Baltic
InteGrid

Integrated Baltic Offshore
Wind Electricity Grid Development

Interreg
Baltic Sea Region

EUROPEAN UNION
EUROPEAN
REGIONAL
DEVELOPMENT
FUND

Status Quo

- what do we know?

spatial data in the Baltic Sea Region

PP7 MIG
Maritime Institute in Gdańsk
Poland

1st seminar of the Thematic Working Group on Environment and Society
Warszawa, 28th February, 2017

MIG in Baltic InteGrid project

WP1: Project management and administration

WP2: Baltic Offshore Grid Forum

- GoA 2.2 Organisation of the seminars of the working groups
- GoA 2.4 Conference organization and general communication tasks

WP3: Development of the Baltic Grid Concept

- GoA 3.2 Market & Supply Chain
- GoA 3.3 Technology & Grid Design
- GoA 3.4 Environment & Society
- GoA 3.5 Spatial Planning **(Maritime Institute in Gdańsk)**
  - *Activity 1: Analysis of current development of maritime spatial plans in the BSR*
  - ***Activity 2: Data collection and analysis***
  - *Activity 3: Establishment of key spatial constraints*
  - *Activity 4: Identification of potential infrastructure corridors for the Baltic Grid*

WP 4 – Prefeasibility Studies

- GoA 4.2 Prefeasibility study for the Polish-Swedish case study

WP 5 – Recommendations

- GoA 5.2 - Recommendations to the Maritime Spatial Plans

1st Main Task: Data collection and analysis

Activity 2:

Data collection and analysis

The data required to identify the spatial placement of Baltic Grid elements will be collected in GoA 3.4.

GoA 3.5 requires the spatial assessment of this data and the identification of data gaps.

Those missing data elements required for the selection of the Baltic Grid location will then be collected or created.

Spatial data = GIS data = data with geographical placement

GIS data for BIG project

Relevant data for GRID spatial analysis:

1) offshore wind farms (existing and planned);
2) linear infrastructure elements (existing and planned):
   - power cables
   - contacting points on land

Background data:

- bathymetry
- nature protection
- navigation lines
- commercial fishery bottom trawling
- underwater cultural heritage areas
- anchorage areas
- bottom surface sediments
- chemical weapon

and:

- other oceanographic elements
- bottom habitats
- military exercise zones
- other linear infrastructure
- sediment contamination

What was done in BIG project on GIS data

BSR data sources:

1. Verification of open databases (HELCOM, Balance project etc.)
2. Preparation of the list of relevant data sources (websites, geoportals)

Data:

1. Collection of data from PPs (infrastructure, OWF)
2. Request letter to administrative bodies from all partner's countries (2 answers received)
3. Cooperation with Baltic LINes partners (6 answers, 1 in processing, 1 without answer)
4. Data visualization

Data visualisation (OWFs + infrastructure)

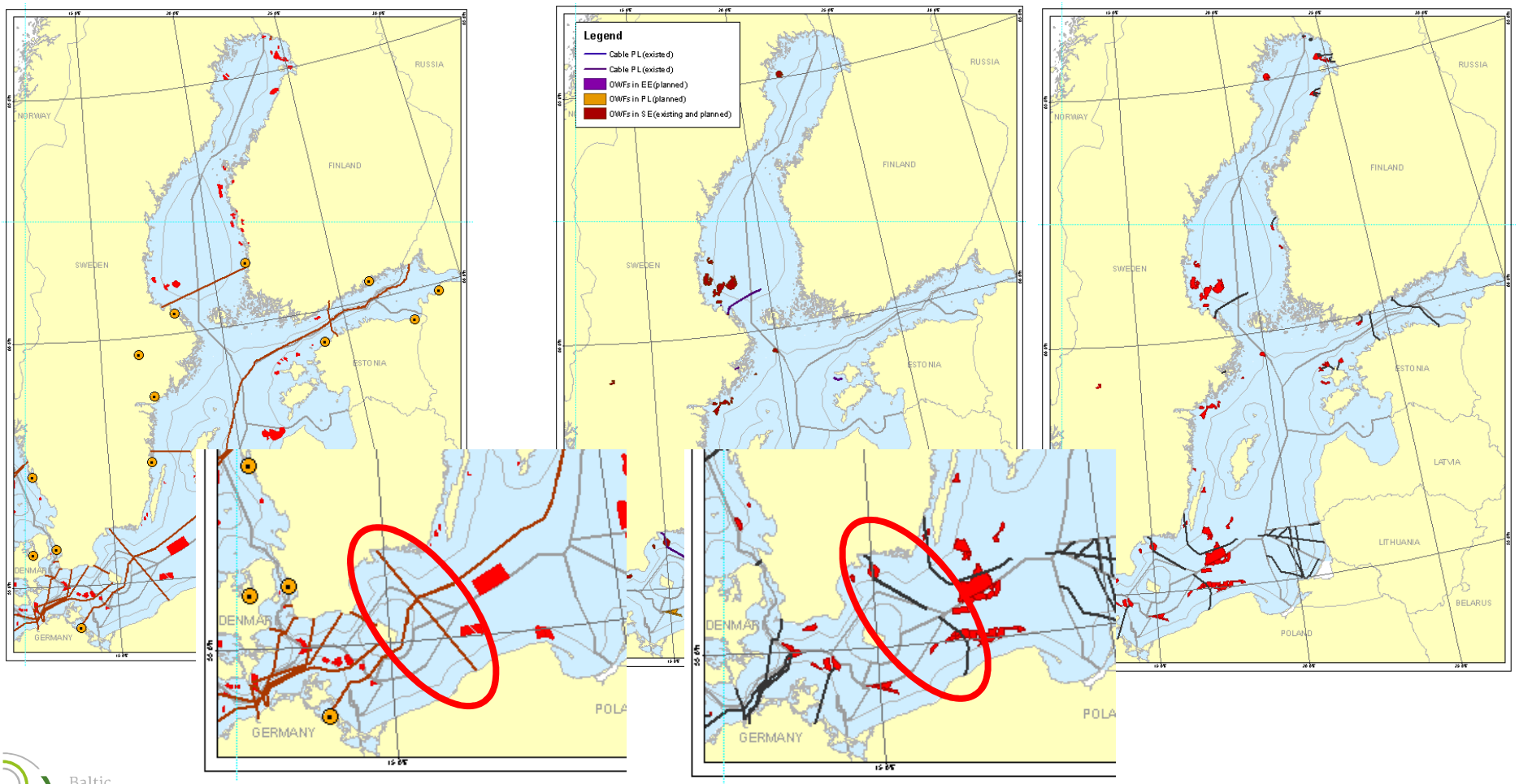
OPEN SOURCES:

HELCOM: GISdata (2009)

BIG Partners:

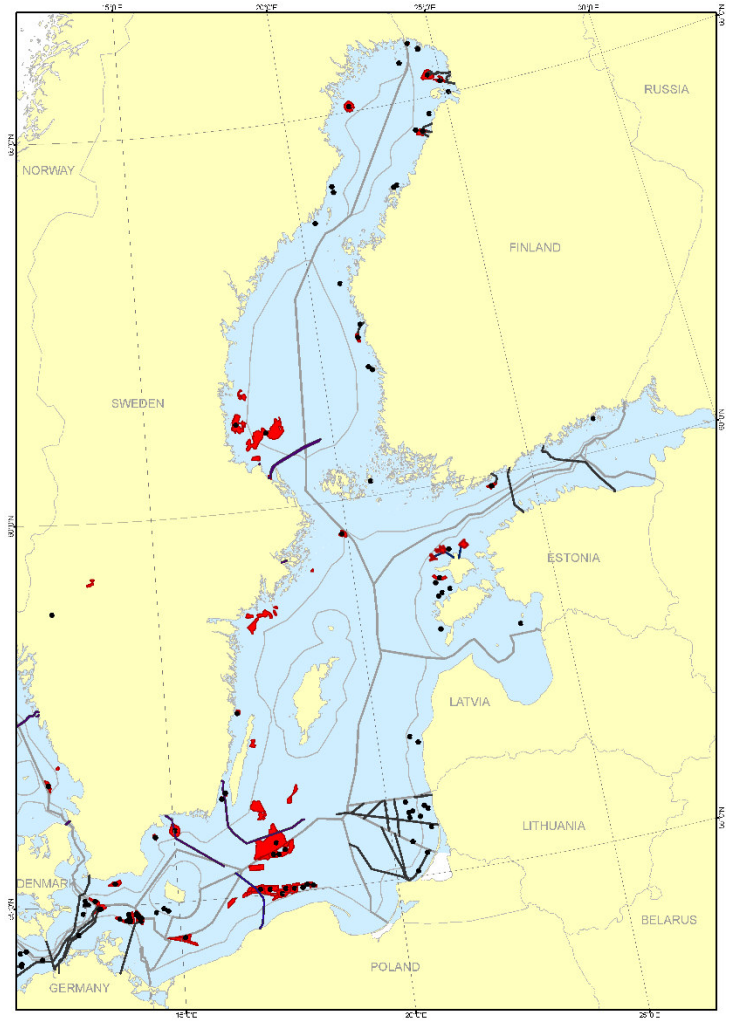
BIG: GISdata

BIG: all data
(GISdata + digitized data)

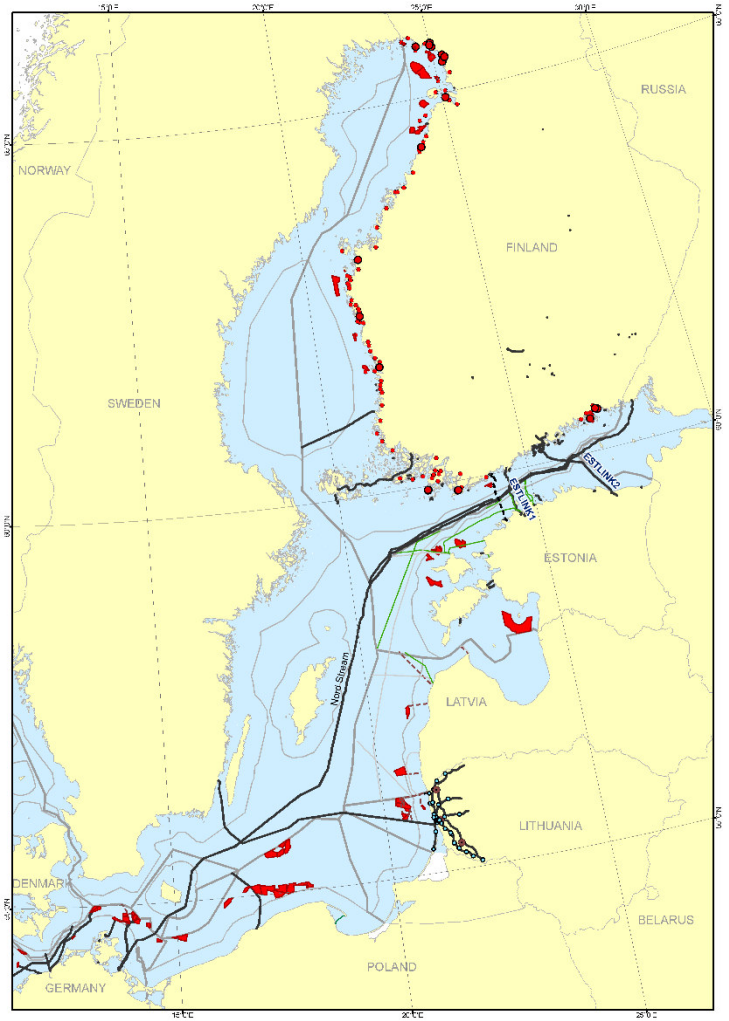


Data visualisation (OWFs + infrastructure)

