

MARITIME SPATIAL PLANNING AND OFFSHORE WIND DEVELOPMENT

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Per Hjelmsted, HJELMSTED CONSULTING in cooperation with NIRAS

MARITIME SPATIAL PLANNING AND OFFSHORE WIND DEVELOPMENT

Reduction of cost of electricity from offshore wind is essential for development of the offshore wind industry.

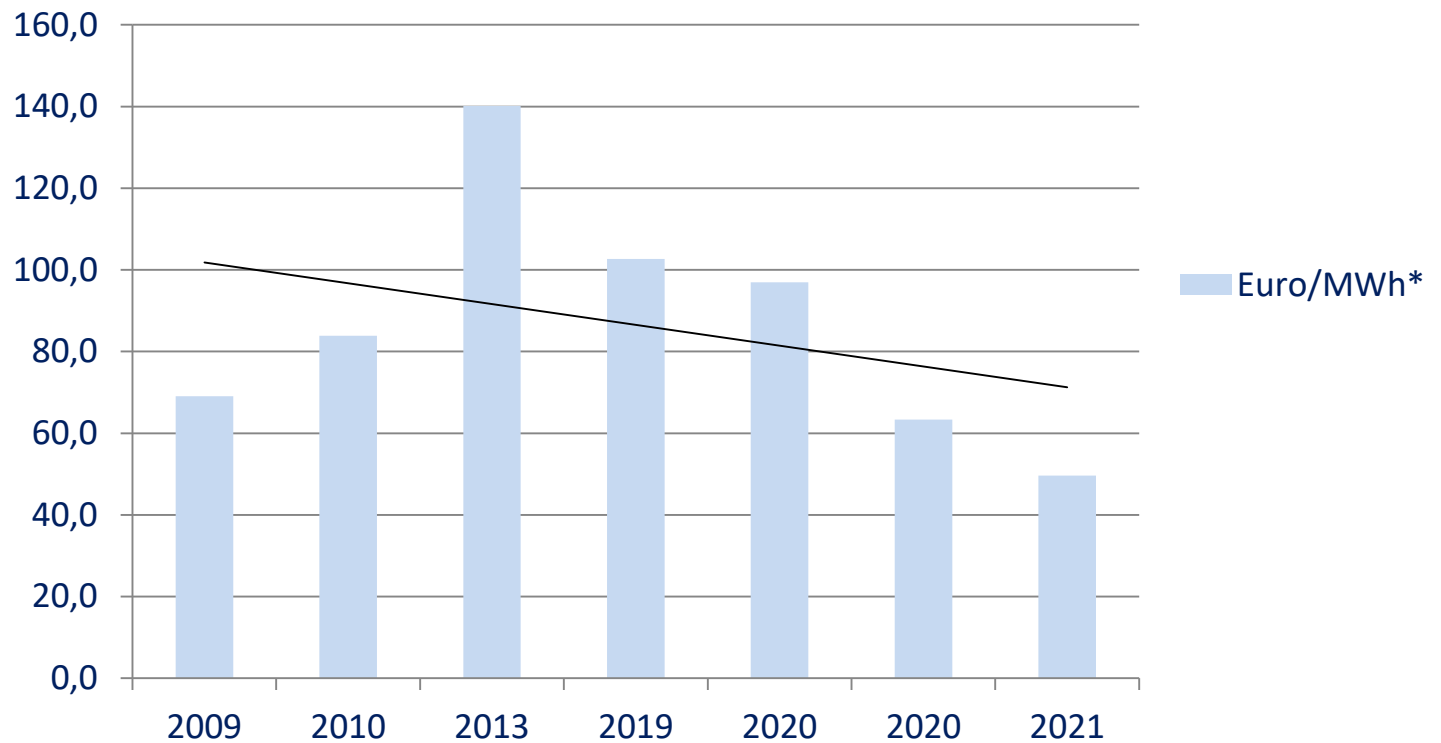
Is MSP an obstacle for continuous cost reductions – or is MSP the tool ?



