

Offshore Energy and Maritime Spatial Planning in the German EEZ

Bettina Käppeler, BSH



Federal Maritime and Hydrographic Agency – „On Duty for Shipping and Seas“

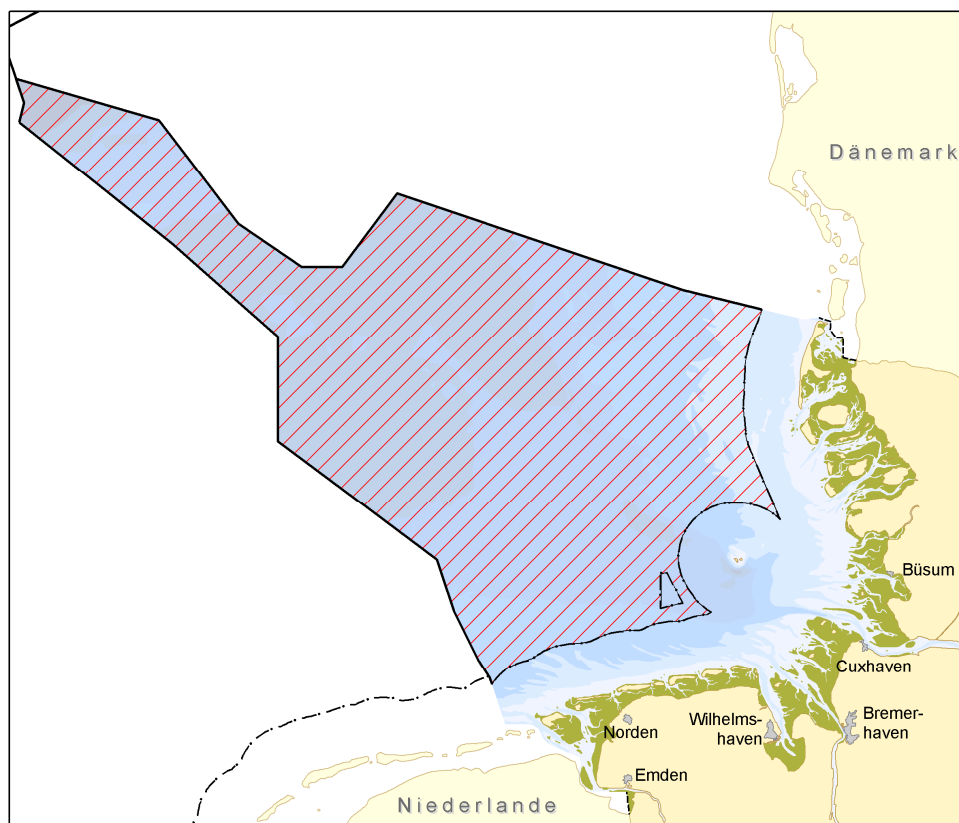
PartiSEApate Stakeholder Workshop Offshore Energy – Vilnius, 12.-13. Nov. 2013