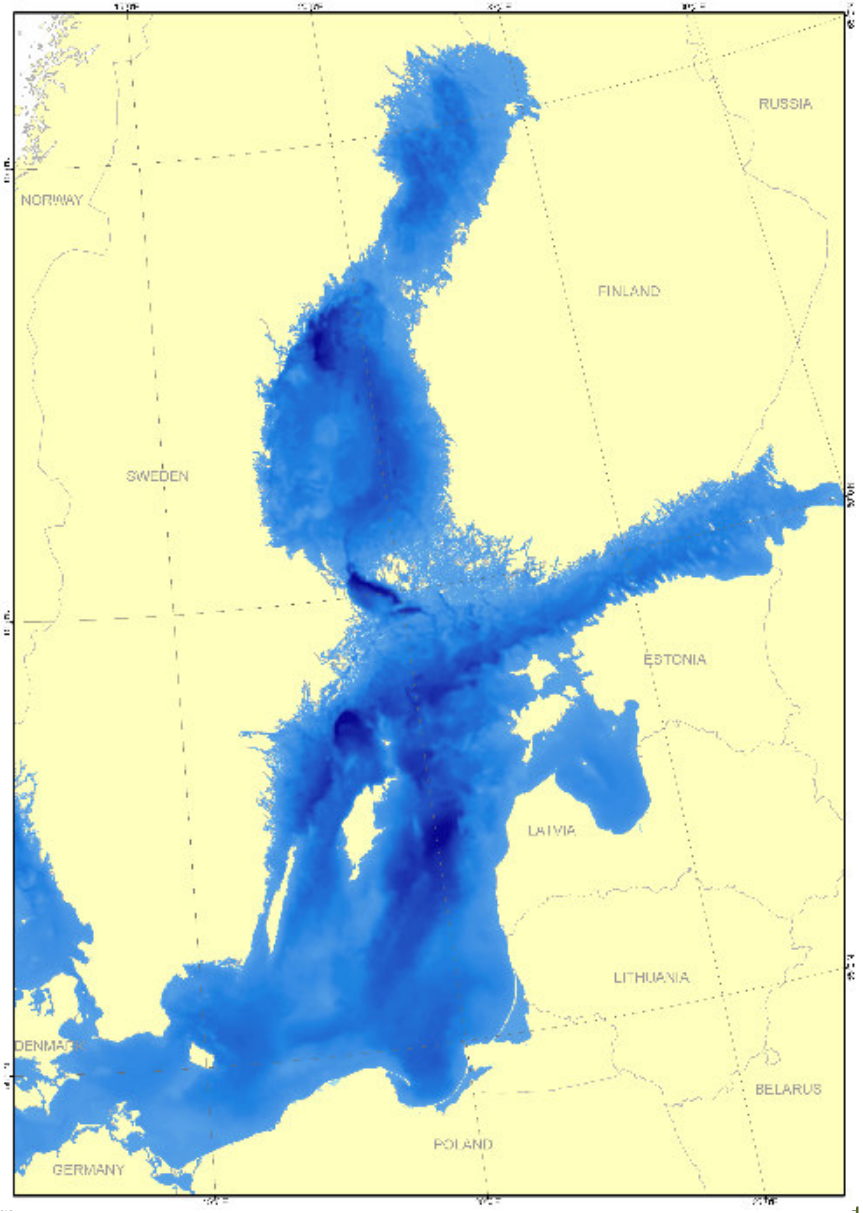
Baltic InteGrid data (GIS +digitized)



Baltic LINes data (GIS)

