

Balancing EU visions for marine protected areas and offshore wind energy

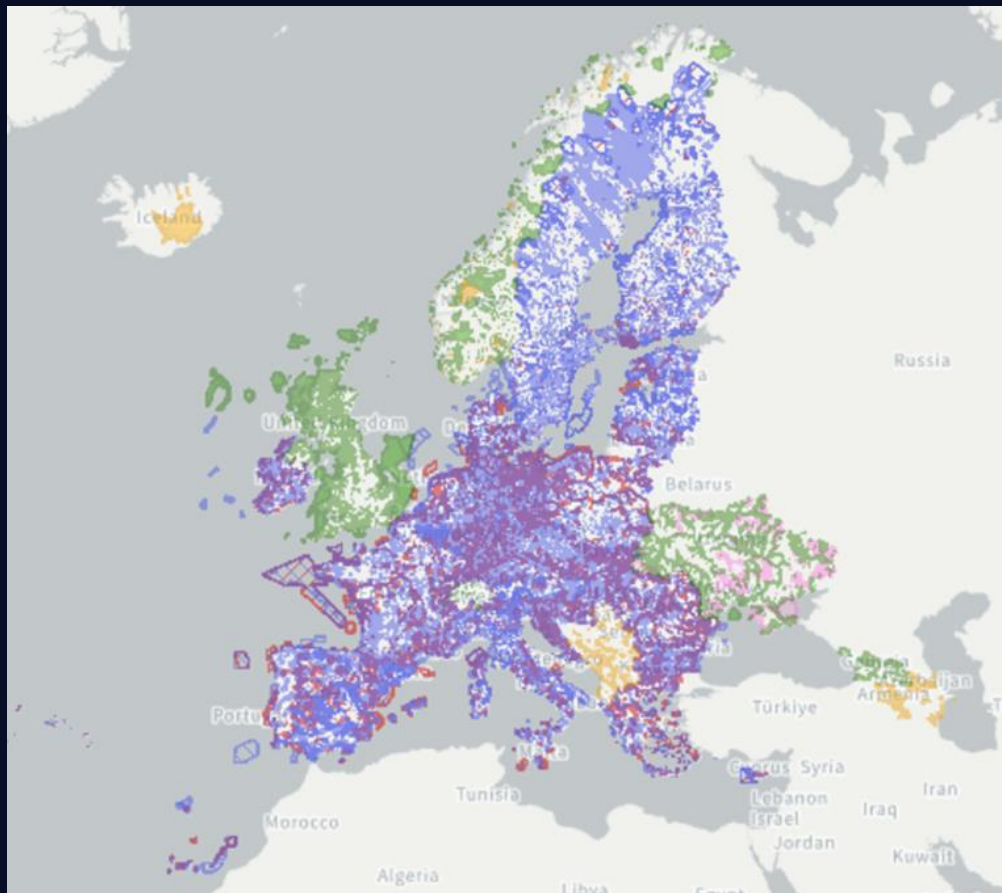
18th February 2025, MPA-Europe Conference, Copenhagen, Denmark

Johnny Reker & Mette Lund, European Environment Agency

with input from colleagues from the European Topic Center on Biodiversity and Ecosystems

The European Environment Agency

- EEA activities on marine protected areas



EEA supports annual data reporting for:

- Natura 2000 sites (EU)
- Nationally designated areas EU + EIONET

Application:

- This information is harmonised to produce statistics on coverage of protected areas coverage at EU, biogeographic regions, marine regions, and MS level (e.g. an EEA MPA indicator [MAR](#)).
- Used in spatial assessments of EU seas.
- Input to EU policy cycle
- EU input to World Database on Protected Areas (WDPA)

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	North-East Atlantic	Baltic Sea	Mediterranean Sea	Black Sea	European Seas				
	OSPAR	HELCOM	UNEP-MAP and GFCM (1)	BSC and GFCM (2)	Art. 17 Habitats Directive (3)		IUCN Red List (4)	Living Planet Index (LPI) (5)	BEAT+ Worst case BQR (6)
					2007-2012	2013-2018			
Sharks and rays (4)									
Sharks and rays (4)									
Sharks and rays (4)					N/A	N/A			
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Sharks and rays (4)									
Pelagic					N/A	N/A			

Marine Messages II, 2020

EU policy visions for renewable energy



Anholt wind technicians, Courtesy: Orsted



Reduce Europe's greenhouse gas emissions to reach climate neutrality by 2050. Increased generation of renewable energy is a critical element of decarbonising Europe's economy and for achieving energy security.



Increase share of renewable energy generation from 23% in 2022 to at least 42.5% by 2030.