ELECTRICITY PRICES

Offshore Wind Farms

Price over time



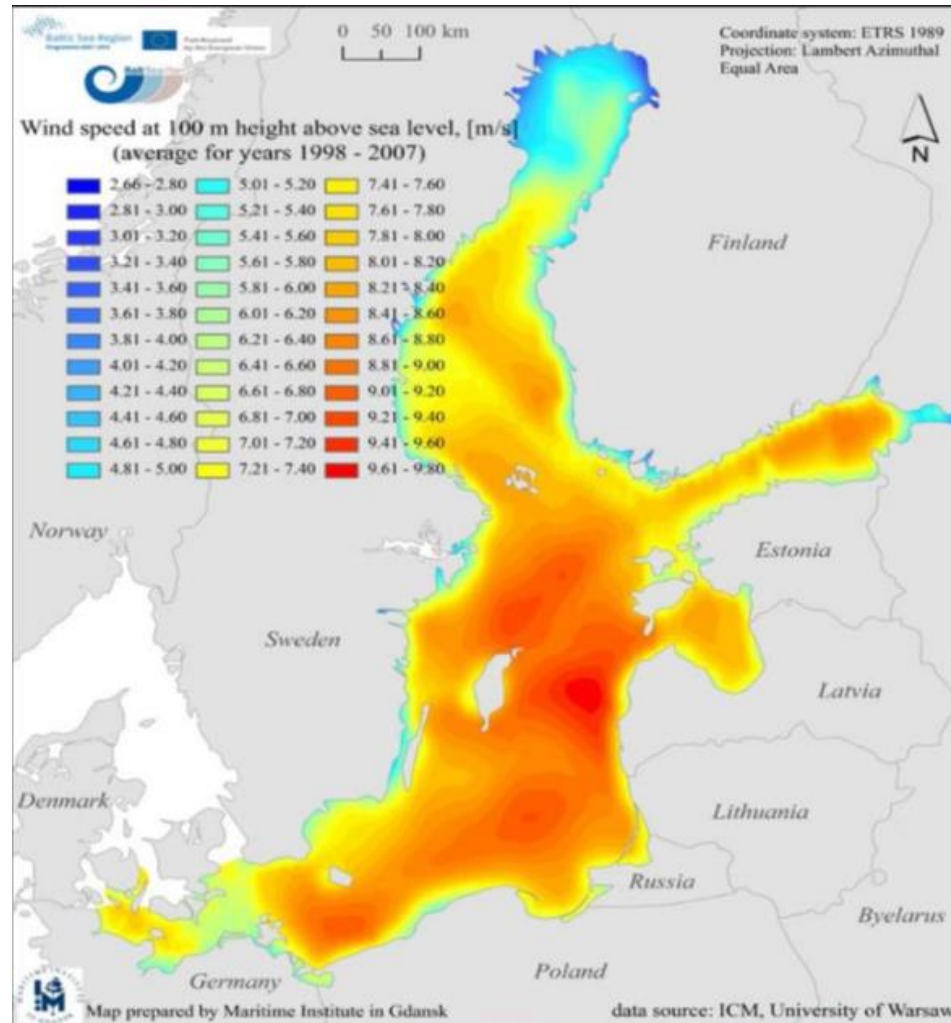
* Price excludes transmission costs

MARITIME SPATIAL PLANNING AND OFFSHORE WIND DEVELOPMENT IN THE BALTIC SEA



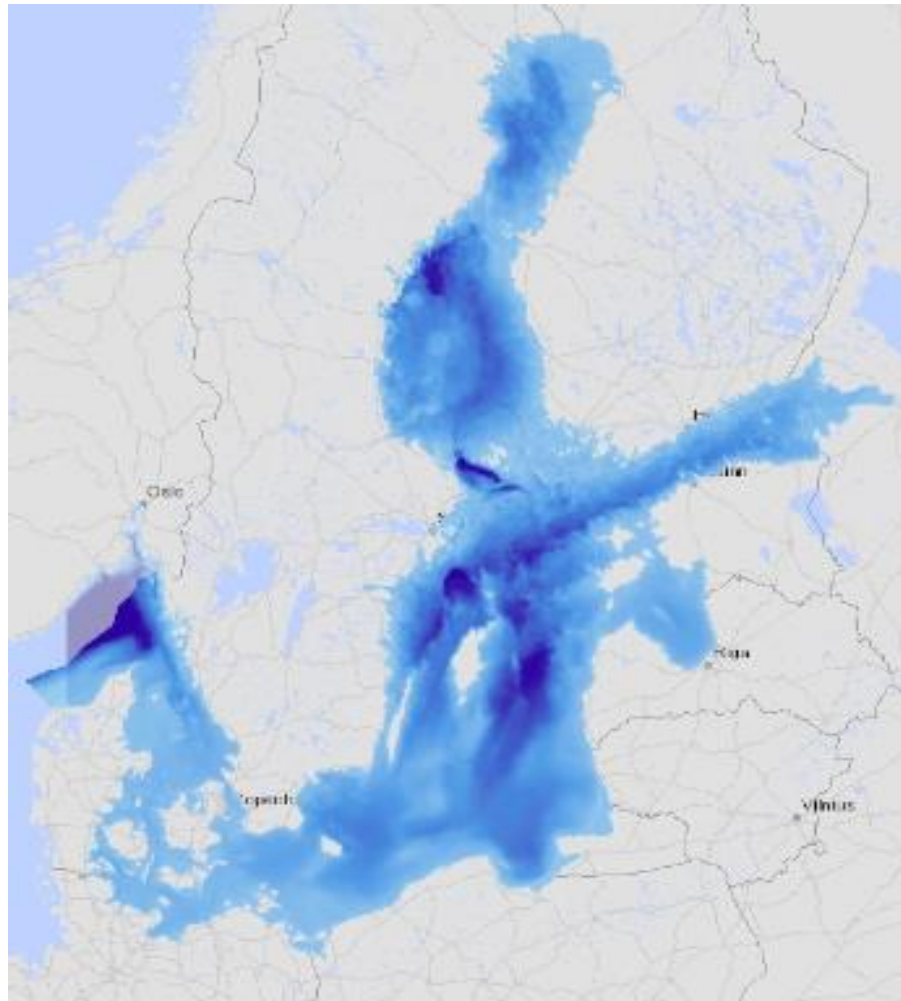
MEAN WIND SPEEDS

Baltic Sea



WATER DEPTHS

Baltic Sea



ELECTRICITY PRICES

Offshore Wind Farms

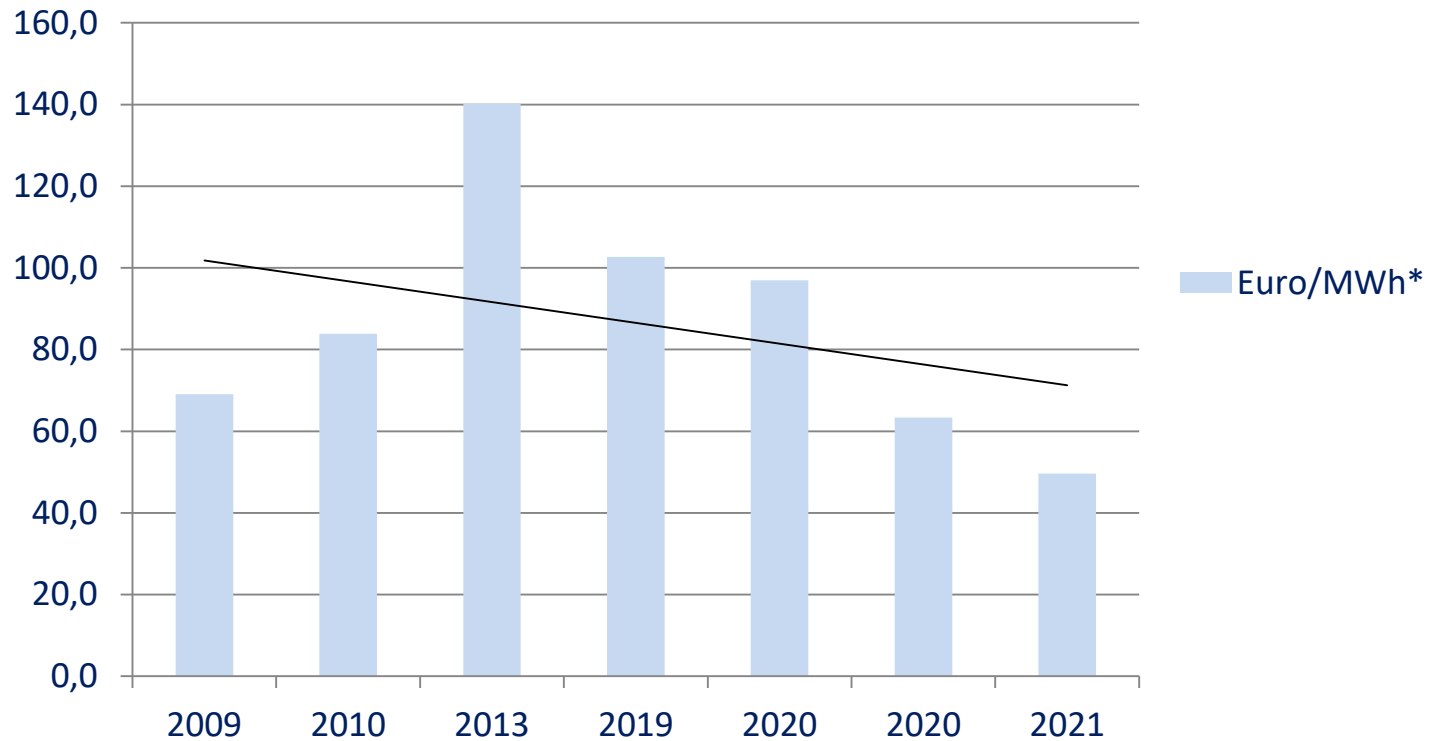
Offshore Wind Farm	Start of operation	Capacity MW	Euro/MWh*
Horns Rev II	2009	209	69,1
Rødsand II	2010	200	83,9
Anholt	2013	400	140,1
Horns Rev III	2019	400	102,7
Borssele I + II (NL)	2020	<760	96,9
Danish Nearshore	2020	350	63,3
Kriegers Flak	2021	600	49,6

* Price excludes transmission costs

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Price over time



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MARITIME SPATIAL PLANNING AND OFFSHORE WIND DEVELOPMENT IN THE BALTIC SEA

Where are the best locations – i.e. most cost effective – for OFW in The Baltic Sea?

- Regarding sea bed, water depth, wind speed and access to grid
- Disregarding national borders and political and regulatory obstacles

How should MSP be used?