German Exclusive Economic Zone

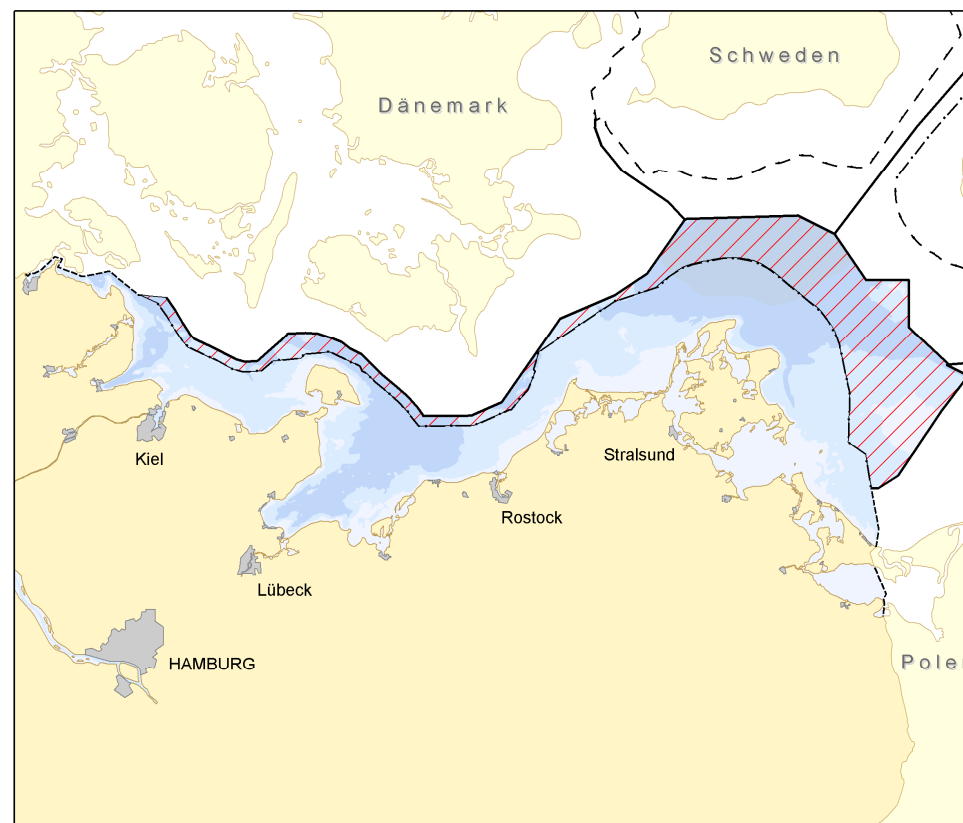


BUNDESAMT FÜR
SEESCHIFFFAHRT
UND
HYDROGRAPHIE

- EEZ not part of German territory
- Federal Government: licensing, planning

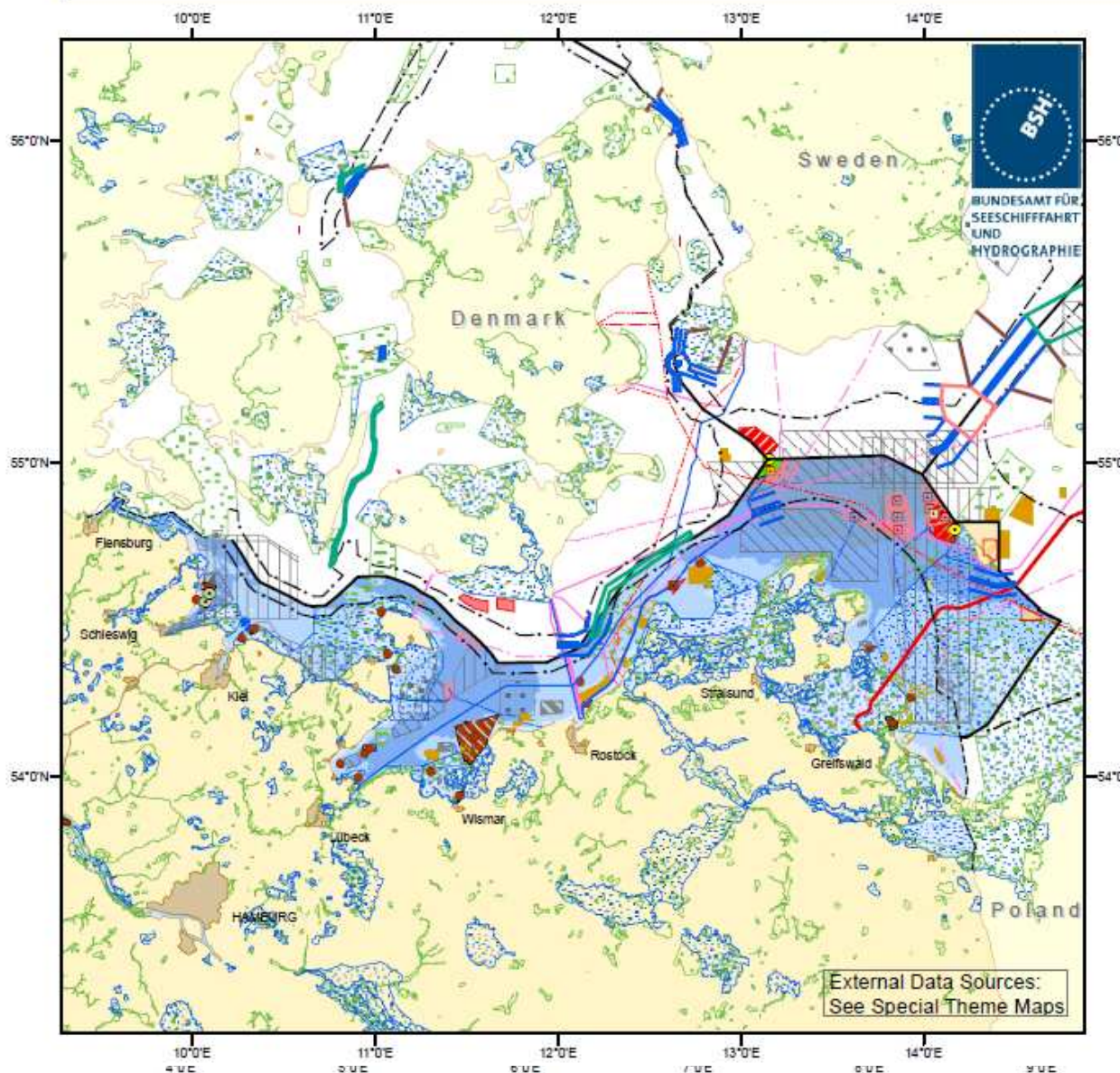


North Sea : 28.600 km²



Baltic Sea : 4.500 km²

Baltic Sea: Existing and Perspective Uses and Nature Conservation



Multitude of uses in/on/of the Sea

“Traditional” uses and activities:

- Shipping
- Fisheries incl. Aquaculture
- Oil and Gas Industry
- Sand and Gravel Extraction
- Pipelines
- Power & Telecommunication Cables
- Military training
- Scientific Research
- Nature Conservation Sites

“New” developments:

- Large-scale Offshore-Wind Farms
(target for German Sea Areas:
25.000 MW by 2030
➔ majority to be realised
in North Sea EEZ)

Regulatory Competence for MSP in the EEZ

| Internal Waters (landwards of baseline) | Territorial Sea (12 nm seawards of baseline) | Exclusive Economic Zone (max. 200 nm seawards of baseline) |
|--|---|--|
| <p>Full jurisdiction based on sovereignty of the coastal State</p> <p>→ <u>Full MSP jurisdiction</u></p> | <p>Full jurisdiction based on sovereignty of the coastal State</p> <p>→ <u>MSP jurisdiction limited by the right of innocent passage of foreign ships</u></p> | <p>Sovereign rights for the purpose of economic exploitation (resources, energy production etc.) - acc. to UNCLOS</p> <p><u>Jurisdiction for:</u></p> <ul style="list-style-type: none"> • Artificial islands, installations, structures • Scientific research • Environmental protection <p>→ <u>functionally limited MSP jurisdiction</u></p> |

- Guiding principle in Germany is a **sustainable spatial development**, which brings the **social and economic demands regarding space in line with its ecological functions** and leads to a permanent, large scale balanced order (§ 1 ROG).

MSP – German spatial planning for the EEZ

2005ff:

- procedure started in 2005
- questionnaire on uses and interests
- scoping meeting concerning SEA report
- ➔ BSH drafted maritime spatial plan incl. strategic environmental report (SEA directive)

2008:

- public participation in summer 2008 (two hearings),
- international consultation

2009

- new round of participation in May 2009 because of changes
- legal ordinance (incl. spatial plan) for EEZ of North Sea set into force on 26th September 2009
- legal ordinance (incl. spatial plan) for the EEZ of the Baltic Sea set into force on 19th December 2009

Main Driver



BUNDESAMT FÜR
SEESCHIFFFAHRT
UND
HYDROGRAPHIE

Renewable incl. Offshore Wind Energy Policy*

- **Jan. 2002 – Government Strategy Paper on Offshore Wind Energy (OWE):** 500 MW by 2006; 2 – 3 GW by 2010; 20 – 25 GW by 2025 – 30
- **Dec. 2006 – Energy Law Revision** – grid connection obligation for TSPs
- **IEKP (Integrated Energy and Climate Programme of 2007):** 25 GW target of offshore wind energy by 2030 confirmed
- **EEG (Renewable Energy Act) Revision of 2008:** 30 % of German electricity supply from RED by 2020, higher Feed-In-Tariff for OWE
- **Energy Strategy Paper of 2010** – confirmed 25 GW target, min. 80 % RES share by 2050, 10-Points-Immediate-Action-Programme
- **June 2011 – revised Energy Legislation of 2011** (post-Fukushima), Nuclear Phase-out by 2022, incl. Renewable Energy Act revision: min. 35 % from RES by 2020 (25 % in 2012); National Grid Planning (onshore)
- **Nov./Dec. 2012 – Energy Law revision, „system change“ for offshore grid**, incl. liability regime and a new offshore-grid development plan, i.e. synchronised development of OWF with offshore grids



*Compilation: A. Wagner,
Stiftung Offshore Windenergie

Main Drivers



BUNDESAMT FÜR
SEESCHIFFFAHRT
UND
HYDROGRAPHIE

Spatial Claims for Offshore Wind Farms

- Target in D: 25.000 MW Offshore Wind energy by 2030 in the EEZ and the territorial sea
- Based on turbines with 3 bis 5 MW: 5.000 up to 8.000 turbines necessary (mid-term/long-term only > 5MW)
- Coverage of ca. 15 % of the German EEZ

BUT:

Need to keep open safe and efficient shipping routes
Need to protect Nature Conservation areas from conflicting activities



MSP – German spatial planning for the EEZ

General types of regulations:

- **planning target** (legally binding for sectorial planning on project level, e.g. wind farms)
- **planning principle** (guideline that needs to be particularly considered in the decision process)

Spatial designations – main Area types:

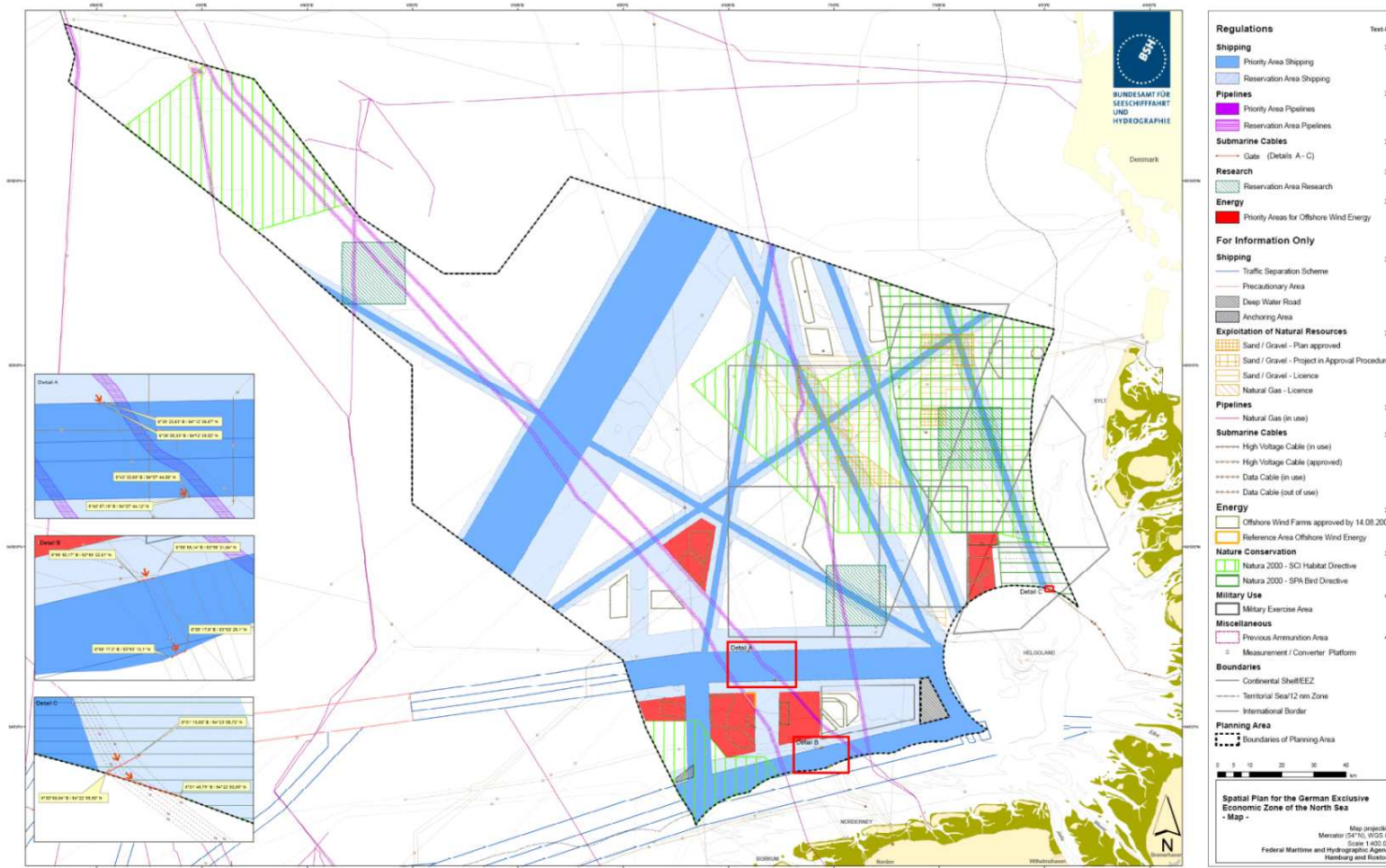
- **priority area** (Vorranggebiet): area reserved for a defined use, other conflicting uses are excluded
- **reservation area** (Vorbehaltsgebiet): area with a special weight for a defined use in the balancing of interests

with regard to

- ➔ economic and scientific use
- ➔ ensuring safety and efficiency of maritime traffic
- ➔ protection of the marine environment.

Maritime Spatial Plan EEZ North Sea (2009)

Spatial Plan for the German Exclusive Economic Zone of the North Sea - Map -

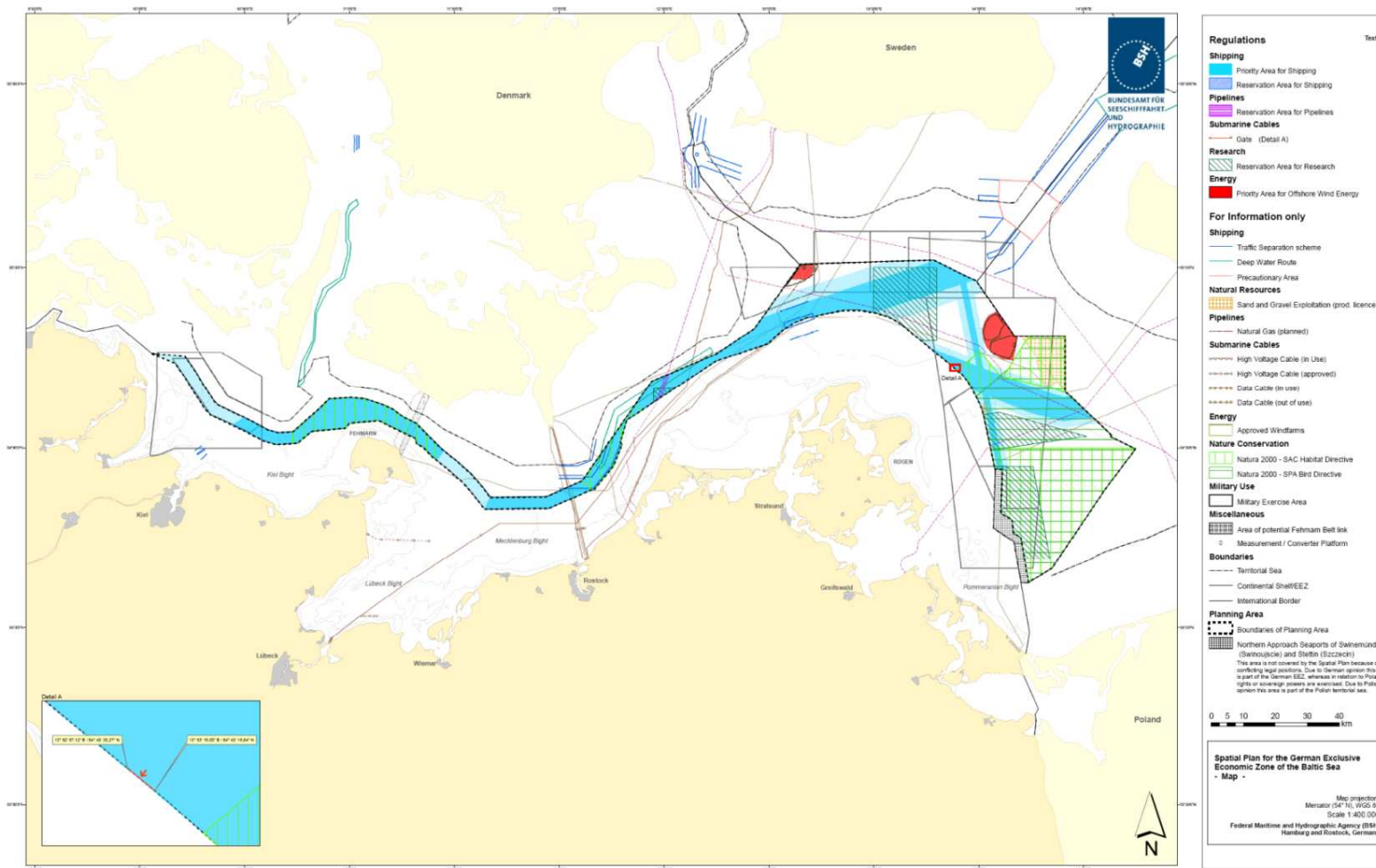


Sets Targets (legally binding) and Objectives for Spatial Development: e.g.:

- Priority areas for wind energy (red)
- Shipping corridors to be safeguarded
- no turbines in Natura 2000 areas
- gates (EEZ – 12nm Zone) for electricity cables

Maritime Spatial Plan EEZ Baltic Sea (2009)

Spatial Plan for the German Exclusive Economic Zone of the Baltic Sea - Map -



Sets Targets (legally binding) and Objectives for Spatial Development: e.g.:

- Priority areas for wind energy (red)
- Shipping corridors to be safeguarded
- no turbines in Natura 2000 areas
- gates (EEZ – 12nm Zone) for electricity cables

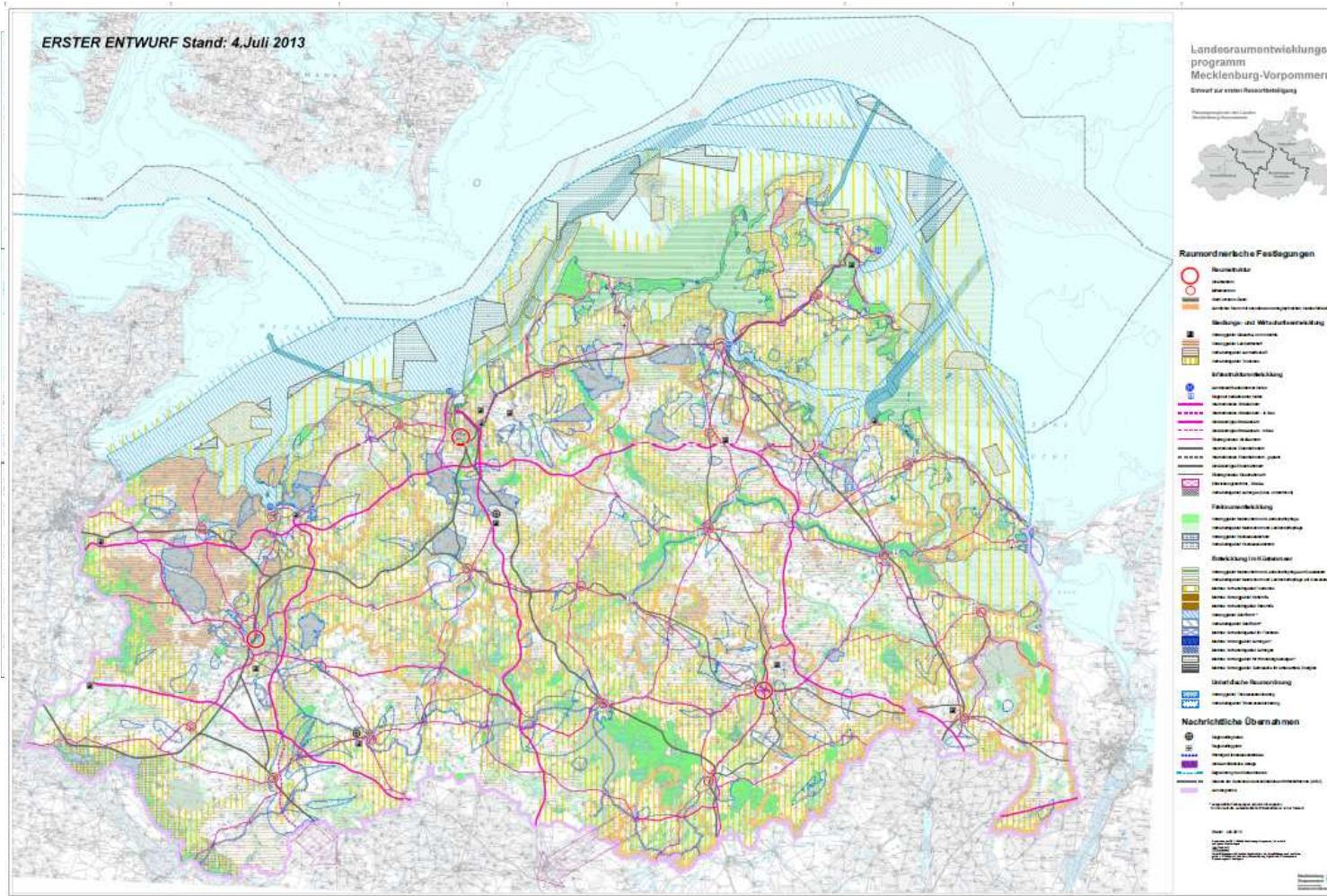
Schleswig-Holstein

Spatial Development Programme (LEP) 2010



Mecklenburg-Vorpommern

Draft Spatial Development Programme (Summer 2013 - due to further national and international consultation)

