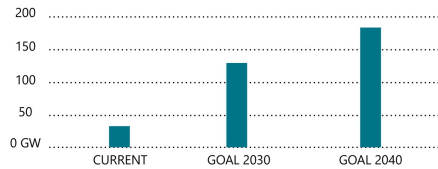


OFFSHORE WIND & ECOLOGY

Exploration and collaboration on preventive, mitigating and compensation measures

FACTS & FIGURES

Current state and goals North seas countries



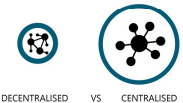
Governance



Tender publishing
In all North seas countries MSP and permitting is government led.

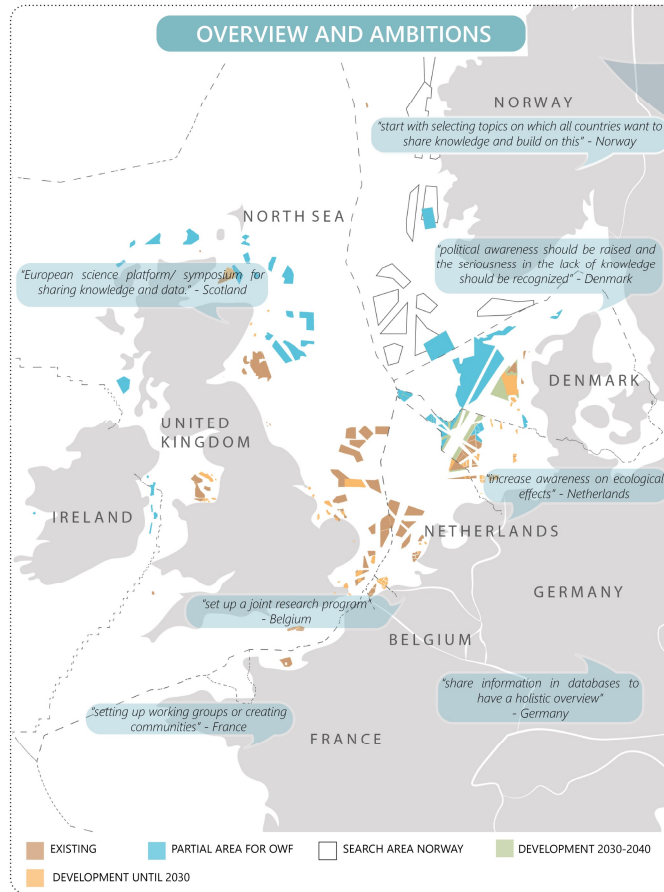


Tender criteria
In one third of the North seas countries the market is in the lead for setting up the baseline for ecology.



EIA assessment
In France the EIA assessment is decentralised.

OVERVIEW AND AMBITIONS



SUGGESTIONS FOR INTERNATIONAL COOPERATION AND POINTS OF ATTENTION

Future cooperation wishes



Coordination in spatial planning and temporal development



Knowledge and data sharing

- Ecosystem functioning
- Location specific ecological effects of offshore wind
- Environmental Impact assessments
- Mitigation measures and their effectiveness
- Platform for knowledge and data sharing



Assessing and mitigating impacts in standardized ways



Joint research initiatives

Points of attention



Different stages of development and energy goals



Delay in development of offshore energy



Different ways of gathering information



Different government bodies involved



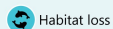
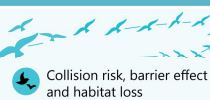
Language barrier



EU/non-EU countries

IMPACTS, PREVENTIVE AND MITIGATION MEASURES

Potential impacts of offshore wind farms



Underwater noise

Hard substrate (e.g. reef effect)

Changes in hydrology and ecosystem functioning

Implemented mitigation and preventive measures

Spatial planning

Underwater noise mitigation (e.g. bubble curtains, thresholds, suction buckets)

OWF layout

Acoustic deterrent devices

Monitoring

Mitigation bird/bat collision (e.g. start/stop)