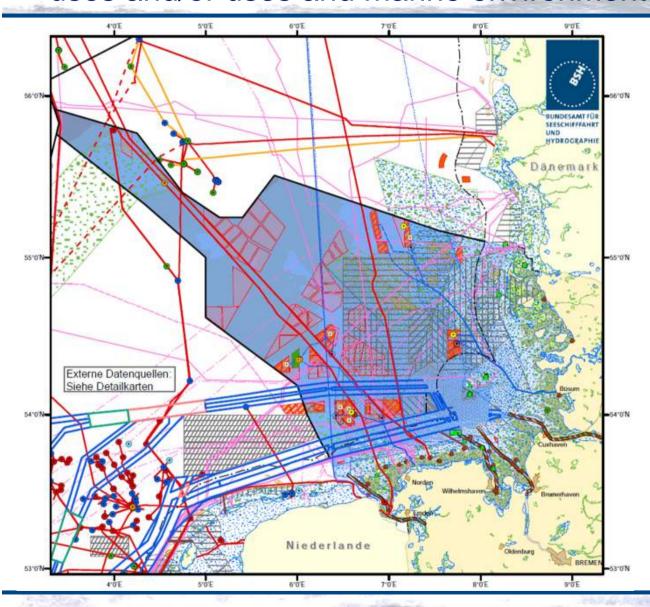




Maritime Spatial Planning and Offshore Windenergy Maritime Talks ITLOS, 24th March 2012 Dr. Nico Nolte, BSH

Multitude of uses on the sea; potential conflicts between uses and/or uses and marine environment





Multitude of uses on the sea

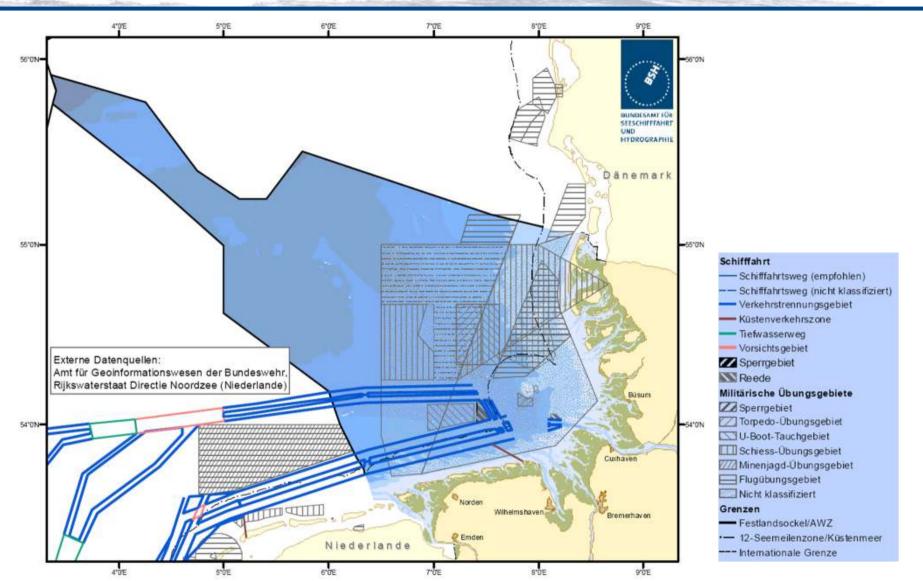
Traditional uses and activities:
Shipping, fisheries
oil and gas industry
sand and gravel extraction
Pipelines, power &
telecommunication cables
military training, scientific
research, nature conservation
sites

New developments: large scale Offshore-Windparks (25.000 MW by 2030)

