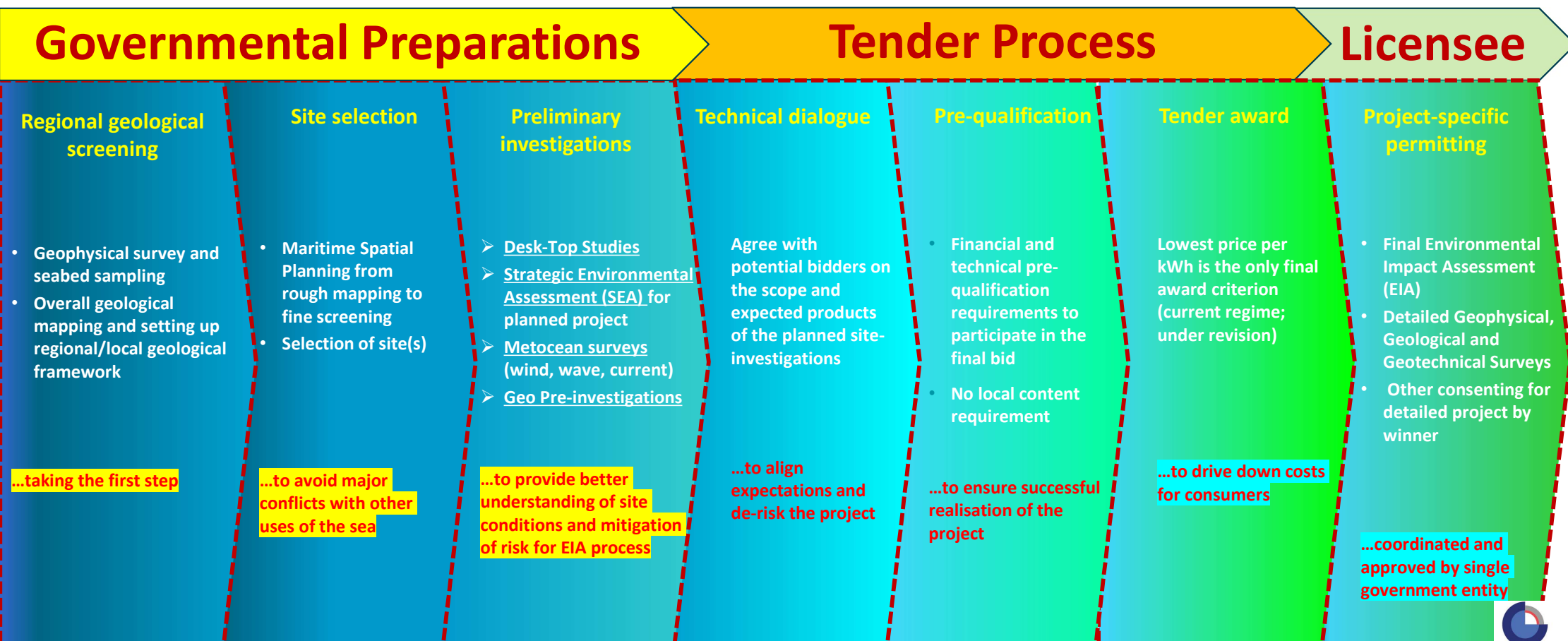


A ROADMAP FOR AN OFFSHORE WIND TENDER PROCESS

Front-loaded surveying and permitting to reduce risk for offshore wind developers



DV-WIND: Strategic Engagement and Cooperation (SEC) Project

Overview of offshore windfarm geo-investigations

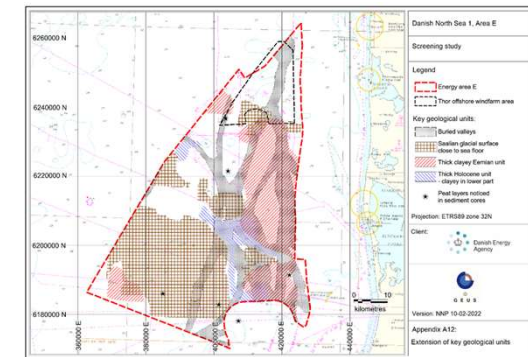
Step 1: Regional geological screening before designation of OFW areas

- Important step in Maritime Spatial Planning
- Important to bring in early
- Geophysical survey and seabed sampling
(Multichannel sparker seismic, subbottom profiler, side scan sonar, Multibeam echo sounder, vibrocoring)
- Overall geological mapping of e.g. soft sediments and setting up regional/local geological framework
- Designation of tentative OFW areas
- In Denmark: Paid by the authorities



Step 2: Detailed geological desk studies of planned OFW areas

- Based on existing geophysical and geological data
- Inexpensive, but very efficient
- Use geological framework from overall screening
- In Denmark: Paid by the authorities

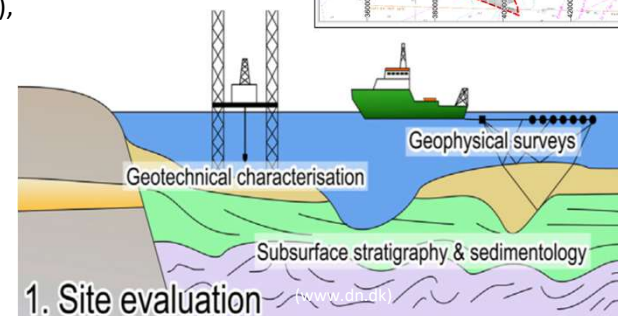


Step 3: Geophysical and geotechnical pre-investigations of OFW areas before tendering

- Expensive, but important
- Use geological framework from overall screening and results of geological desk study
- Fill-in Geophysical investigations (Multichannel sparker seismic, subbottom, sidescan, MBES), *to optimize the selection of locations for Geotechnical investigations*
- Geotechnical investigations, (boreholes, CPTs, etc.)
- In Denmark: Paid by the authorities (cost can later be transferred to winning developer)

Step 4: Detailed site investigations in the construction phase

- Any necessary supplementary geological, seismic and geotechnical investigations
- Detailed Box-surveys on turbine positions
(Bathymetry, side scan, UXO, etc.)
- Paid by developer, Approved by the authorities



From Velenturf et al., 2021: Geoscience Solutions for Sustainable Offshore Wind Development. The Geological Society of London.

