

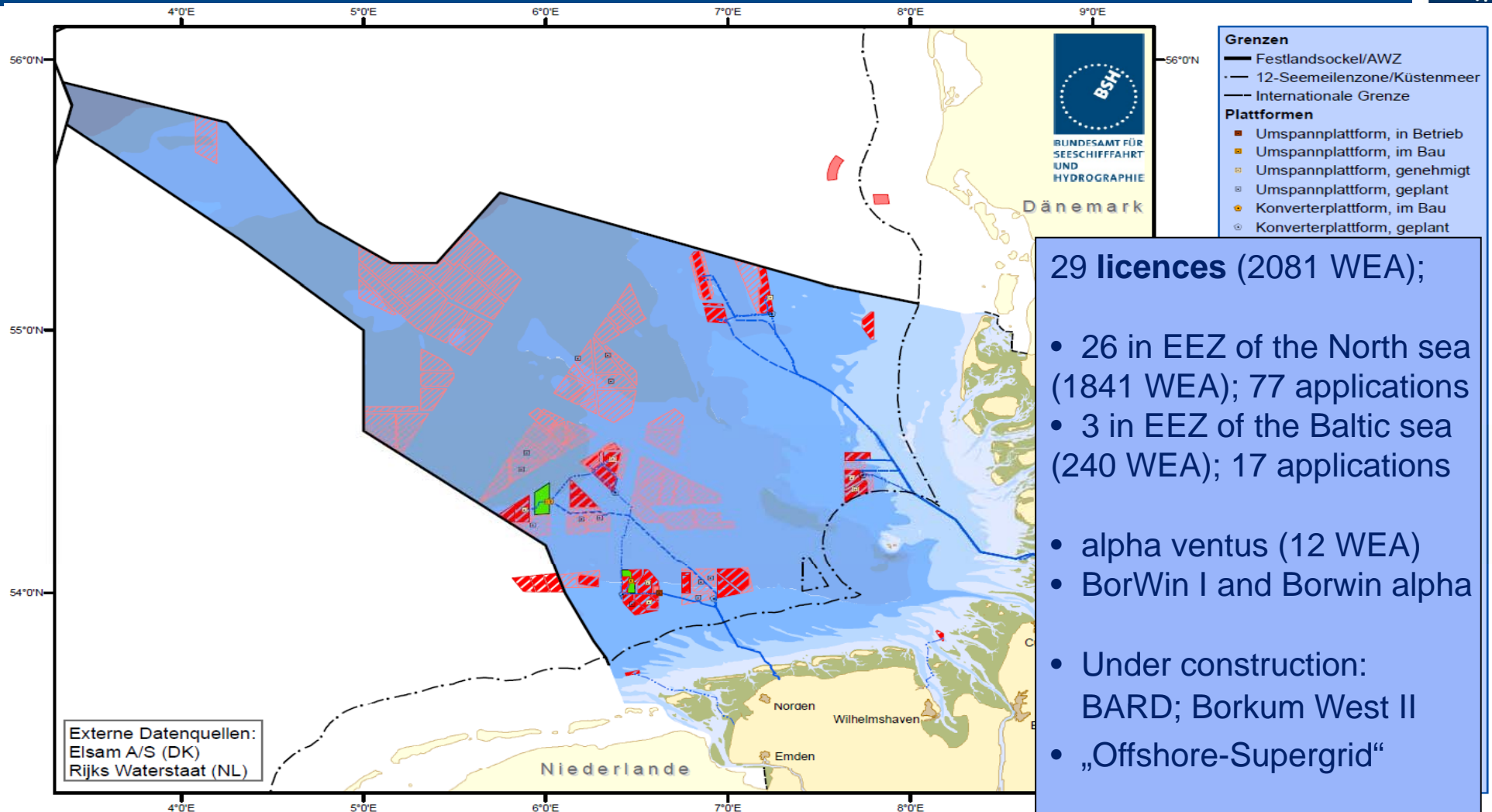


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Licensing requirements and conditions for Offshore Wind Energy in the German EEZ RAVE 2012 Dr. Nico Nolte