Shipping and military training areas



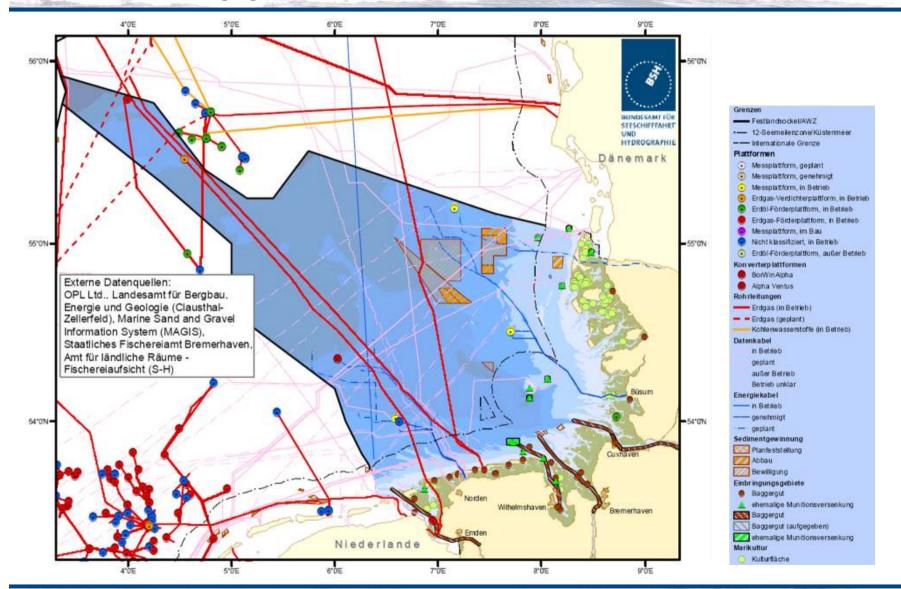
BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE



Platforms, pipelines, cables, sand extraction, mariculture



BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE



Spatial claims by Offshore Windparks



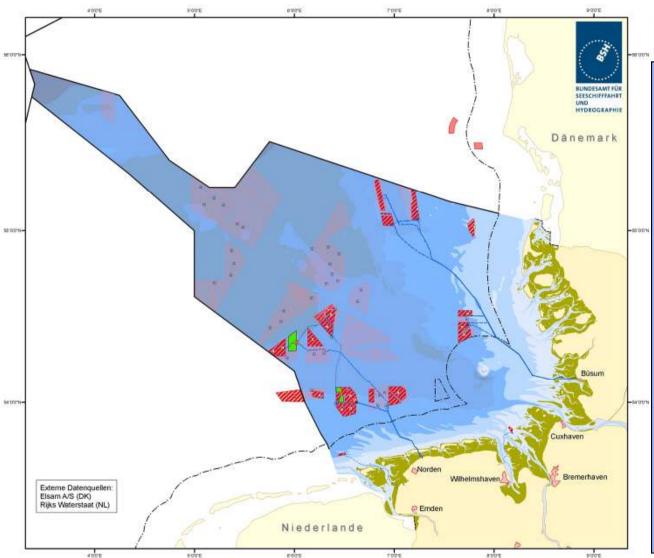
- Target in D: 25.000 MW Offshore Windenergy by 2030 in the EEZ and the territorial sea
- Based on turbines with 3 bis 5 MW: 5.000 up to 8.000 turbines necessary
- Renewable Energy Act: 35 % of the electricity supply must be from renewable energy by 2020
- Coverage of ca. 15 % of the German EEZ



Windenergy projects: more than 100



BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE



Grenzen

---- Küstenmeer

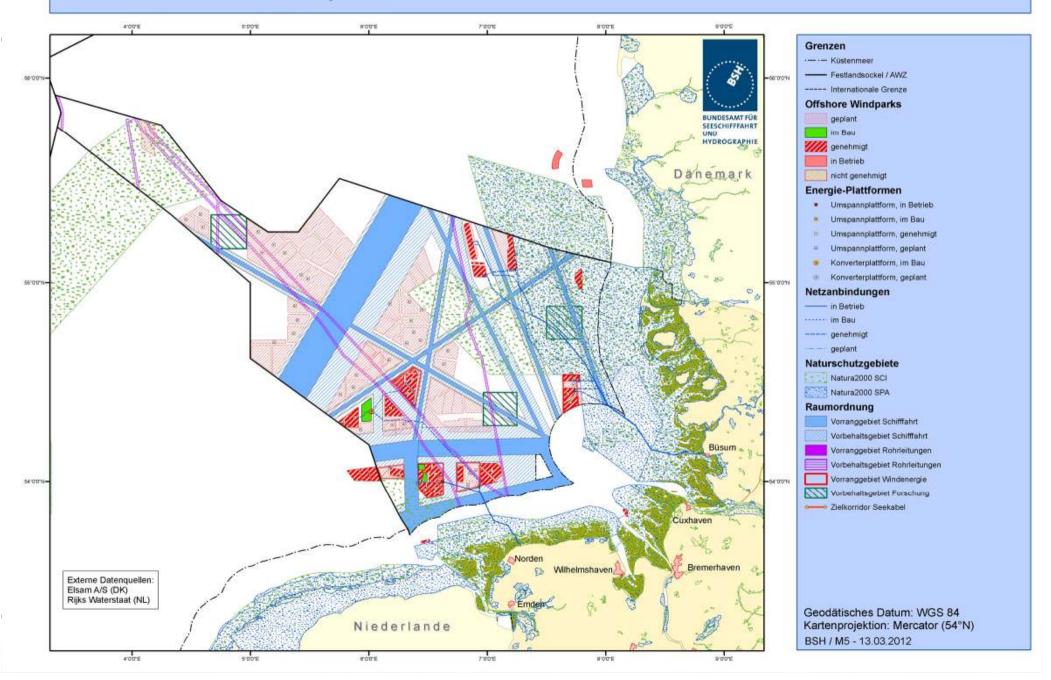
28 **licences** (2027 WEA, equals roughly 9.000 MW)

