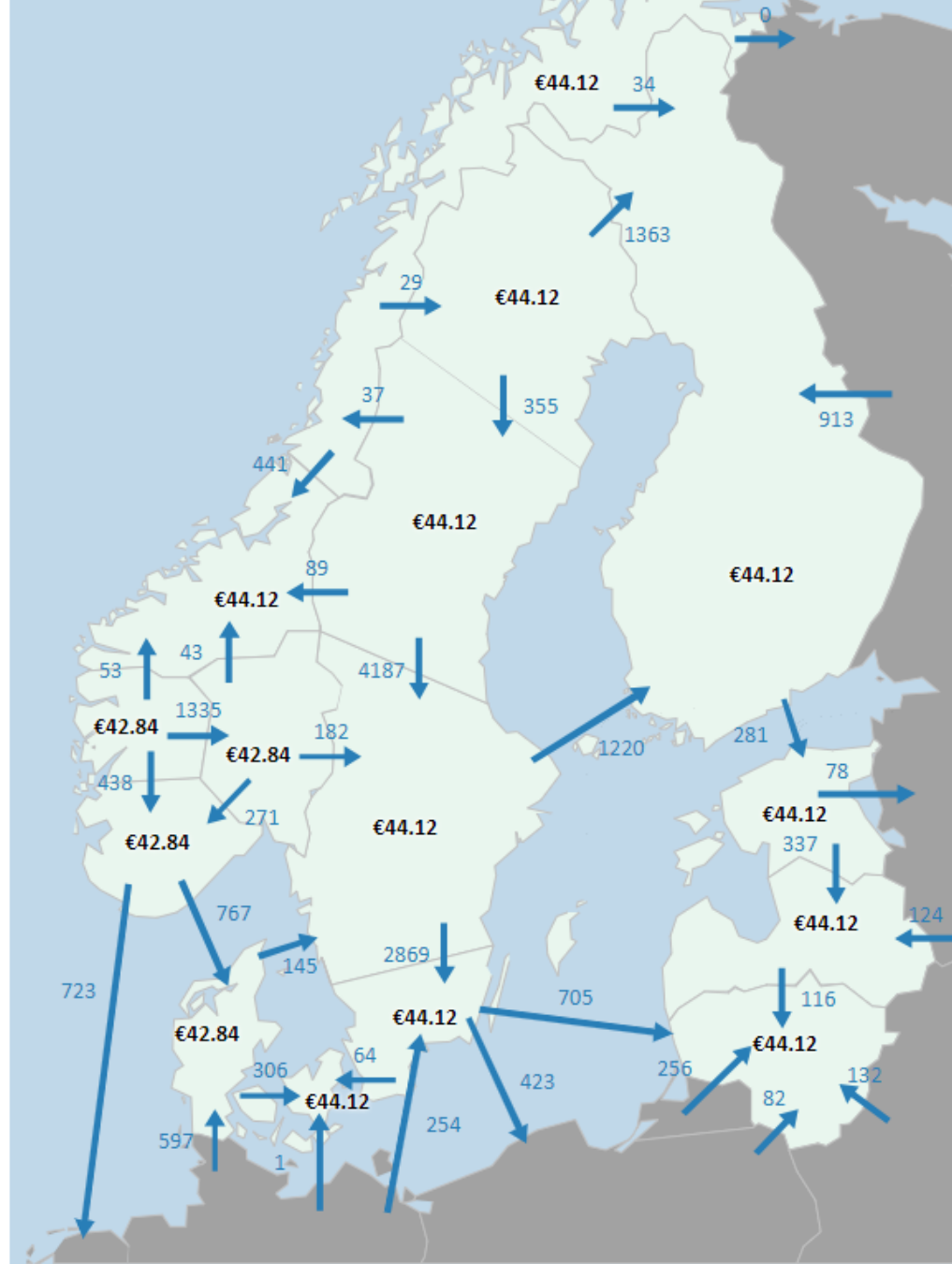
234 MW

Exporting

LITHUANIA

291 MW

- Snapshot from last week
- Netto import: 1048 MW



Exporting

SWEDEN
3 069 MW

Importing

DENMARK
1 194 MW