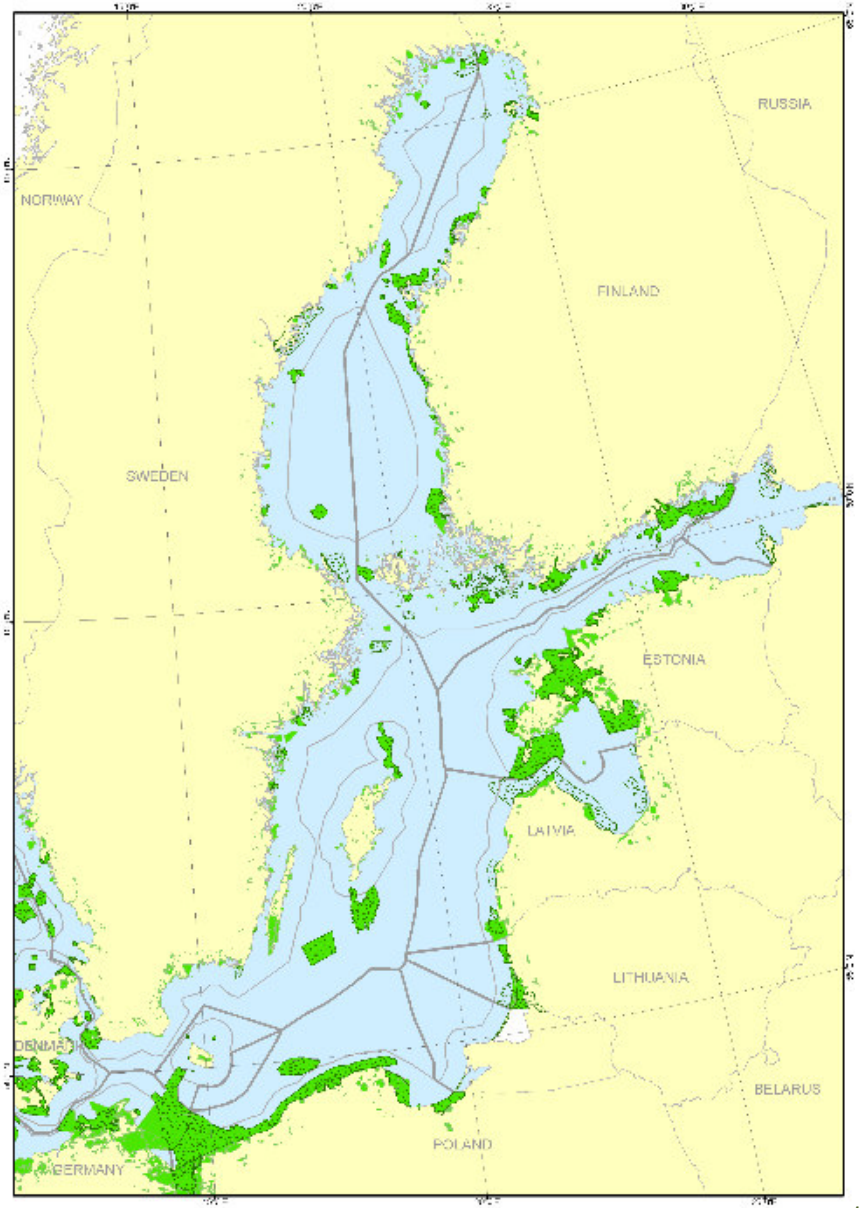


Background data



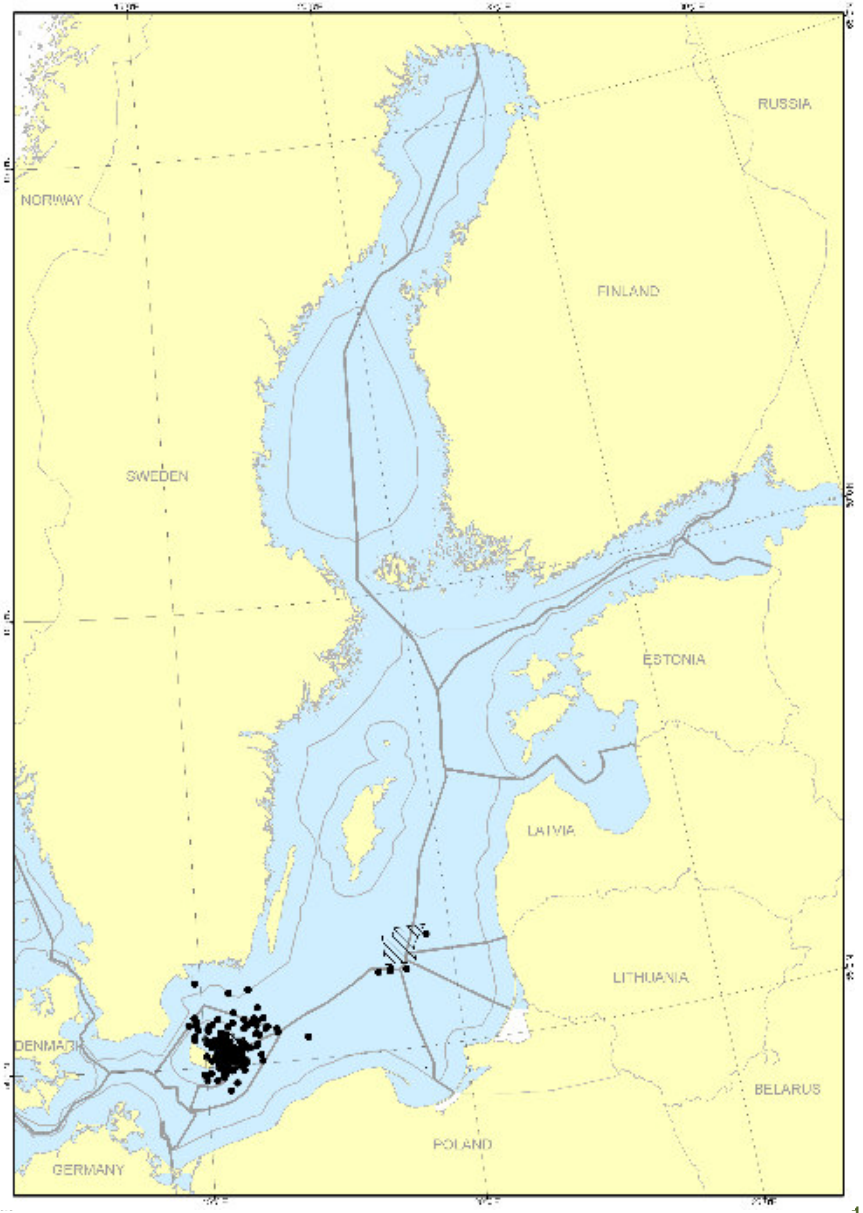
Bathymetry (2007)