- 25 in North sea (1787 WEA)
- 3 in the Baltic sea (240 WEA)
- alpha ventus (Testfeld; 12 WEA) producing electricity;

76 applications for 5752 WEA

- BARD under construction
- feeding in high voltage grid;
- transport to consumers
- Offshore Supergrid
- Infrastructure onshore (harbours, suppliers, new industries)

Nordsee: Offshore Windparks



Permits Granted for Offshore Wind Farms

- Baltic Sea

HAMBURG

11'0'E



External Data Sources:

Kalmar County (Sweden)

12"0"E

Ministerium für ländliche Räume (S-H) Ministerium für Bau und Arbeit (M-V)

13°0'E



BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Map Projection: Mercator (54°N), WGS84

BSH / M5 - 04.03.2010

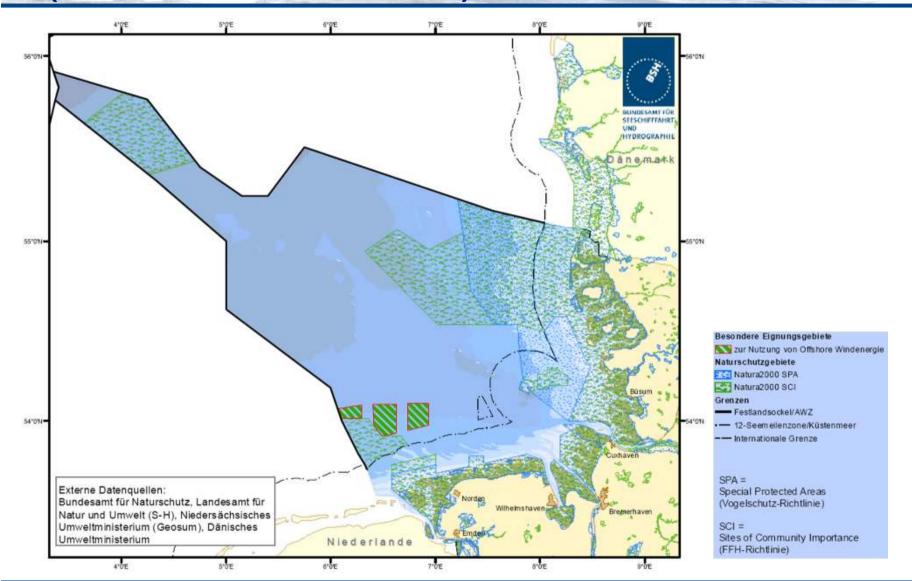
Poland

14"0"E

Natura 2000 areas & preferred areas for wind energy (marine facilities ordinance)