Exporting

NORWAY
1 656 MW

Importing

FINLAND
3 097 MW

Exporting

ESTONIA
131 MW

Importing

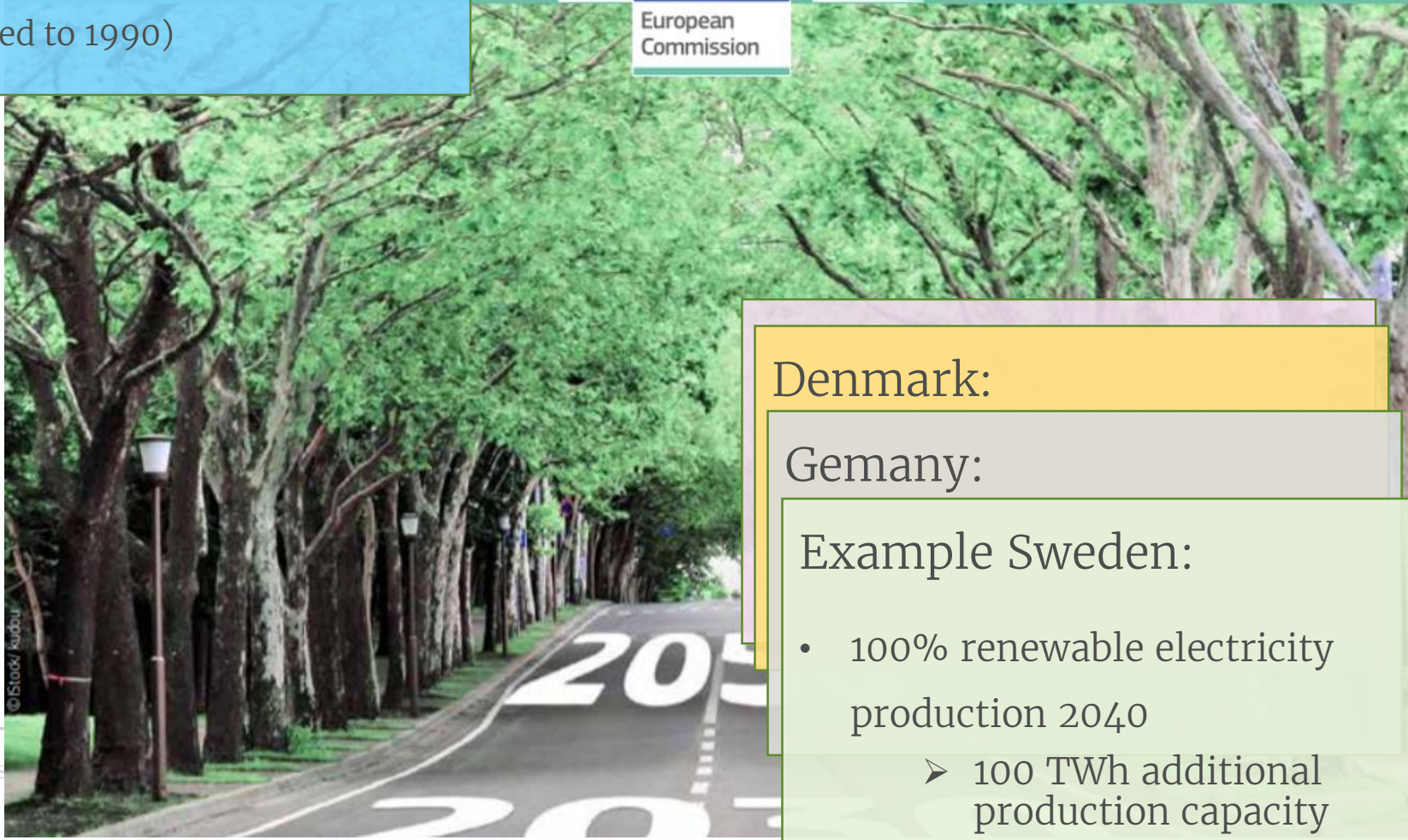
LATVIA
352 MW

Importing

LITHUANIA
1 261 MW

EU – Vision:

- 80% CO₂-reduction by 2050
(compared to 1990)



Denmark:

Germany:

Example Sweden:

- 100% renewable electricity production 2040
 - 100 TWh additional production capacity

Baltic InteGrid

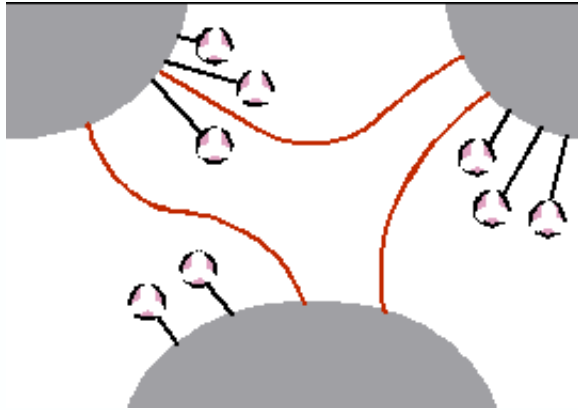
Regional ambition
OWF development

Regional need for
electricity market
integration



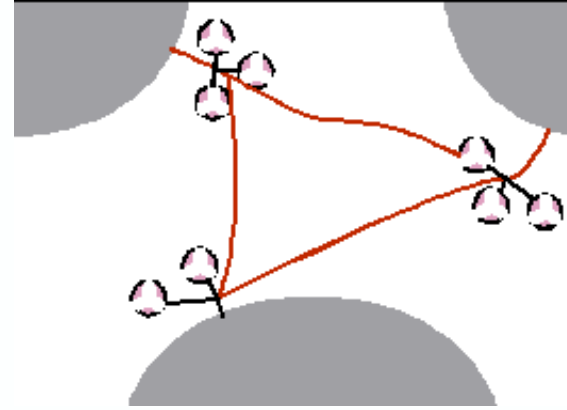
Meshed grid ?