Background data



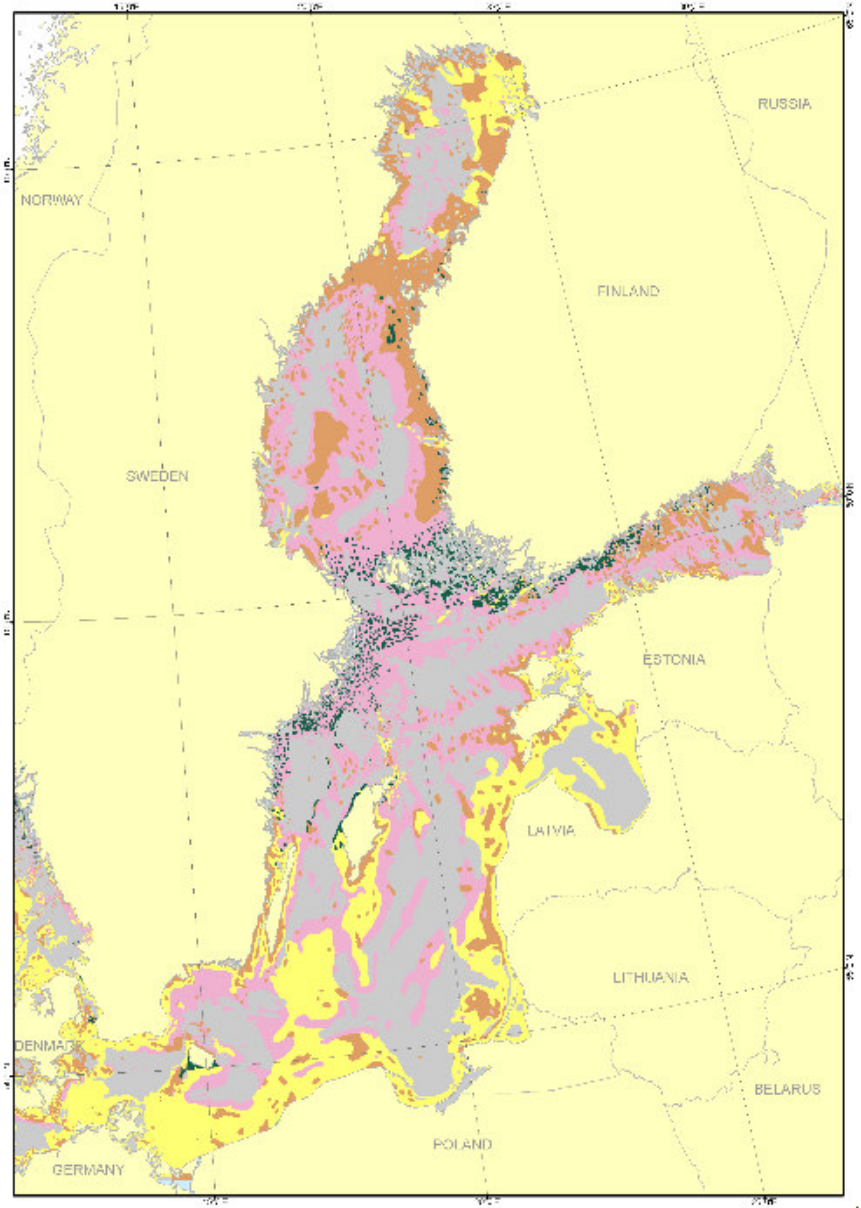
Nature protection (2009)

Background data



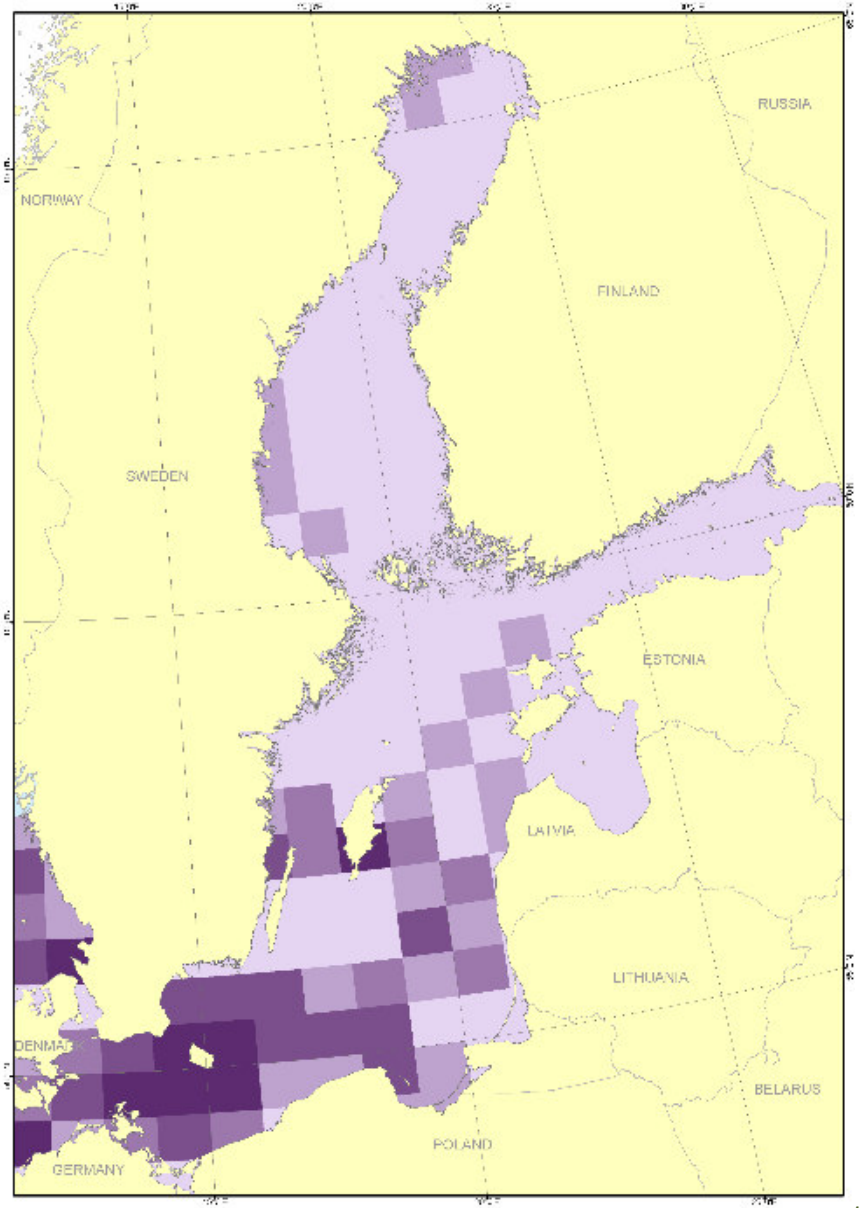
Chemical weapon (2013)