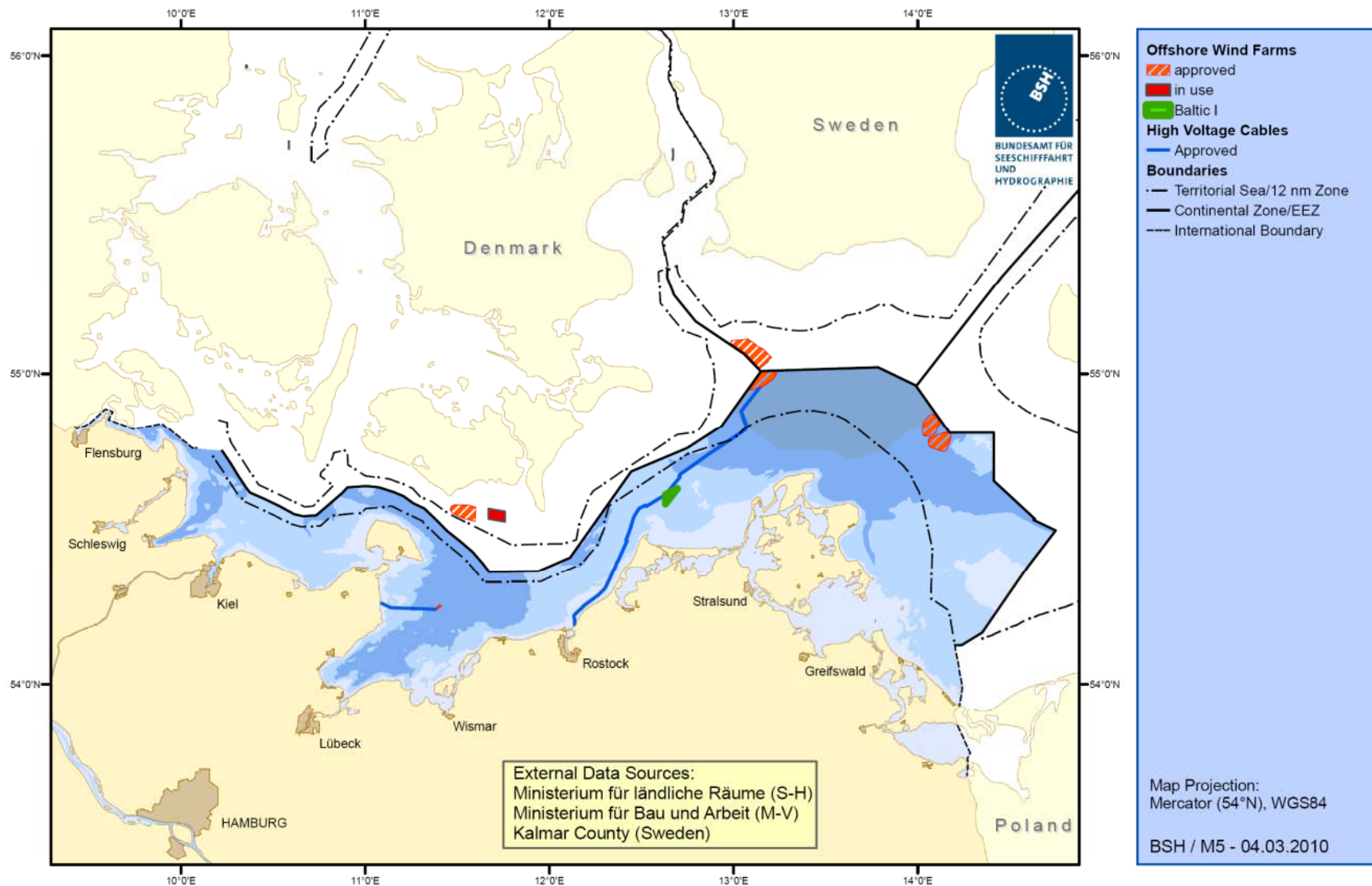
Offshore windfarm projects



Licences in the Baltic sea