Radial approach

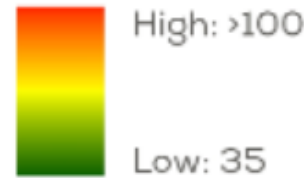


+ Business as usual

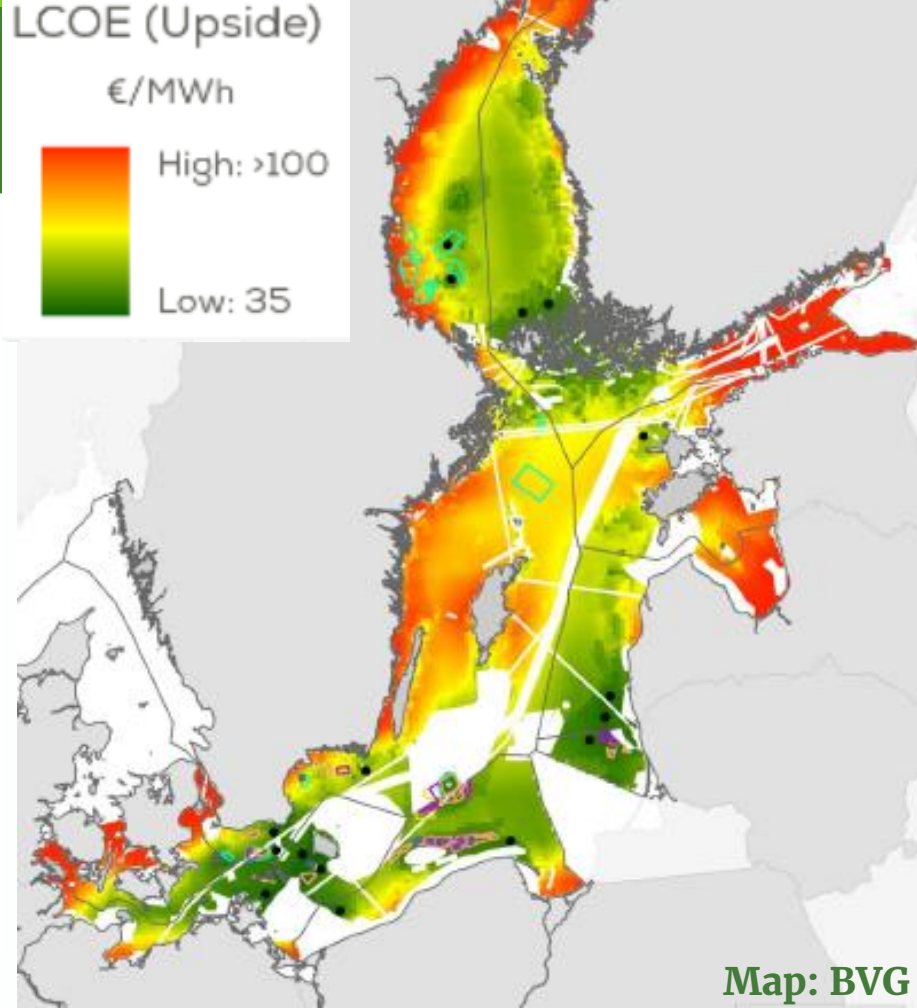
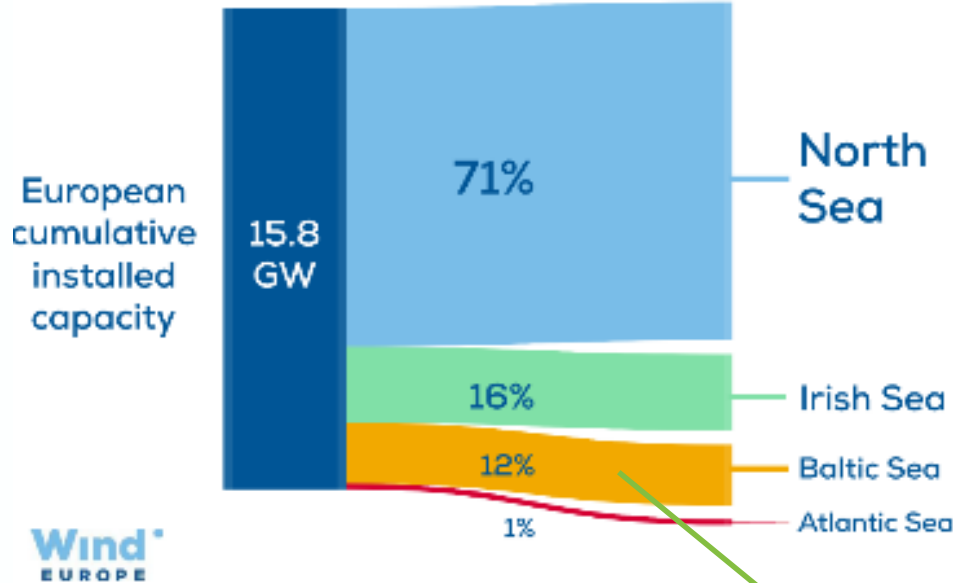
Meshed approach