Background data



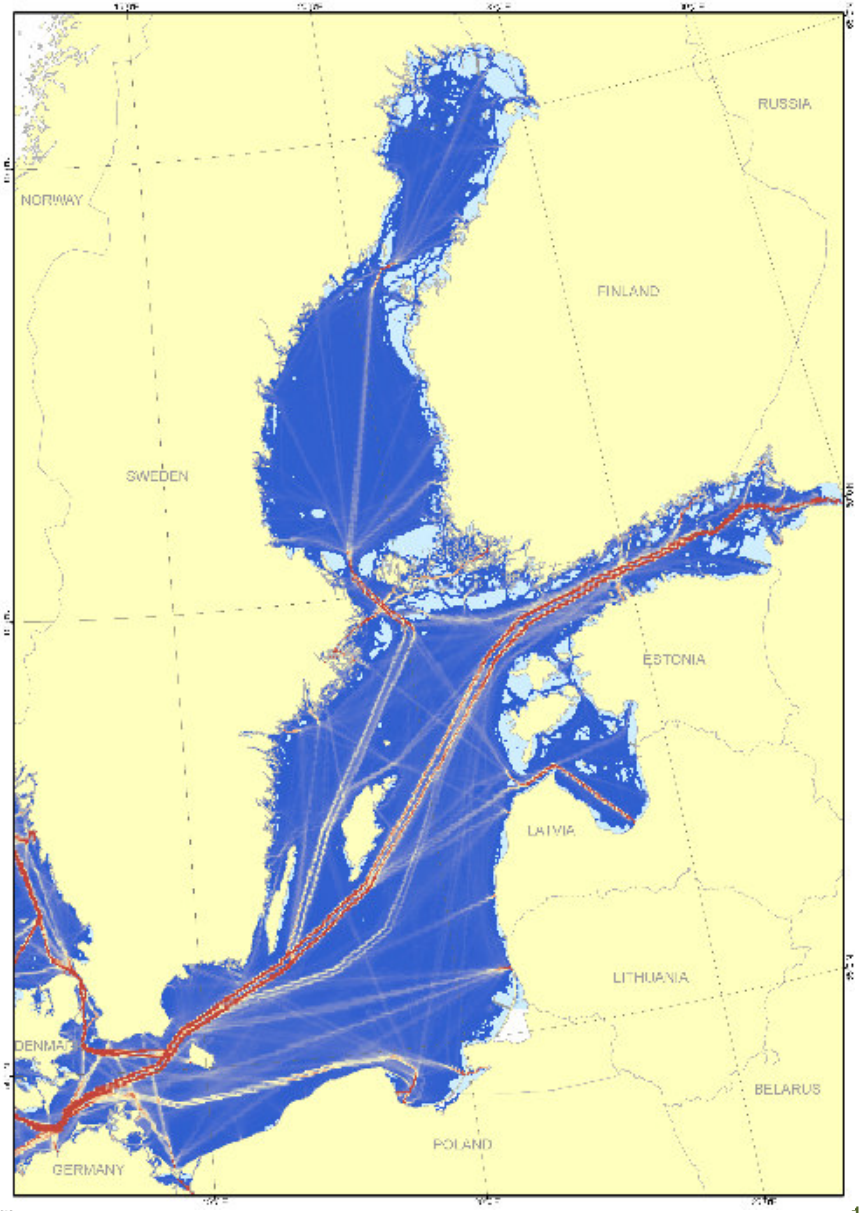
Bottom sediments (2007)