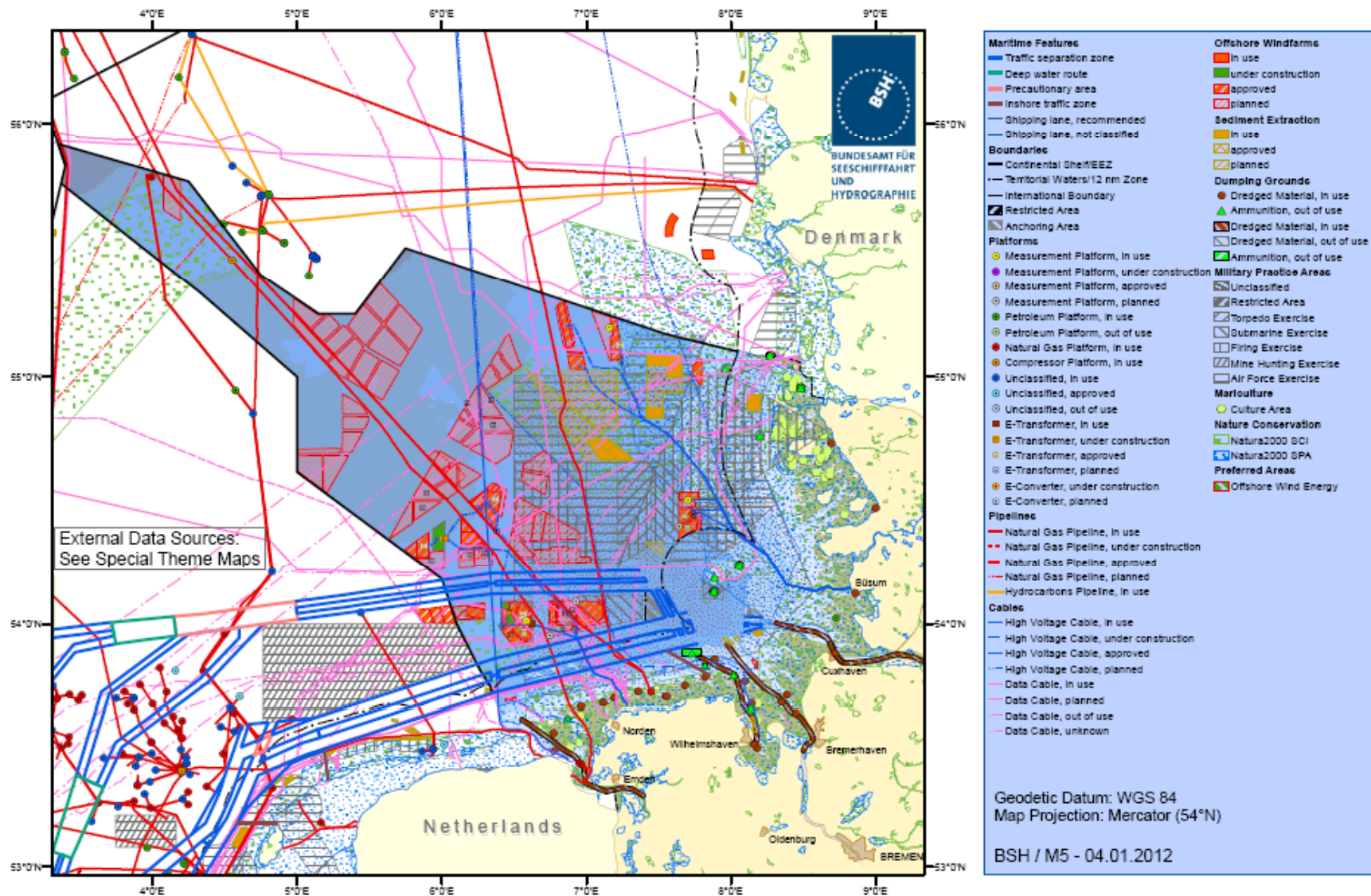
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German EEZ North Sea: All Uses