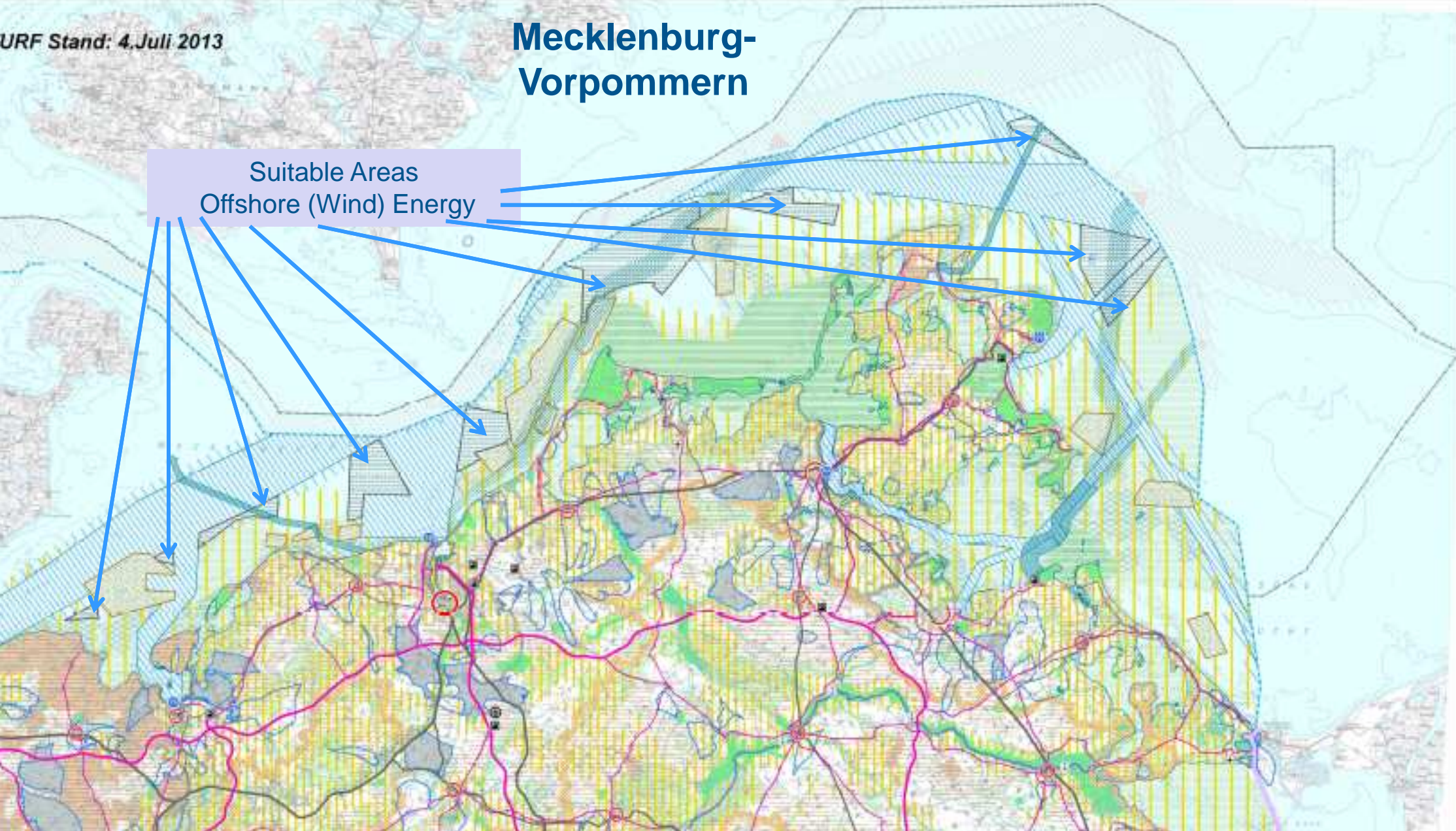


Territorial Sea

URF Stand: 4. Juli 2013

Mecklenburg- Vorpommern

Suitable Areas
Offshore (Wind) Energy

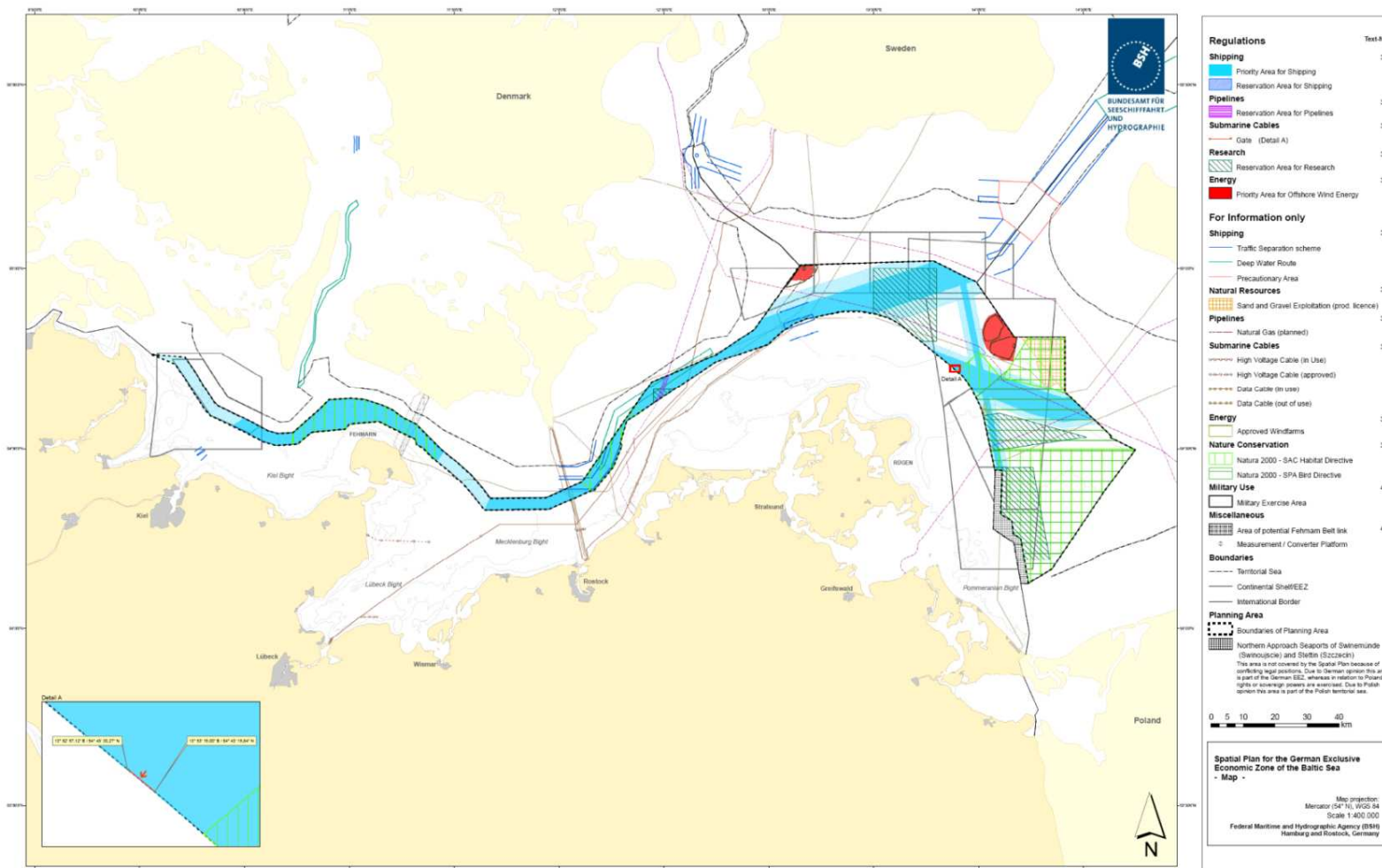


Maritime Spatial Plan EEZ Baltic Sea (2009)



BUNDESAMT FÜR
SEESCHIFFFAHRT
UND
HYDROGRAPHIE

Spatial Plan for the German Exclusive Economic Zone of the Baltic Sea - Map -



Offshore Wind Farm Development North Sea

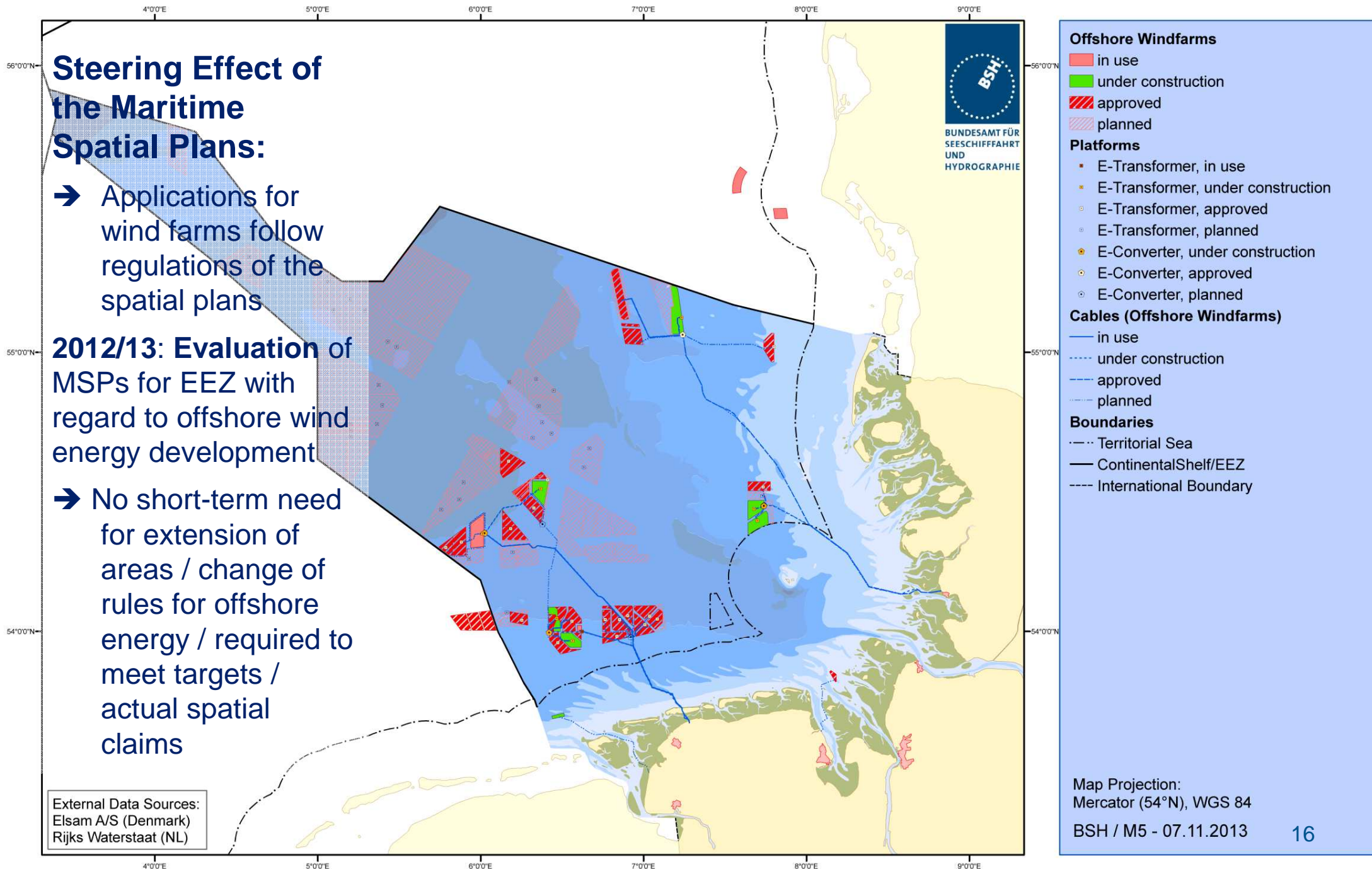
Steering Effect of the Maritime Spatial Plans:

➔ Applications for wind farms follow regulations of the spatial plans

2012/13: Evaluation of MSPs for EEZ with regard to offshore wind energy development

➔ No short-term need for extension of areas / change of rules for offshore energy / required to meet targets / actual spatial claims

External Data Sources:
Elsam A/S (Denmark)
Rijks Waterstaat (NL)



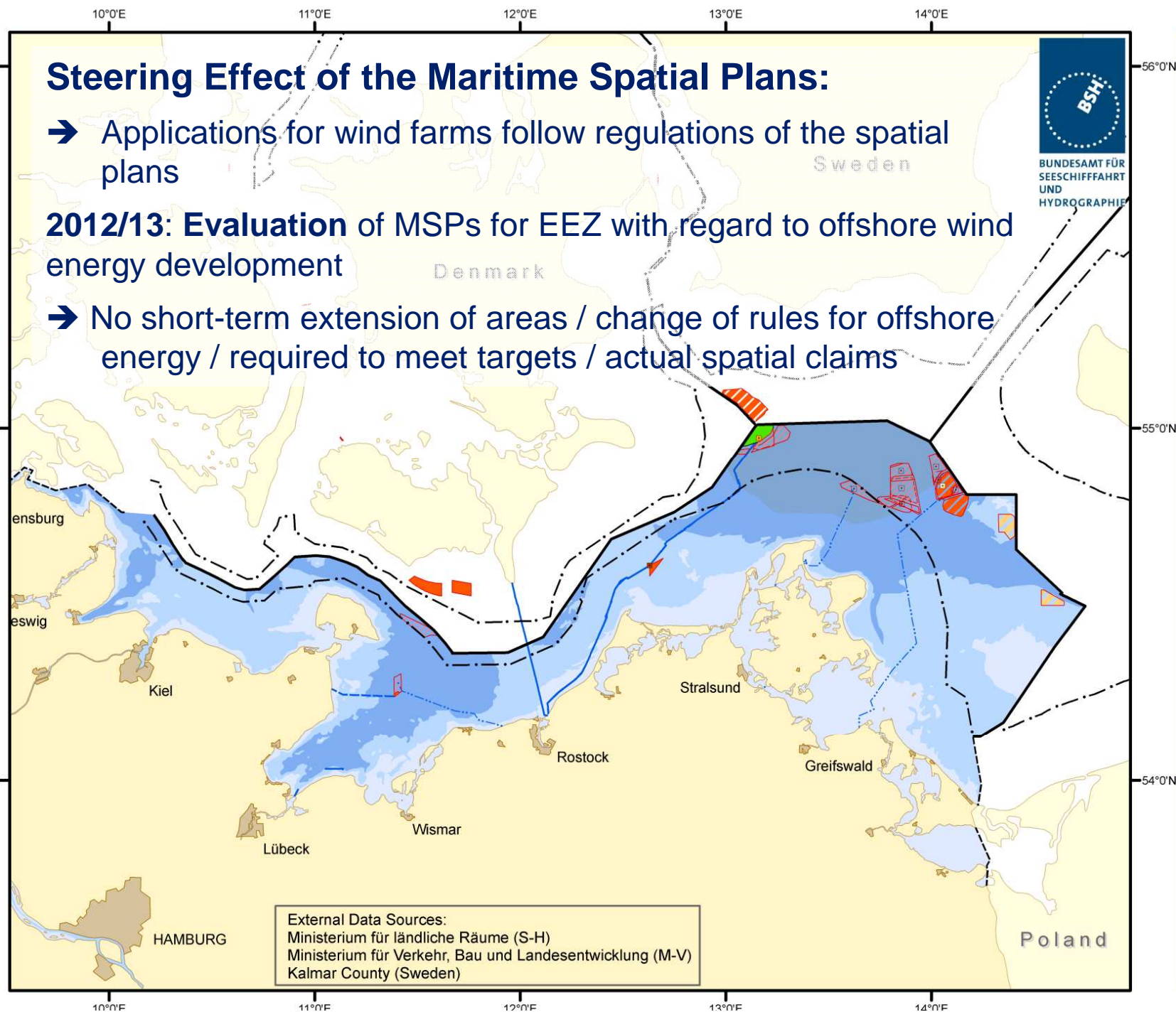
Offshore Wind Farm Development Baltic Sea

Steering Effect of the Maritime Spatial Plans:

➔ Applications for wind farms follow regulations of the spatial plans

2012/13: Evaluation of MSPs for EEZ with regard to offshore wind energy development

➔ No short-term extension of areas / change of rules for offshore energy / required to meet targets / actual spatial claims



Offshore Windfarms

- in use
- under construction
- ▨ approved
- ▨ application submitted
- ▨ denied

Energy-Platforms

- E-Transformer, in use
- E-Transformer, under construction
- E-Transformer, approved
- E-Transformer, application submitted

Cables (Offshore Windfarms)

- in use
- under construction
- approved
- application submitted

Boundaries

- Continental Zone/EEZ
- Territorial Sea/12 nm Zone
- International Boundary

Geodetic Datum: WGS 84
Map Projection: Mercator (54°N)