Increase offshore wind energy production by more than 16 times by 2050 from 19.4 GW in 2023.



Development of **offshore wind energy** capacity is foreseen to grow to 60-88 GW of installed capacity by 2030 and 300-317 GW by 2050.

EU policy ambitions for offshore wind

- focus on 'shallow' waters so far

EU strategy on offshore renewable energy '**estimates to require >3%** of the European maritime space'.

North Sea countries (NSEC) set in 2022 a **260 GW by 2050** OWE target i.e. more wind capacity in 'northern seas'

EU Member States have so far planned for offshore wind development equivalent to **>220GW or 52,000km²**

Current installed offshore wind turbine capacity is in coastal waters at **depths down to 58 m** in Scotland.

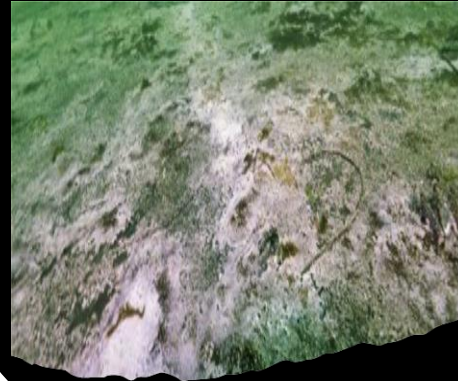
Floating turbines being **tested down to 70 m** in the Mediterranean Sea.



Anholt wind farm, Courtesy Orsted



Courtesy: Orsted



Potential challenges for OWE

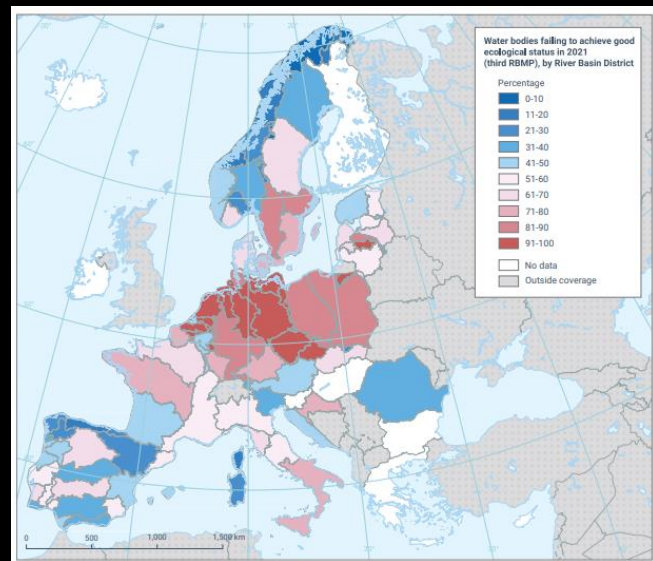
Site suitability matters: Wind energy requires fairly shallow coastal waters, not just >3% of EU marine territory.

Legal safeguards: Activities must not compromise good water status/ecological potential (unless derogated).

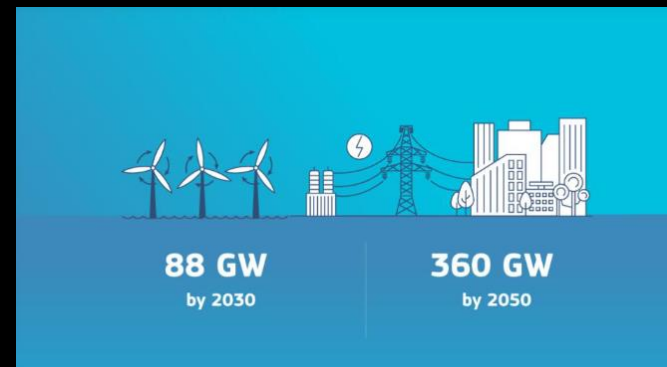
Current ecological status: 50% of coastal waters achieve Good Ecological Status (0-1 nm).

Offshore connection? Which implications do this have for Good Environmental Status for offshore waters?

Knowledge gap: Limited experience in offshore wind turbine decommissioning.