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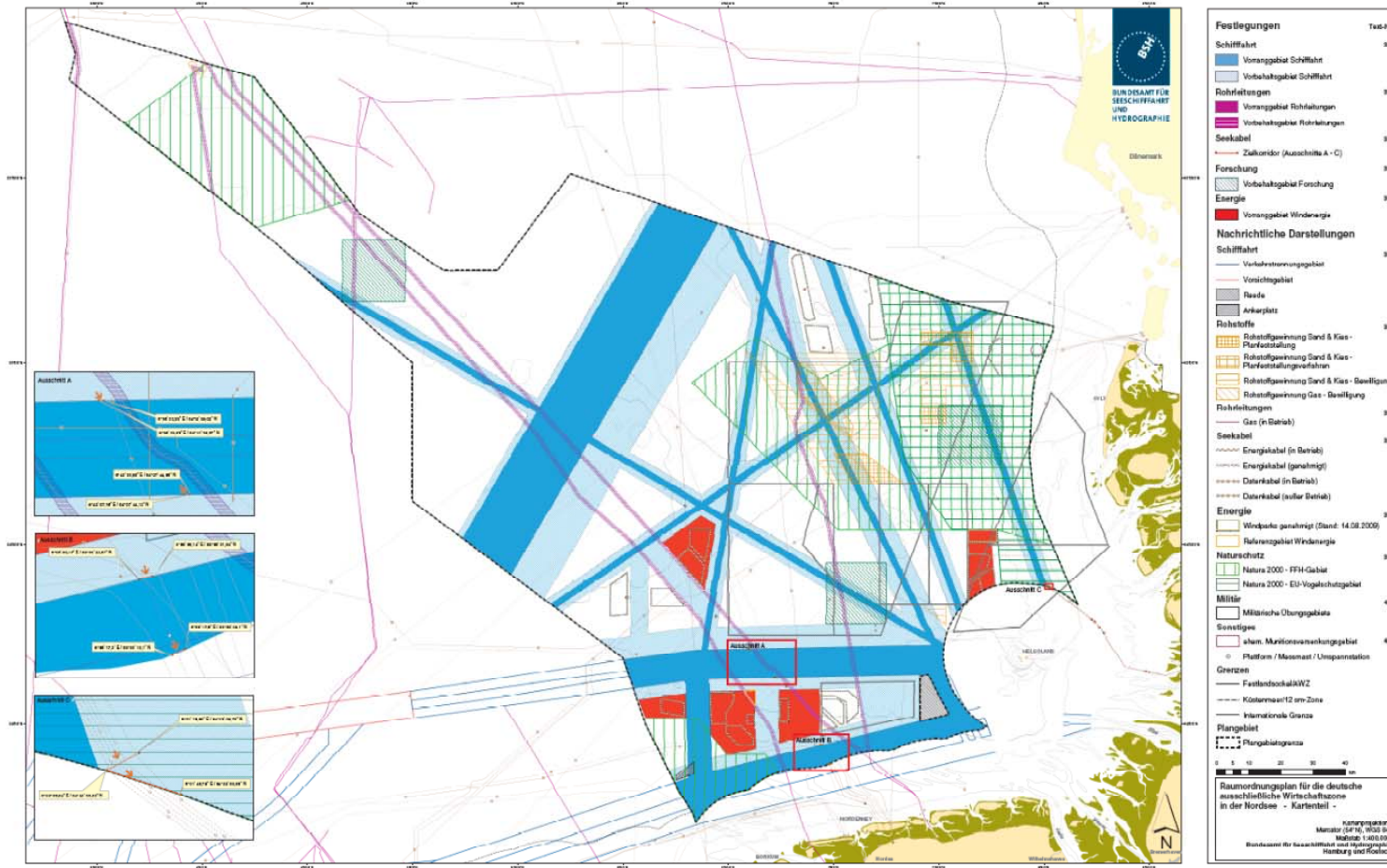


Spatial Plan for the German EEZ in the North Sea



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



Spatial
Planning for the
German EEZ of
North and
Baltic Sea
since 2009

Marine Facilities Ordinance (Seeanlagenverordnung)

Art. 5: Licence may just be granted if:

- **no** threat to the marine environment
- **no** threat to safety of shipping
- **no** threat to safety of national defence
- compliance with other public law regulations (e.g. spatial planning)

Approval-Procedure for installations in the EEZ:

- project **application**
- 1st round of participation: small group of authorities (e.g. shipping, nature conservation, mining)
- 2nd round of participation: broader circle including several NGOs and associations → **application conference** (scoping)
- 3rd round of participation: as 2nd round with participation of neighbouring states → **hearing according to EIA-act**
- **decision**

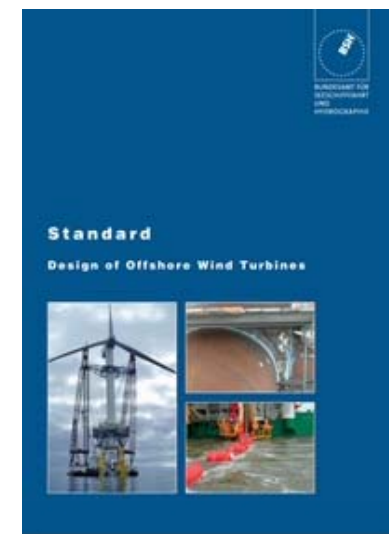
Standard Ground Investigations for Offshore Wind Farms

- since 1 August 2003
- geological and geophysical exploration of the seabed
- Requirements for the foundation of offshore wind turbines