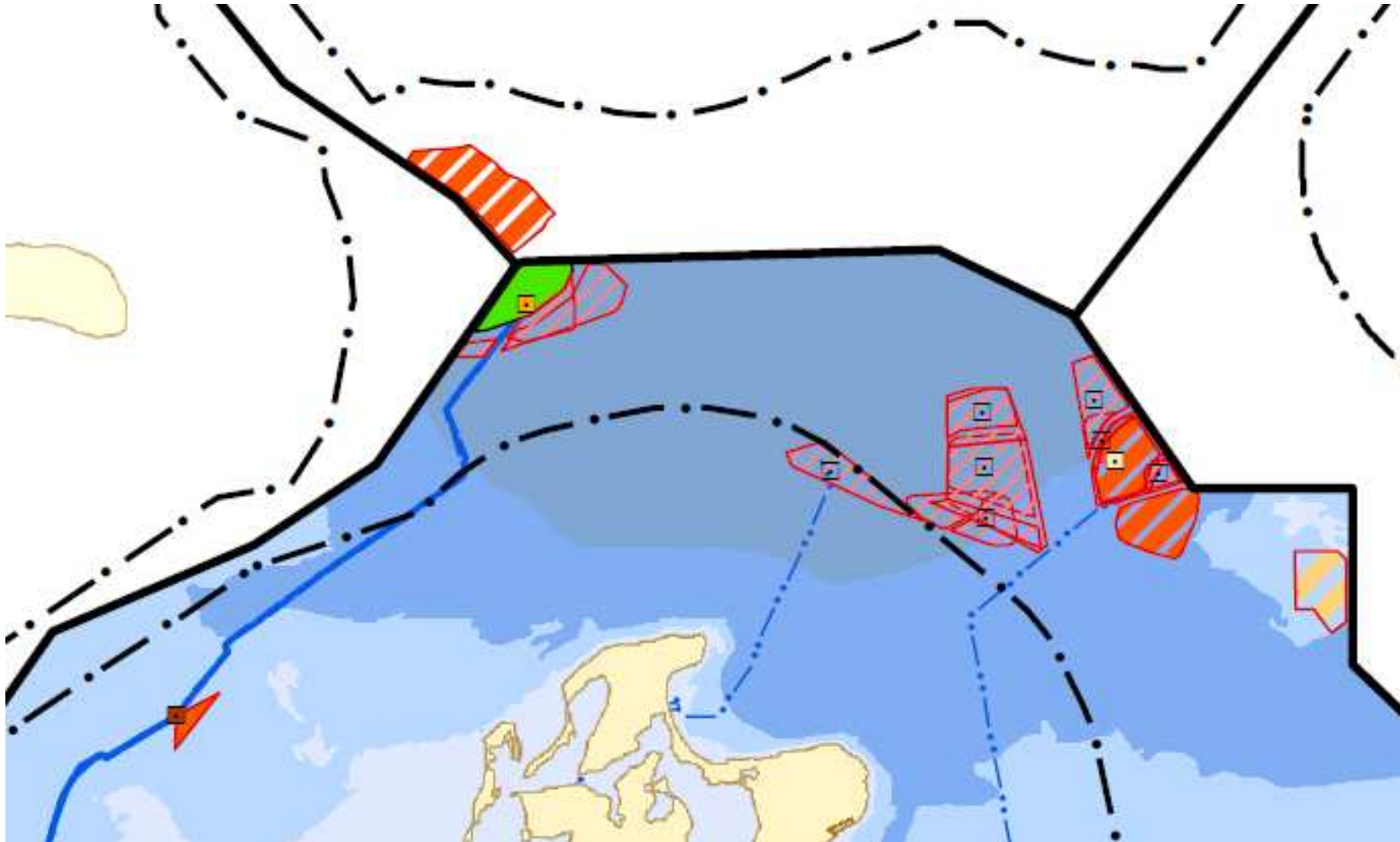
BSH / M5 - 07.11.2013

External Data Sources:
Ministerium für ländliche Räume (S-H)
Ministerium für Verkehr, Bau und Landesentwicklung (M-V)
Kalmar County (Sweden)