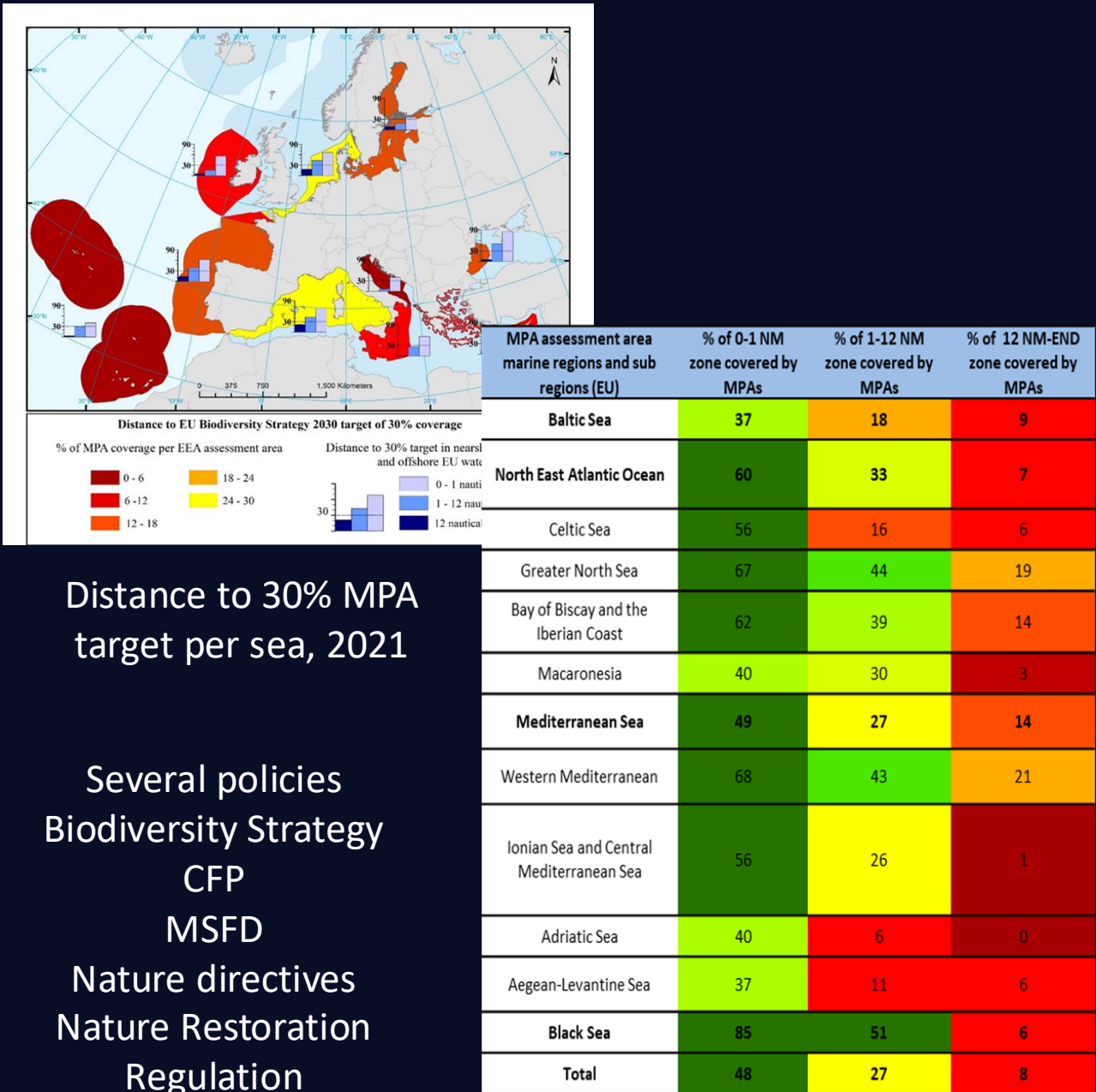


State of Water, EEA



Courtesy: European Commission

EU policy visions for marine biodiversity and MPAs



Distance to 30% MPA target per sea, 2021

Several policies
Biodiversity Strategy
CFP
MSFD
Nature directives
Nature Restoration
Regulation

MPA coverage per sea and distance from shore, 2021



Achieve healthy, clean and productive seas i.e. Good Environmental Status sets the boundaries for sustainable use.



Achieve Favourable Conservation Status for vulnerable species and habitats and **Maximum Sustainable Yield** for fish.



Protect 30% of Europe' seas by 2030 i.e. app 150% increase from 12% in just 5 years. Restore 90% of ecosystems by 2050.



Strictly protect 10% of Europe's seas by 2030 i.e. 10-fold increase from the >1% in 5 years. 9% is covered by N2K.



Designate a representative, adequate and coherent network of MPAs vs a heavily biased network towards coastal areas.



Ensure that the sites and network are **well-managed** incl. phase out mobile bottom fishing in MPAs by 2030.