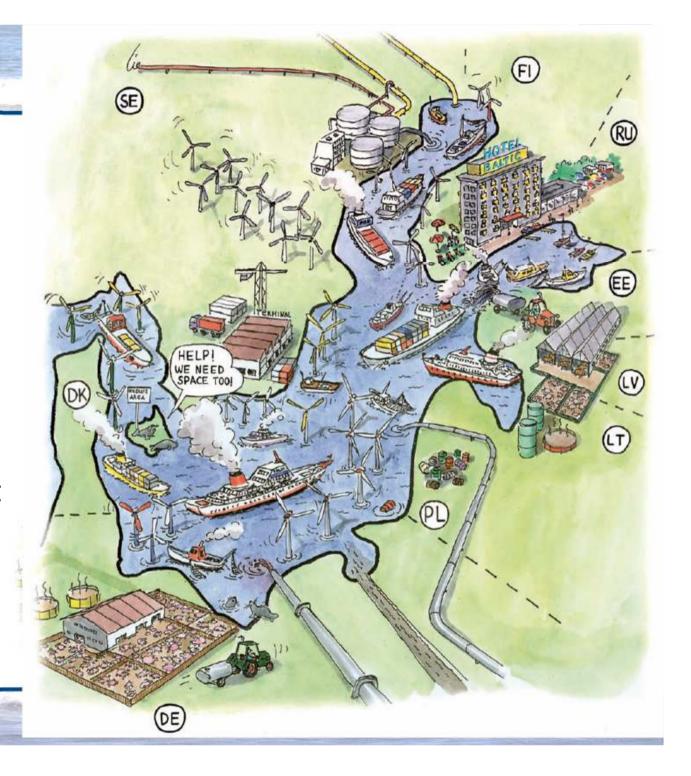


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Because of increasing use demands and potential conflicts between different uses and/or with marine nature conservation (ecosystem sea) there is a need for integrated, comprehensive sustainable management of human activities

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Background

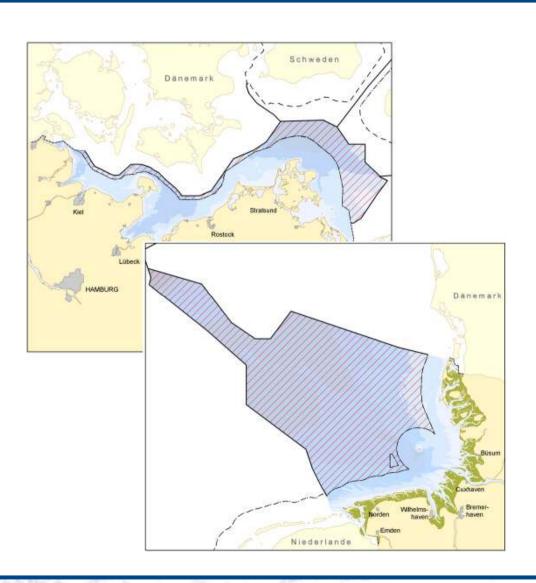


Maritime Spatial Planning can be a supporting tool

- forward looking
- long-term planning gives security to stakeholders and investors
- cross-sectoral, not fragmented; balancing of interests
- co-ordination of uses
- anticipating and solving spatial conflicts before they occur
- 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).
- UNESCO IOC definition: "MSP is a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic and social objectives that are usually specified through a political process."