Offshore Wind Farm Development Baltic Sea



BUNDESAMT FÜR
SEESCHIFFFAHRT
UND
HYDROGRAPHIE

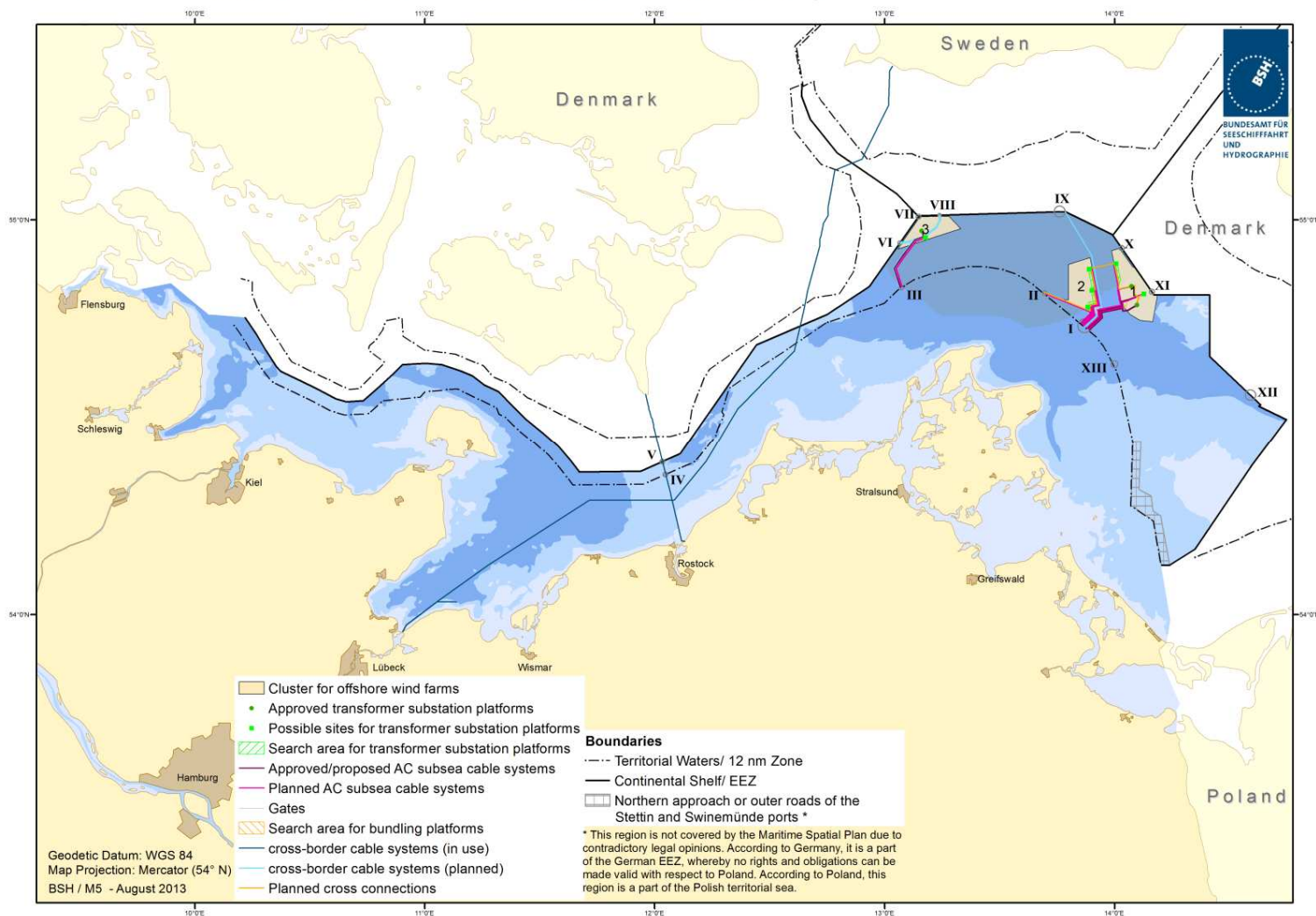


Offshore Grid Plan – Revised Draft August 2013



BUNDESAMT FÜR
SEESCHIFFFAHRT
UND
HYDROGRAPHIE

Revised Draft of Spatial Offshore Grid Plan Baltic Sea EEZ 2013 overall planning

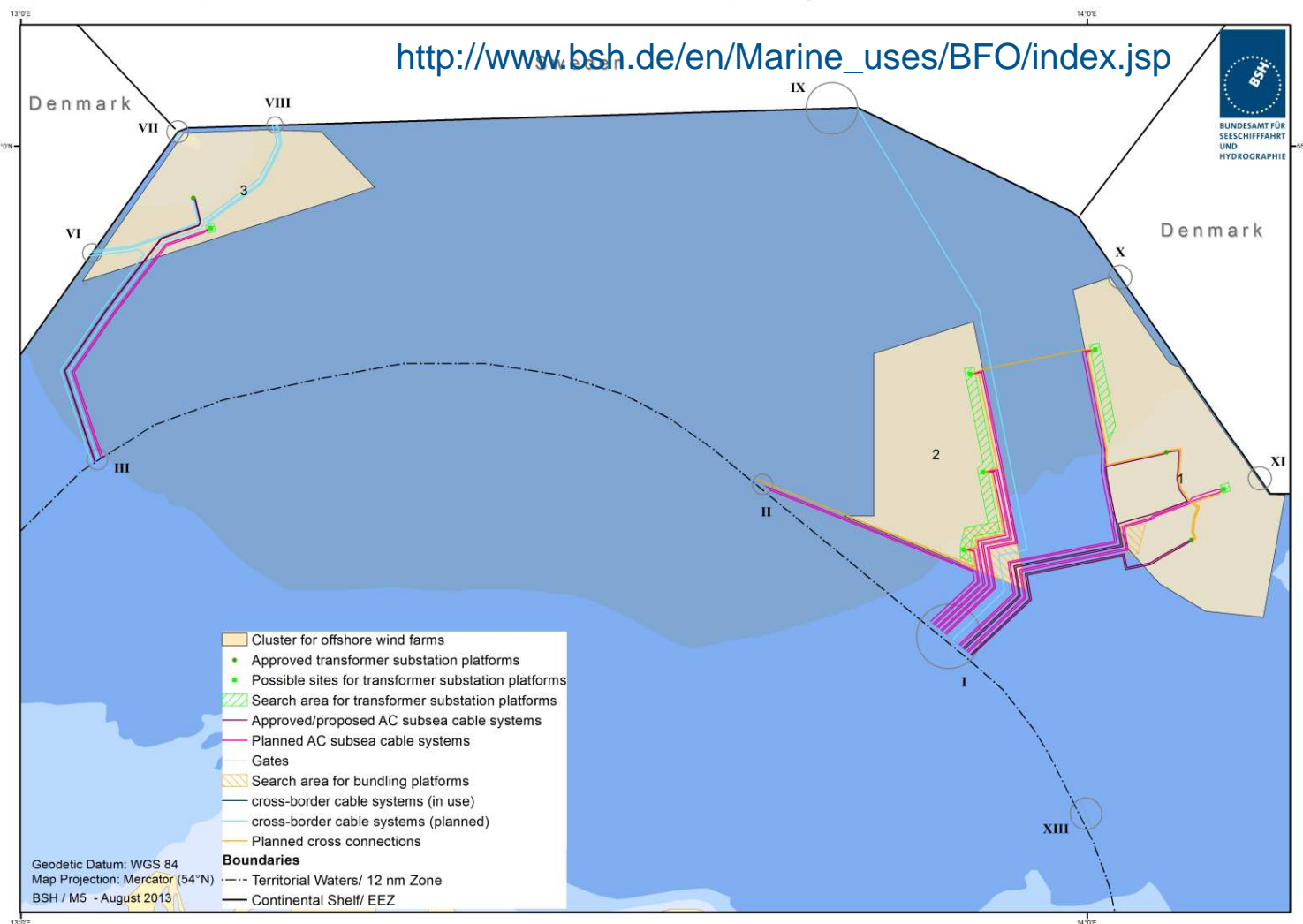


Offshore Grid Plan – Revised Draft August 2013



BUNDESAMT FÜR
SEESCHIFFFAHRT
UND
HYDROGRAPHIE

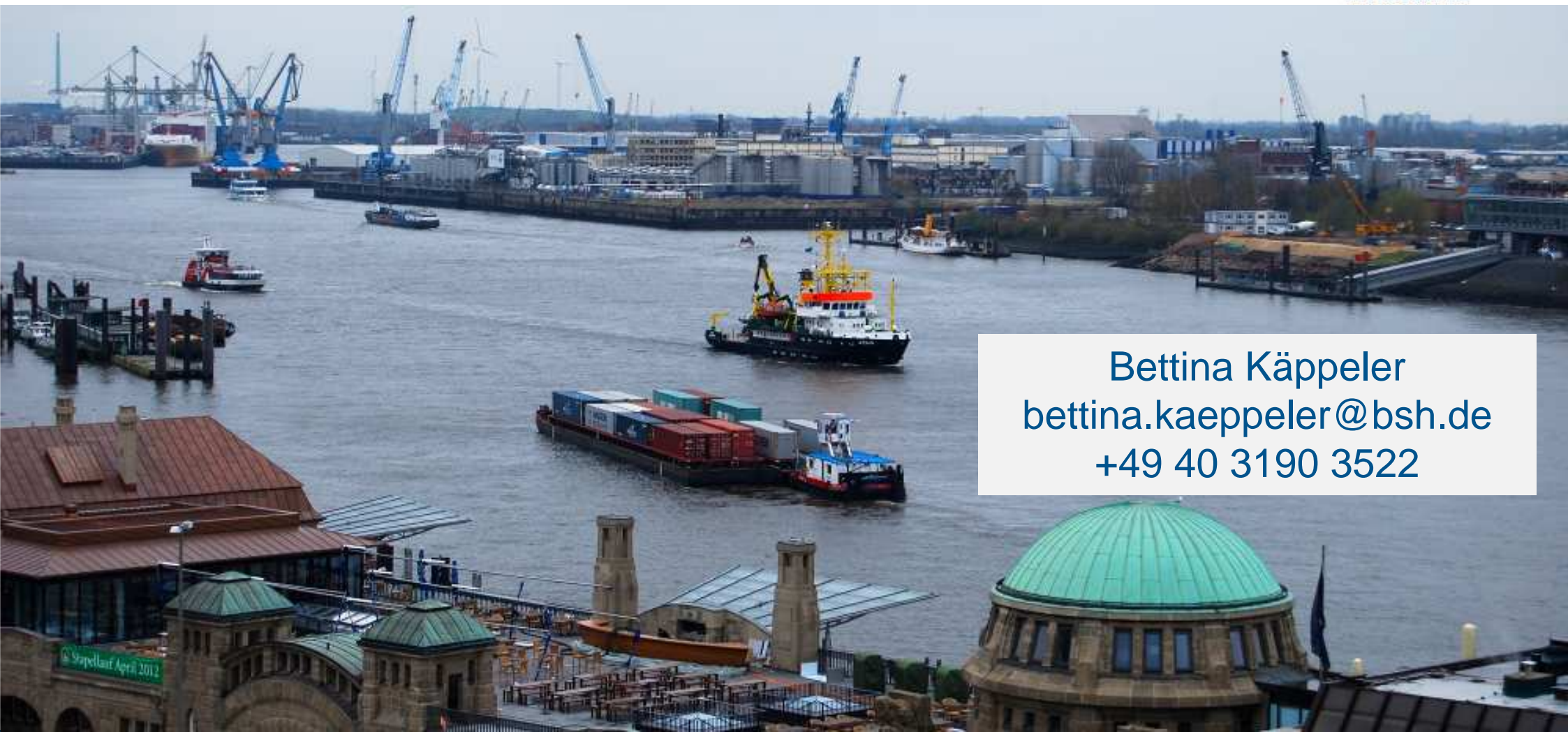
Revised Draft of Spatial Offshore Grid Plan-EEZ Baltic Sea 2013 overall planning



Thank You !



BUNDESAMT FÜR
SEESCHIFFFAHRT
UND
HYDROGRAPHIE



Bettina Käppeler
bettina.kaeppler@bsh.de
+49 40 3190 3522