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



Offshore Wind in Europe 2017



Baltic Sea

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

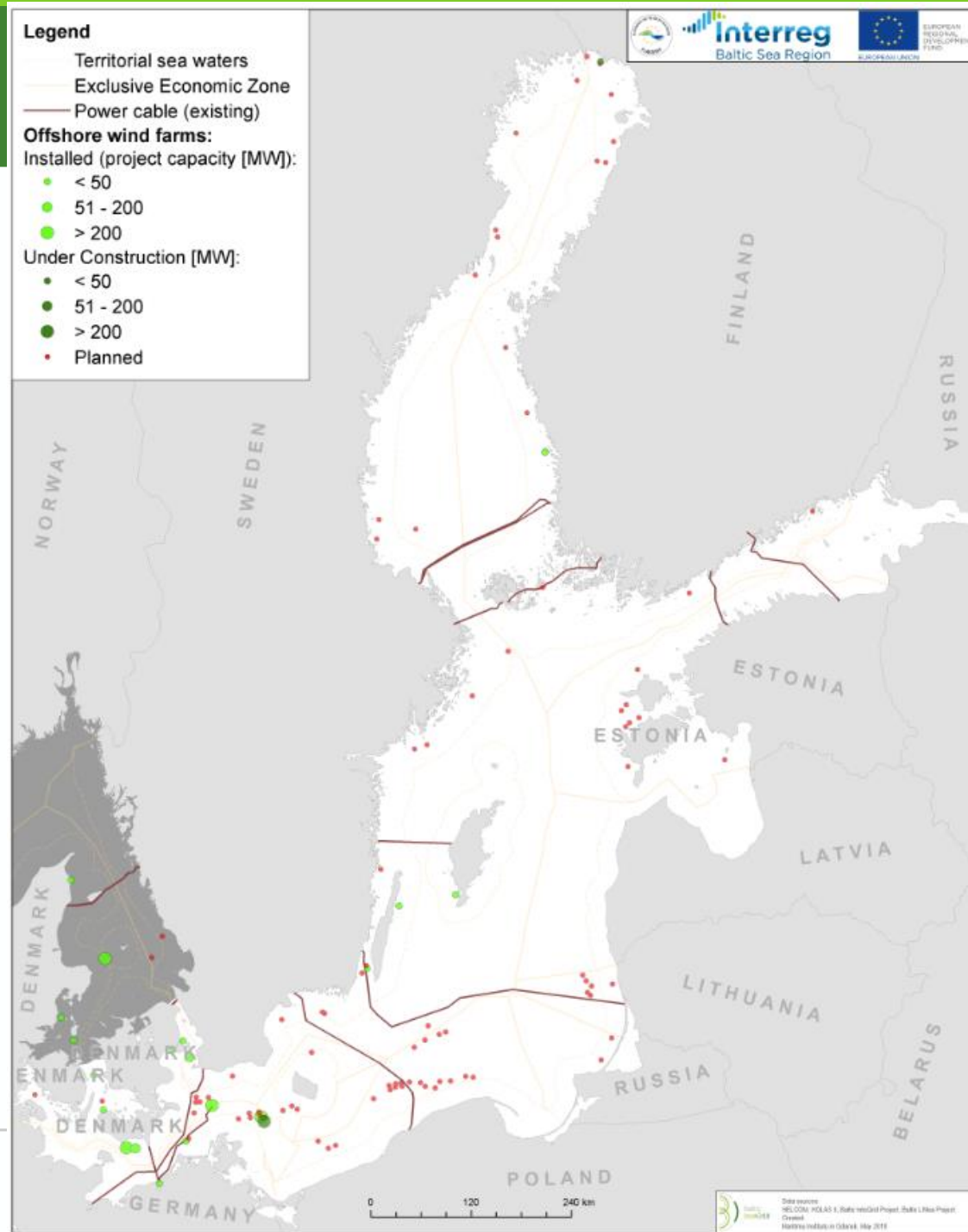
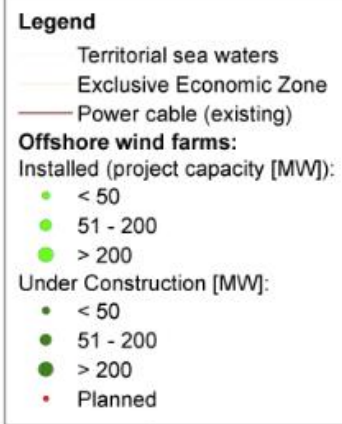
*Wind Europe June 2017

100 times installed capacity!