German Exclusive Economic Zone





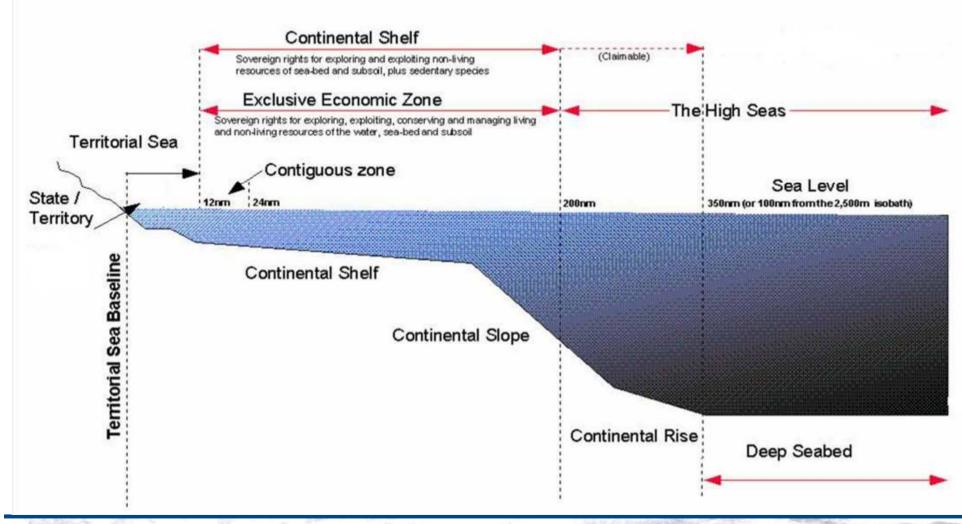
EEZ not part of German territory

Baltic Sea: 4.500 km²

North Sea: 28.600 km²



Diagram of Our Maritime Zones





Internal Waters (landwards of baseline)	Territorial Sea (12 nm seawards of baseline)	Exclusive Economic Zone (max. 200 nm seawards of baseline)
Full jurisdiction based on sovereignty of the coastal State	Full jurisdiction based on sovereignty of the coastal State	Sovereign rights for the purpose of exploring and exploiting, conserving and managing (resources, energy etc.)
□ complete MSP jurisdiction	☐ MSP jurisdiction limited by the right of innocent passage of foreign ships	Jurisdiction: - Artificial islands, installations, structures - Scientific research Environmental protection □ functionally limited MSP jurisdiction; MSP as voluntary self-restraint



Shipping

Territorial Sea: sovereignty limited by the right of innocent passage EEZ:

- freedom of navigation for all States
- Restrictions by coastal State: exercise of exclusive rights and jurisdiction (e.g. establishment of artificial islands, installations, structures and safety zones, Art. 60 UNCLOS)
- No unilateral definition of sea lanes for international navigation (competence of IMO)
- Art. 60 para 7 UNCLOS: Artificial islands, installations and structures and the safety zones around them may not be established where interference may be caused to the use of recognized sea lanes essential to international navigation

The German MSP example for the EEZ



The Federal Ministry of Transport, Building and Urban Development sets up in the German EEZ - within the framework of UNCLOS - targets (legally binding) and principles (guidelines that need to be particularly considered in the decision process) of spatial planning with regard to

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

MSP in EEZ must respect the freedoms in the EEZ (limited scope of MSP): freedom of navigation, overflight, laying of cables and pipelines The German Spatial Planning Act (Raumordnungsgesetz – ROG), which has been made applicable to the EEZ in 2004, provides the legal base for spatial planning in this sea area.

(Mecklenburg Vorpommern has issued MSP for the territorial sea in 2005)

The German spatial planning for the EEZ



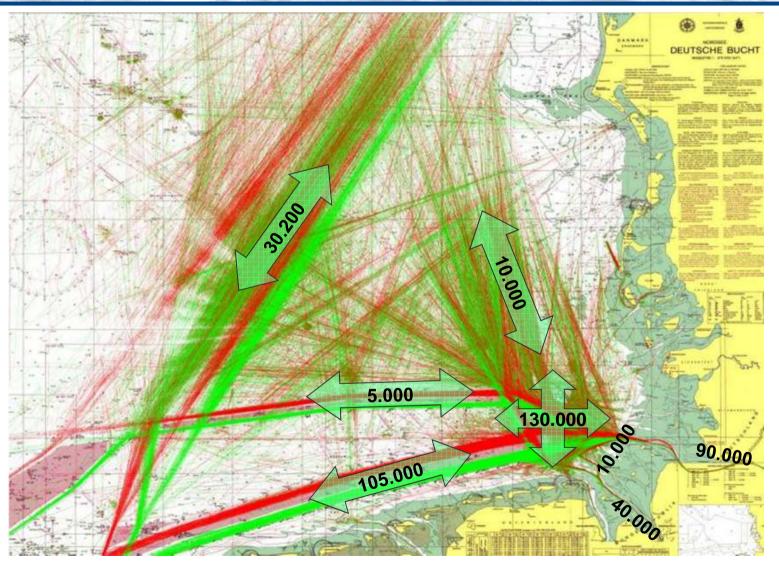
procedure started in 2005, questionnaire on uses and interests 2005: scoping meeting concerning SEA report BSH drafted maritime spatial plan incl. strategic environmental report (SEA directive)

- public participation in summer 2008 (two hearings), international consultation
- new round in May 2009 because of changes