Background data



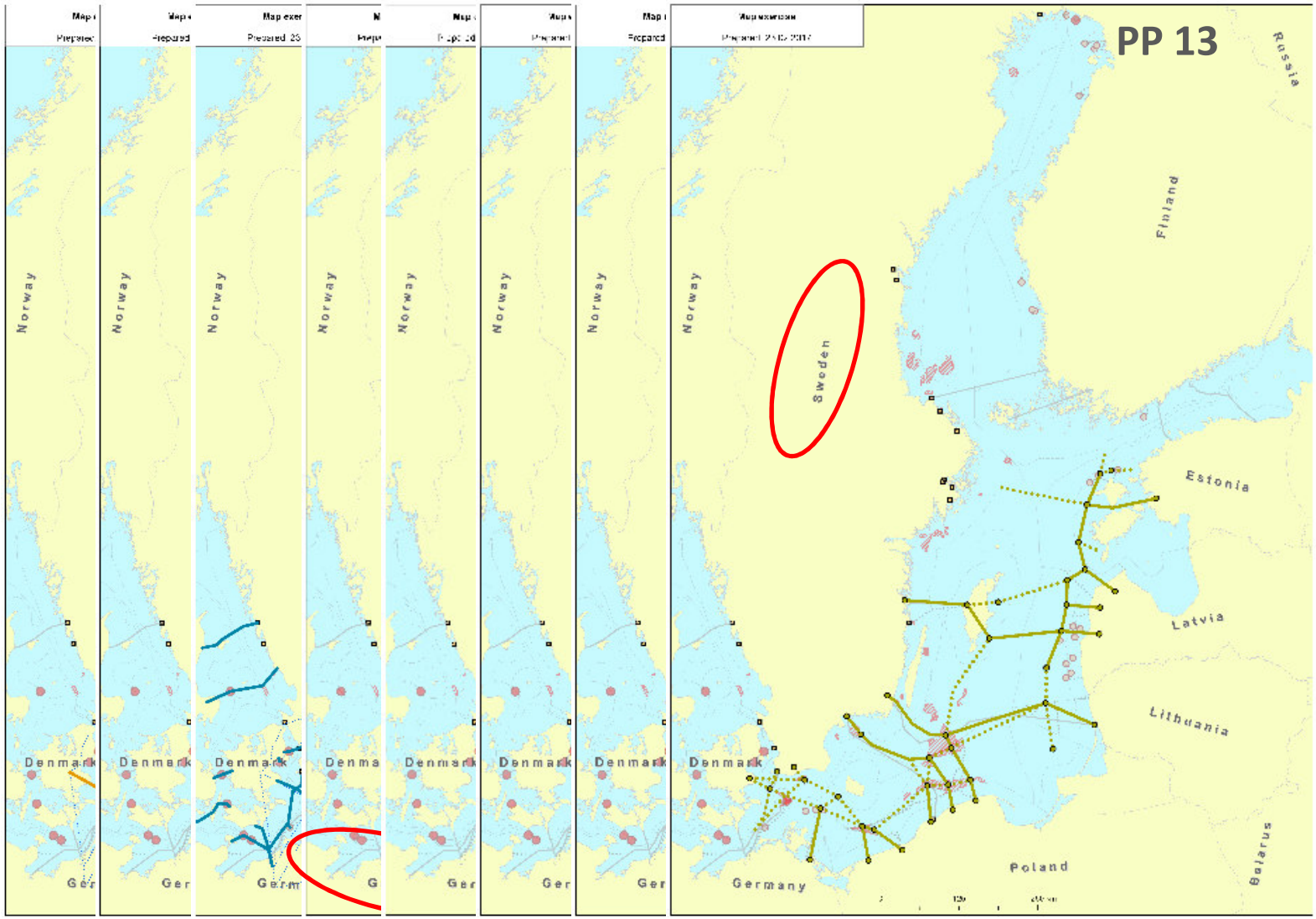
Fishery – bottom trawling (2007)

Background data

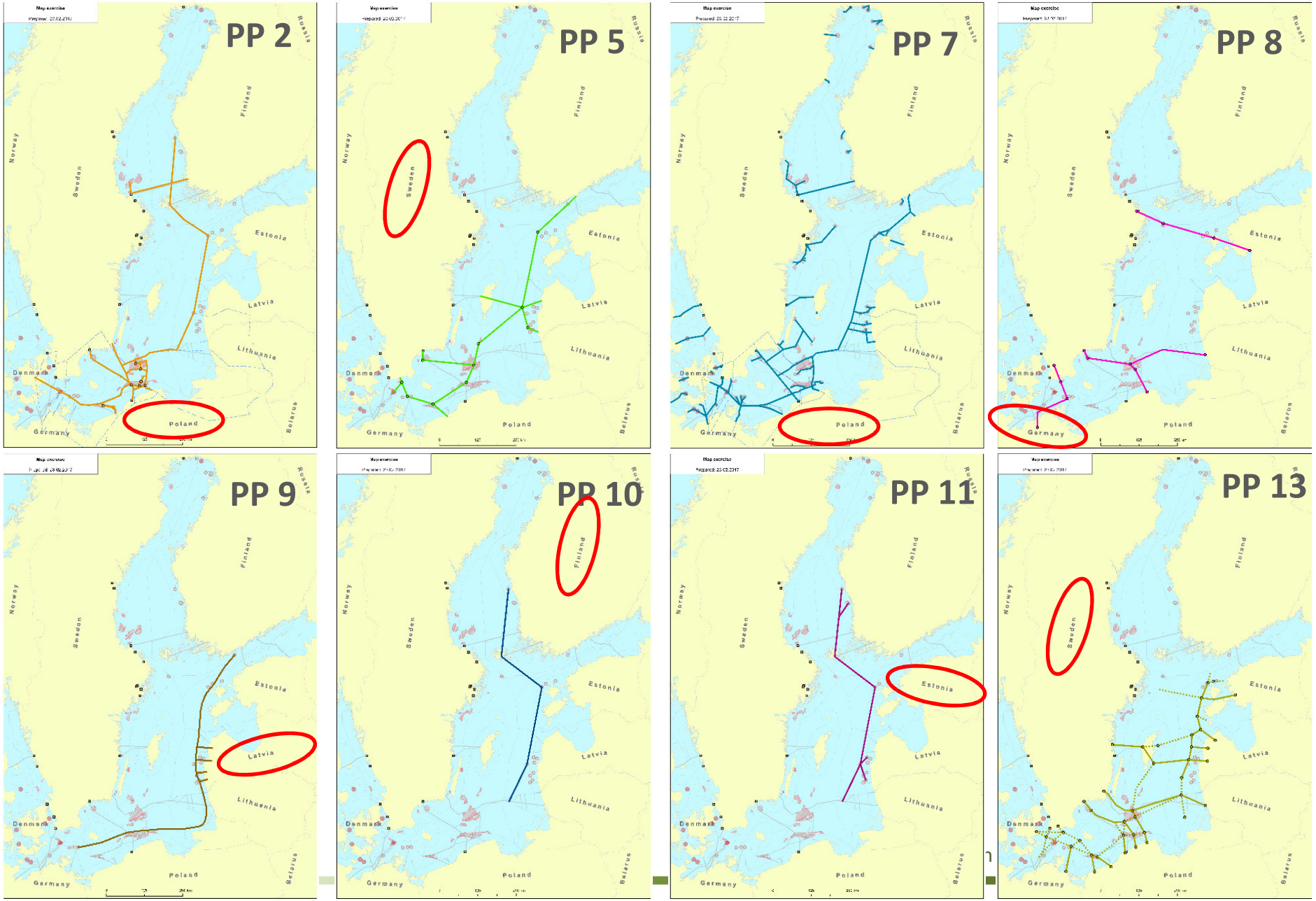


Navigation lines (2011)