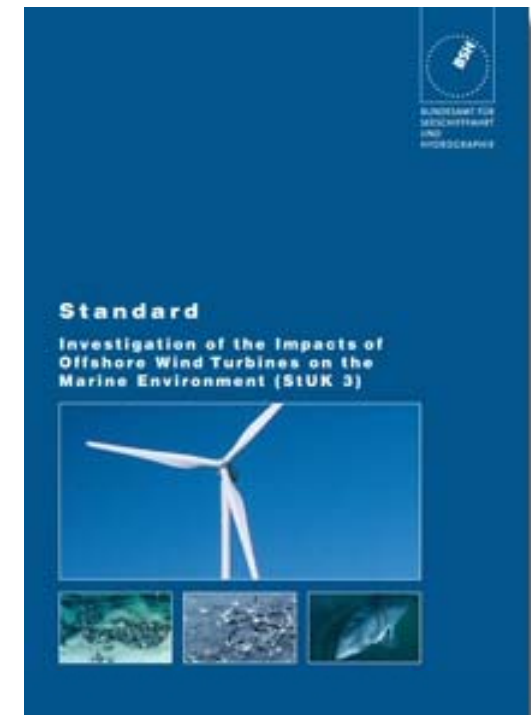
Standard Design of Offshore Wind Turbines

- since June 2007
- Requirements for the construction and certification of constructional components of an offshore windfarm



Standard Investigation of the Impacts of Offshore Wind Turbines on the Marine Environment (StUK)

- 3rd edition of February 2007
- sets out requirements for the Environmental Impact Study
- contains Standards for procedure of baseline survey as well as monitoring during construction and operation



Assessment of marine environment

intensive investigations of the features of the project area in the sea before approval

Monitoring program (several years) during construction and operation

investigated subjects:

- Benthos
- Fish
- Birds (resting birds, migratory birds)
- Marine mammals (harbour porpoise, seals)
- natural scenery
- cultural assets

Standard Contents of an Approval with regard to Nature Conservation

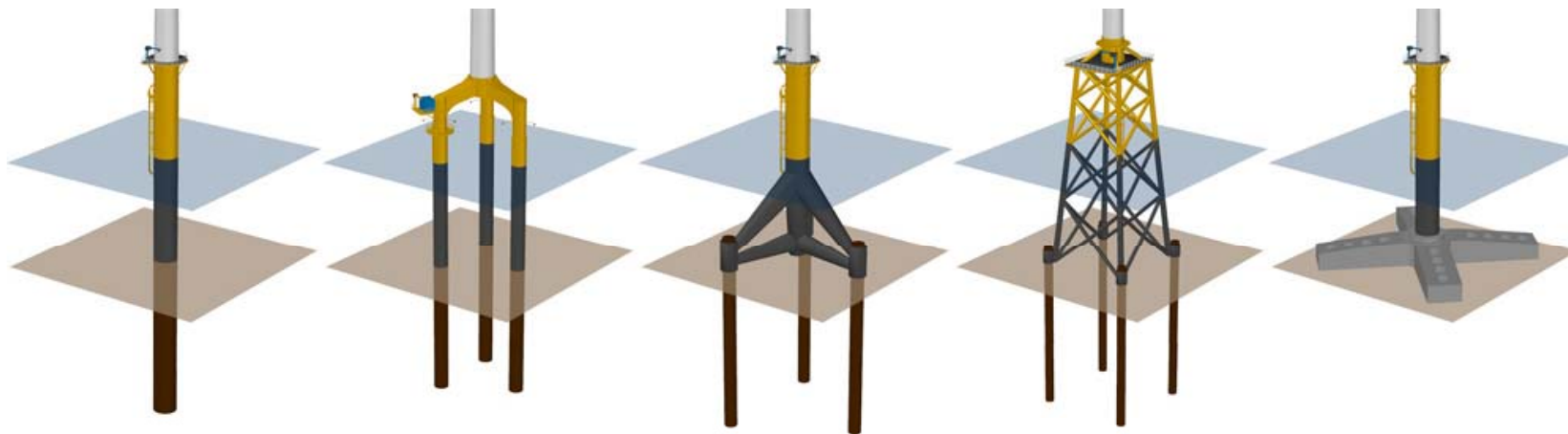
- Use of environmentally friendly substances
- Requirement for “collision-friendly” fundamentals
- Requirements for noise reduction and -minimisation during construction and operation
- Development and enforcement of a noise mitigation concept in the construction phase
- Monitoring according to Standard „Investigation of the Impacts of Offshore Wind Turbines on the Marine Environment (StUK)“



Pile driving



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Condition on Mitigation Measures for Marine Mammals

Noise Mitigation Concept:

- Report on background noise in the construction area
- Emission forecast for construction period
- Use of acoustic deterrents (AHD, ADD)
- Use of soft start method
- Use of noise mitigating work methods:



➔ Sound Exposure Level (SEL) must not exceed 160 dB (re 1 μ Pa) outside of a circle of 750m radius and the Peak Level (L_{peak}) must not exceed 190 dB (threshold formulated by Federal Environmental Agency (UBA))

- Monitoring of deterrence and mitigation measures
- Reporting at short notice (during construction period)

Thank you!