- legal ordinance (incl. spatial plan) set into force on 26th September
 2009 for EEZ of North Sea
- legal ordinance (incl. spatial plan) set into force on 19th December
 2009 for the EEZ of the Baltic Sea

analysis of ship traffic



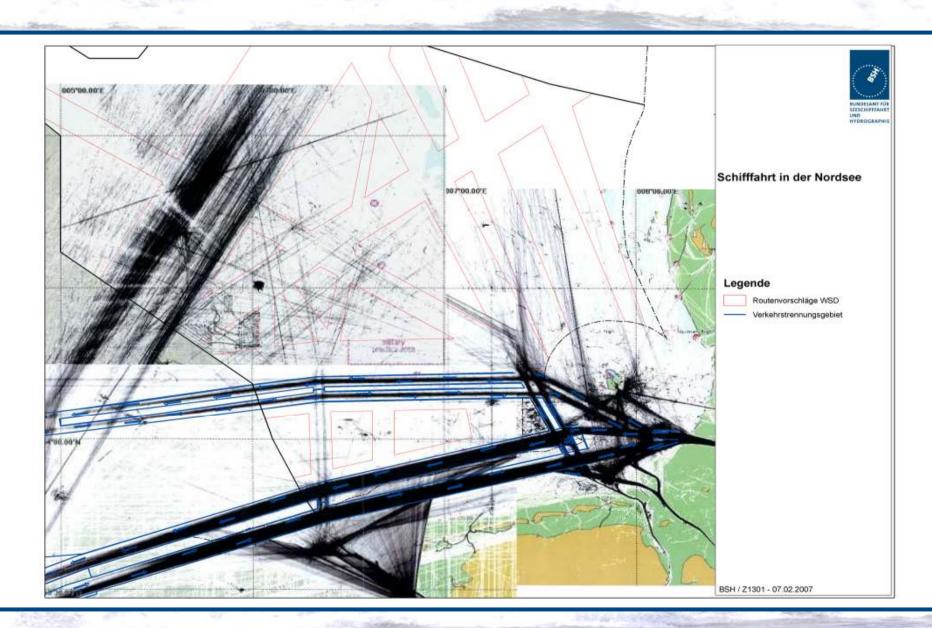


Analysis based on AIS-information by Water- and Shipping Administration

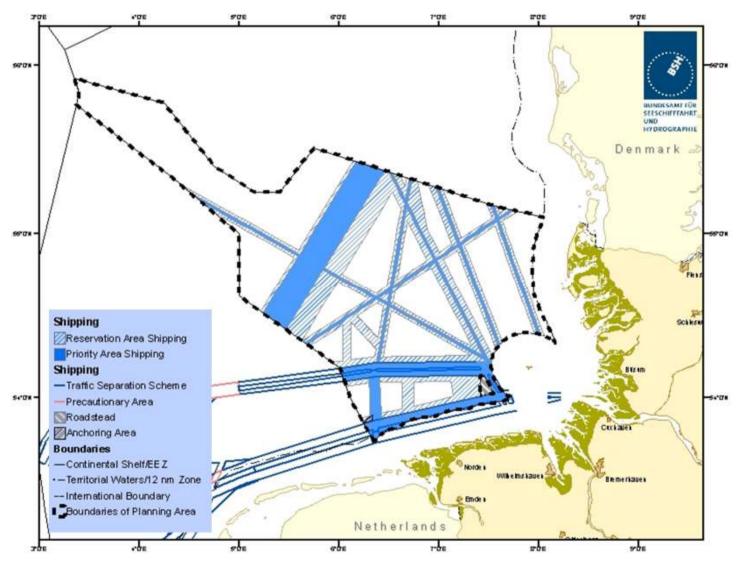
red: westbound traffic

green: eastbound traffic



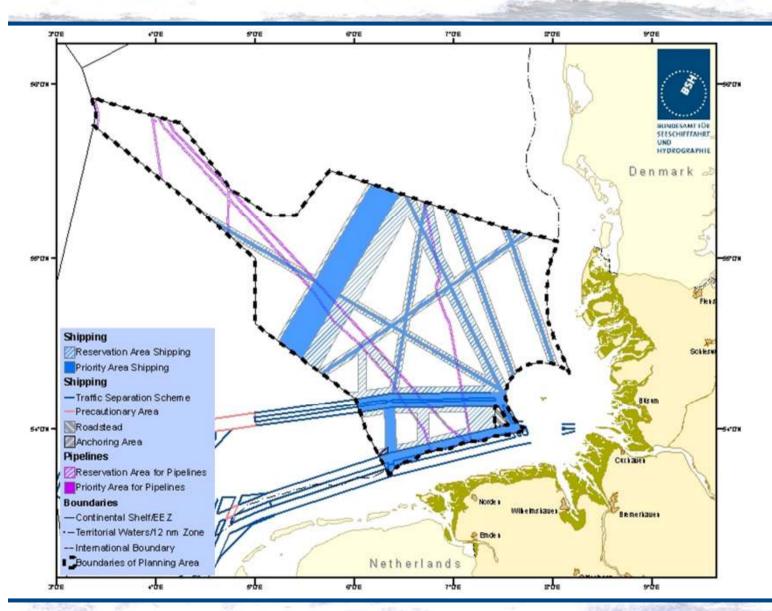






- Shipping lanes as basic structure of the draft (Art. 60 VII UNCLOS)
- priority areas: must be kept free from obstacles
- reservation areas: shipping has special weight in balancing process
- no traffic regulation!!!!! (protection of existing traffic)





Reservation area (500m) around existing pipelines

Strategic Environmental Assessment



For the first time a large scale SEA has been carried out in a sea area distant from the coast

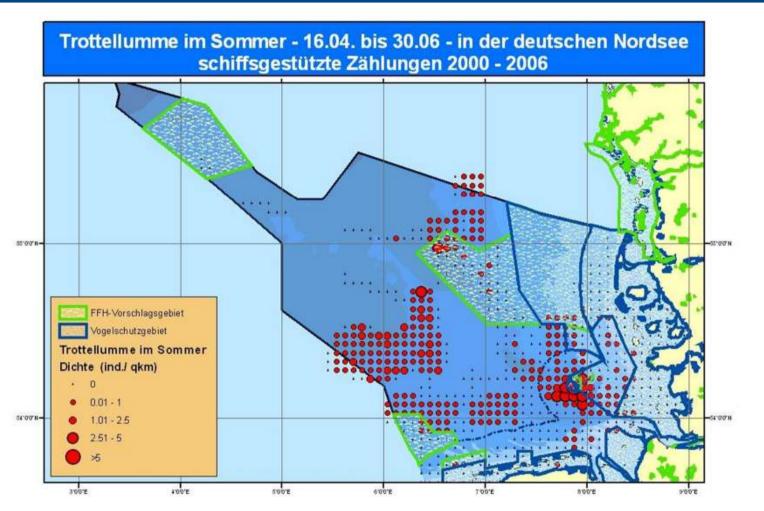
Main content of the report:

- description and evaluation of state of the marine environment