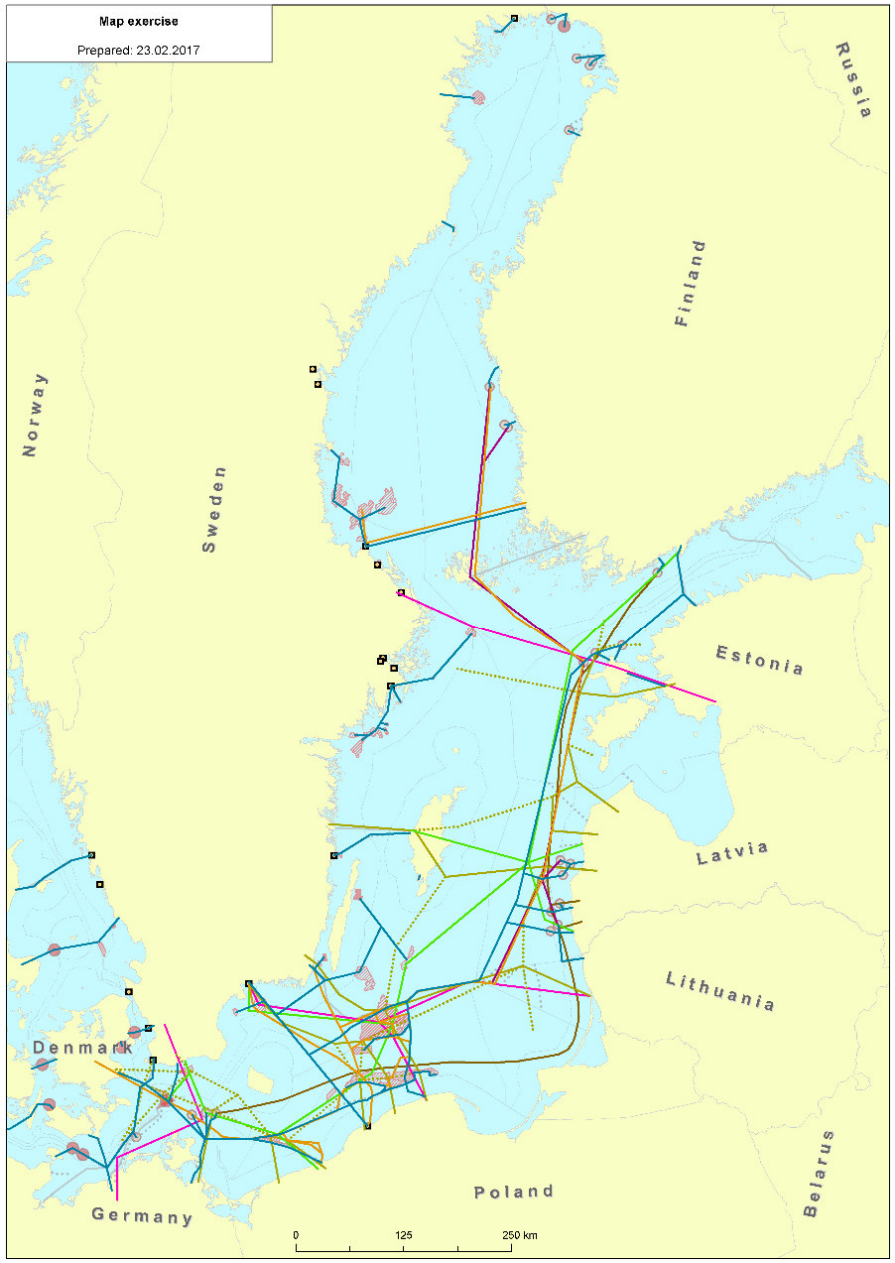
Map exercise - proposition of Baltic Grid variants



Map exercise - proposition of Baltic Grid variants



Map exercise - proposition of Baltic Grid variants



PP 7, Maritime Institute in Gdańsk (Poland)
PP 2, Foundation for Sustainable Energy Hub Location (Poland)
PP 2, Foundation for Sustainable Energy (Poland)
PP 5, Energy Agency orf Southeast Sweden sub-stations (Sweden)
PP 5, Energy Agency orf Southeast Sweden (Sweden)
PP, 13 Lund University sub-stations (Sweden)
PP 13, Lund University (Sweden)
PP 13, Lund University (Sweden)
PP 8, Offshore-stiftung DC/AC converters (Germany)
PP 8, Offshore - stiftung (Germany)
PP 10, Alto University (Finland)
PP 11, University of Tartu (Estonia)
PP 9, Latvian Association of Local and Regional Governments (Latvia)

Submarine cable

Existing
Planned
Connections
Offshore Wind Farms - operational (digitized)
Offshore Wind Farms - planned (digitized)
Offshore Wind Farms - planned (GIS data)
Offshore Wind Farms - operational (GIS data)

Baltic InteGrid
Integrated Baltic Offshore Wind Electricity Grid

Thank you for your attention

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