Potential challenges for MPAs



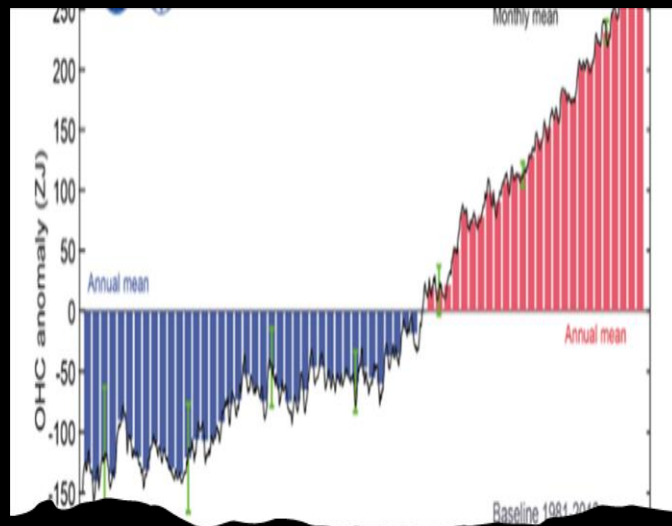
MPA gaps remain: Especially regarding offshore coverage and in achieving the 10% strictly protected target.

Species protection: Commercially exploited fish have historically been excluded from MPA designations.

Ecosystem resilience: Structure and function must be better integrated to retain and restore resilience.

Climate adaptation: Climate refugia and carbon rich habitats could increasingly be considered in MPA planning.

Governance: Need to move from 'paper parks' to well-managed MPAs.





The question remains:
How to move further towards climate neutrality without compromising the long-term health of our seas or the livelihoods of sectors that depend on them?

Locally, how do we best avoid the squeeze of coastal areas and recognize all the interests operating there?



Lobster pots
Lalmouth, Cornwall



State of Europe's seas, EEA



Subsea cable protection
Fuerteventura – Lanzarote, Spain



MSP, European Commission

Potential solutions

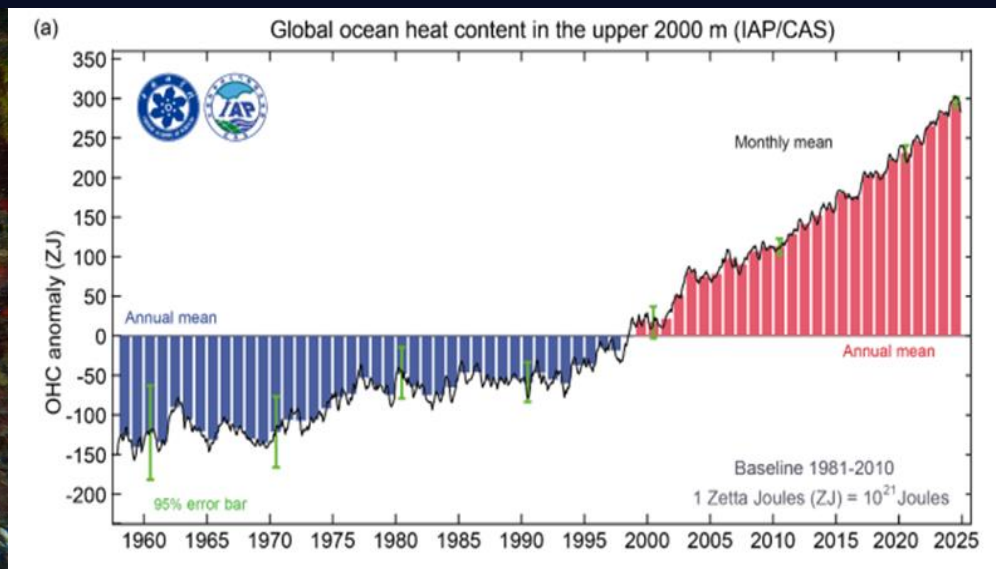
Explore options for co-existence: Offshore renewables can support marine habitats e.g. by creating refuge areas for wildlife or sectors e.g. by integrating aquaculture.

Maximising synergies: Thoughtful design can support marine life incl. living resources, while delivering clean energy.

Maritime spatial planning (MSP): Essential to balance offshore energy expansion with marine protection /restoration and other sea uses rather than one activity singlehandedly moving ahead of others.

Informed decision-making: MSP could be a tool supporting the achievement of Good Environmental Status and other objective by managing trade-offs between energy, nature, and other human activities.

Closing knowledge gaps: All stakeholders ought to share their knowledge, make data on activities fully available for informing an MSP process.



We have the science,
we have the policies,
we have the experience,
we know the solutions,

but we need to act together within
and across regions and with speed





Thank you

More information incl. references can be found in the EEA Briefing ['Harnessing offshore wind while preserving the seas'](#) or by contacting Johnny.reker@eea.europa.eu