Baltic Sea

Installed Offshore Wind power

- **2030 Upside scenario:**
>9 GW
- **Vision 2050:**
35 GW,
145 TWh/year



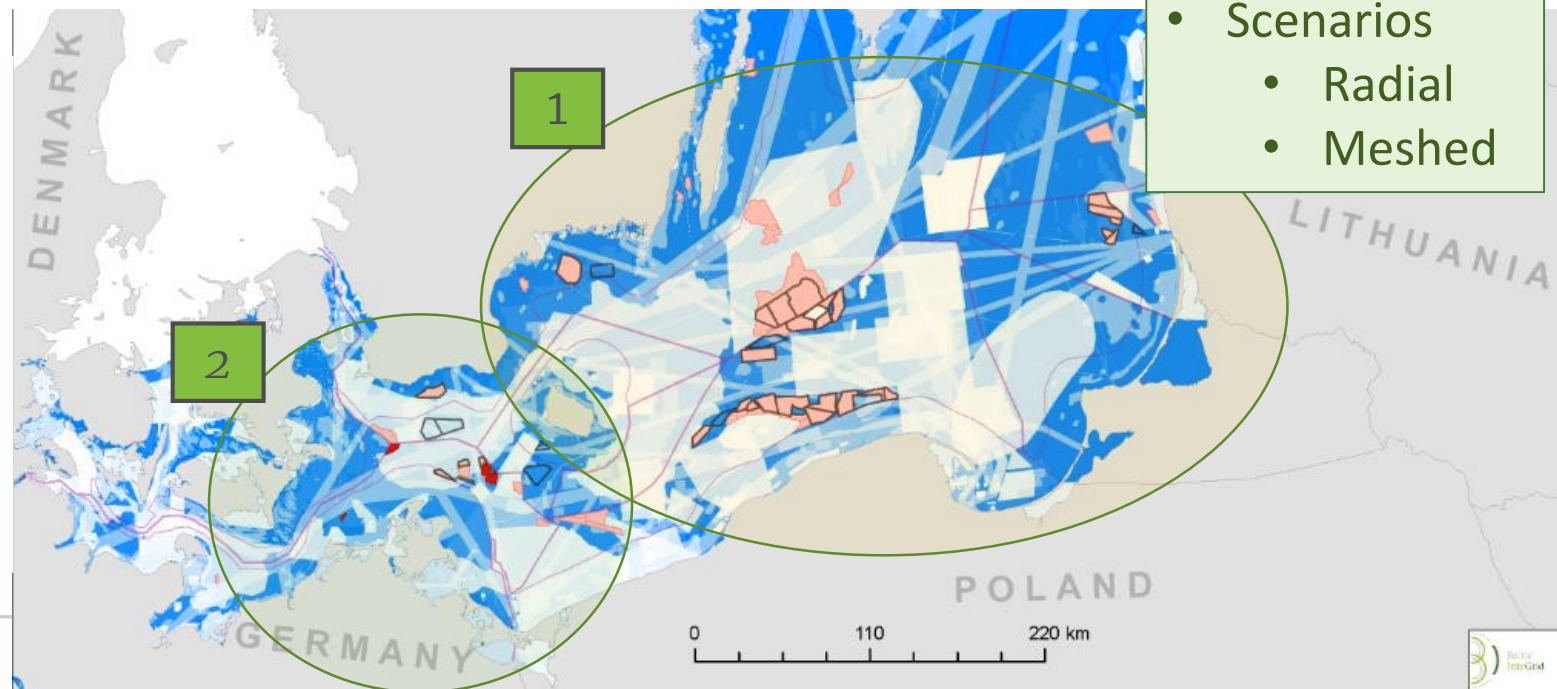
Pre-feasibility Studies

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

- Planned windfarms
- Up to 2045
- Scenarios
 - Radial
 - Meshed

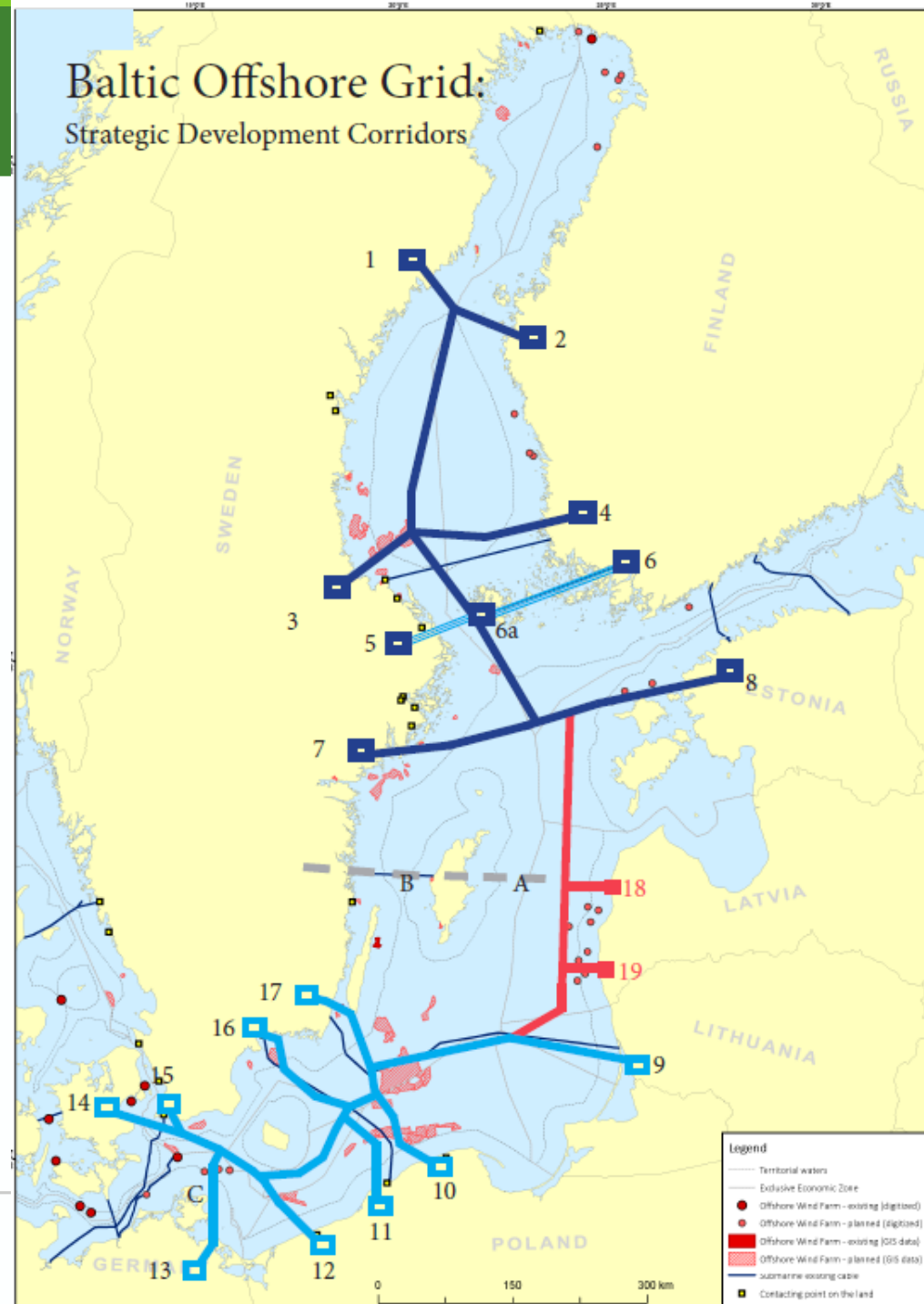


Baltic Offshore Grid - BOG

- Concept
- Vision
- Future: 2050
- Example
- Based on study cases

Goals

- Easier to connect OWF
- Increased security of supply
- Further integration of energy markets
- OFW Cost reduction



Thank you for your attention!

For further information:

Mail: info@baltic-integrid.eu

Web: www.baltic-integrid.eu

Baltic InteGrid represented by the Lead Partner:

**Institute for Climate Protection, Energy and
Mobility (IKEM)**

Magazinstraße 15-16, 10179 Berlin, Germany

Phone: +49 (0) 30 408187015

Mail: info@ikem.de

Web: www.ikem-online.de

The content of the presentation reflects the author's/partner's views and the EU Commission and the MA/JS are not liable for any use that may be made of the information contained therein. All images are copyrighted and property of their respective owners.

[Sign up for Newsletter >>](#)



Pierre Ståhl / Project manager

**Energikontor Sydost AB –
Energy Agency for Southeast Sweden**

Tel: +46 (0)70-688 75 20

energikontorsydost.se