- description and assessment of any substantial impacts on the marine environment that are likely to be caused by the implementation of the plan

Result of SEA: no substantial impacts on the marine environment by the designations of the plan

Analysis for Strategic Environmental Assessment







Common guillemot (uria aalge): example for a large scale analysis by connecting information from private and public sources

Auswertung: Forschungs- und Technologiezentrum Westküste der Christian-Albrechts-Universität zu Kiel und BSH

Spatial Plan for the EEZ in the North sea



Raumordnungsplan für die deutsche ausschließliche Wirtschaftszone in der Nordsee - Kartenteil -





designations:

Priority areas for wind energy (red)

Priority areas for shipping (blue)

Importance of environment: no turbines in Natura 2000 areas!

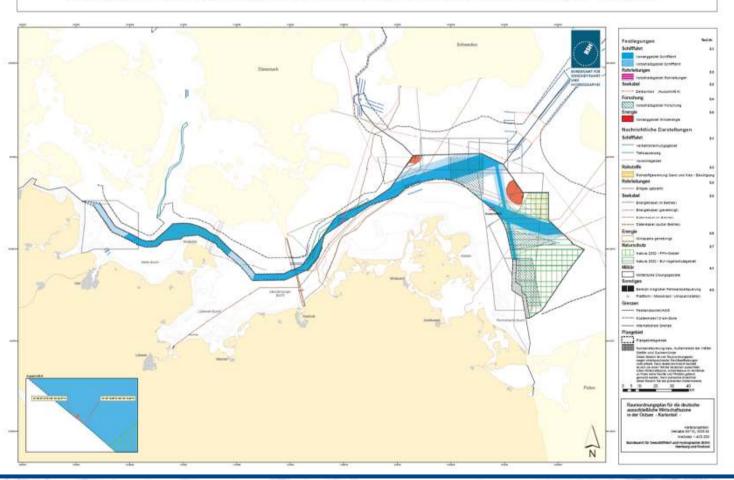
gates for electricity cables to the coast

set into force on 26th September 2009

Spatial Plan for German EEZ







Priority areas for shipping (blue)

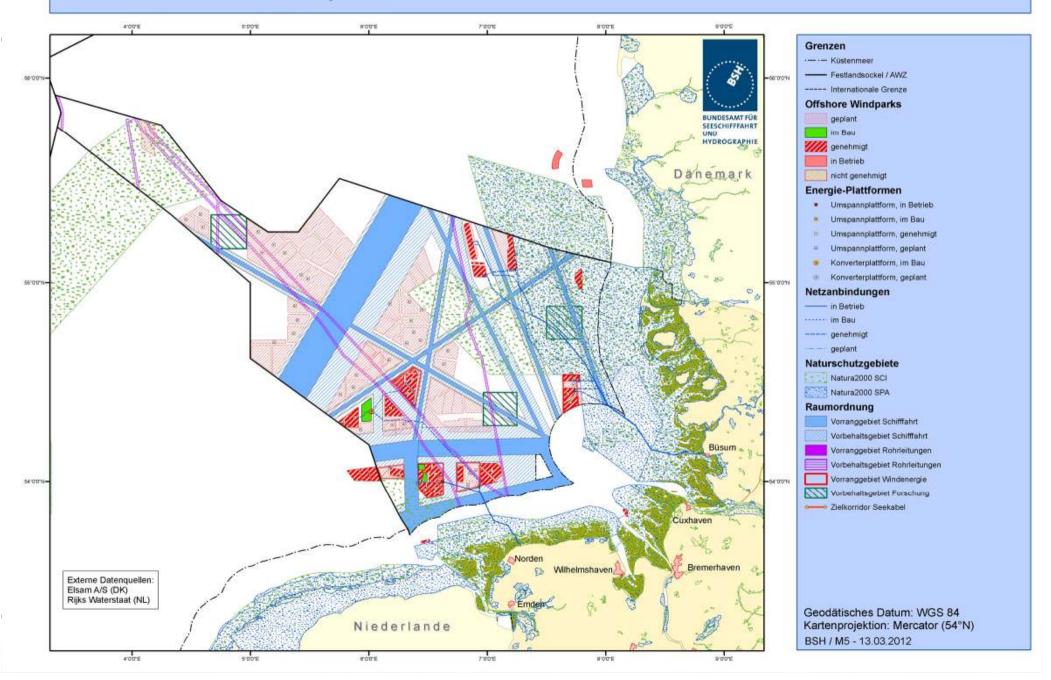
Priority areas for wind energy (red)

no turbines in Natura 2000 areas

gates for electricity cables

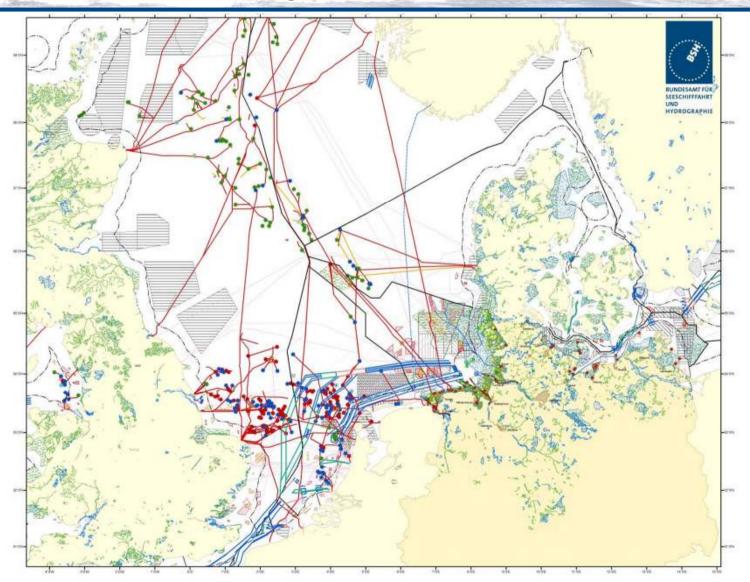
spatial plan set into legal force on 19th December 2009

Nordsee: Offshore Windparks



International Cooperation





Transboundary cooperation very important because of transnational uses and marine conservation issues



Thank you!

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