

Coexistence of offshore wind power with commercial fishing, aquaculture and nature conservation

A synthesis of knowledge about preconditions and measures

THEME: **Co-existence of activities**

Background



Coexistence of offshore wind power with commercial fishing, aquaculture and nature conservation



A synthesis of knowledge about preconditions and measures

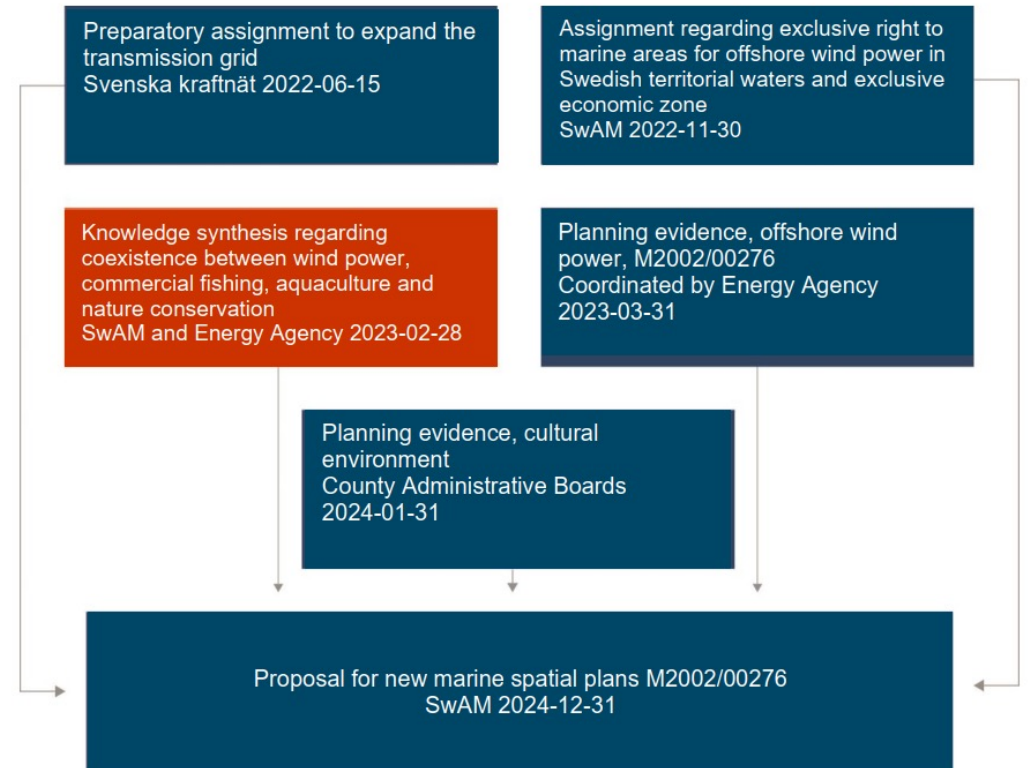


Report 2023:7



Energimyndigheten

Havs och Vatten myndigheten

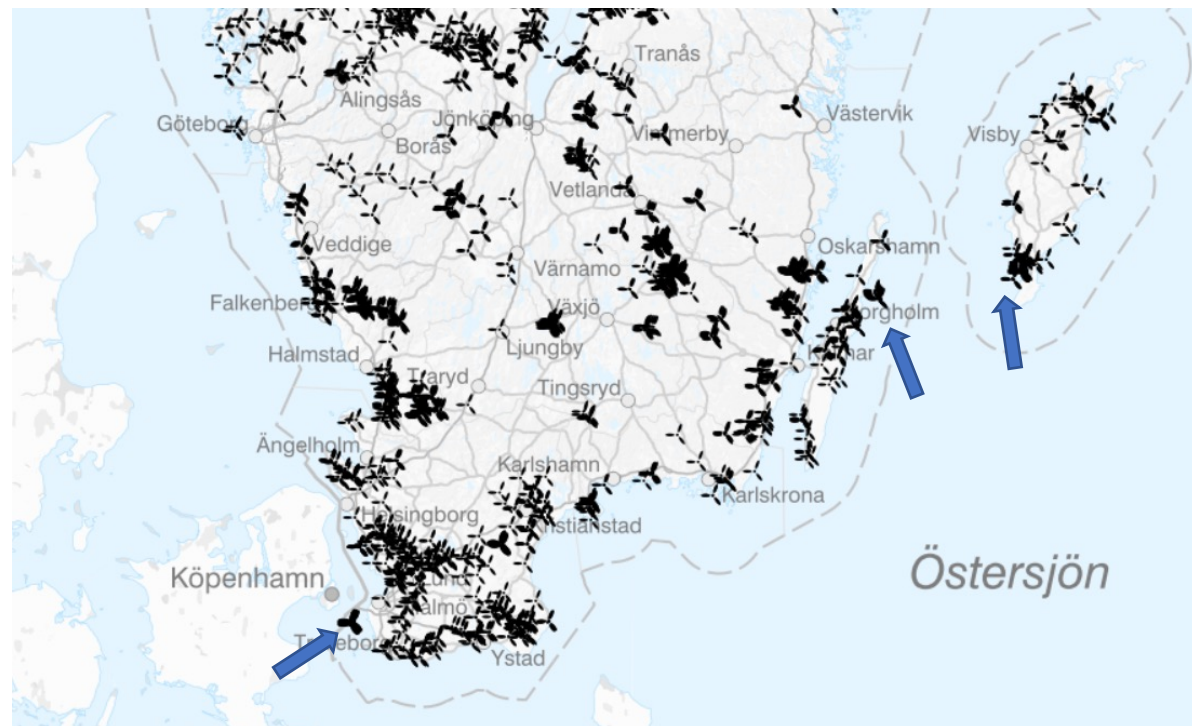


Offshore wind in Sweden

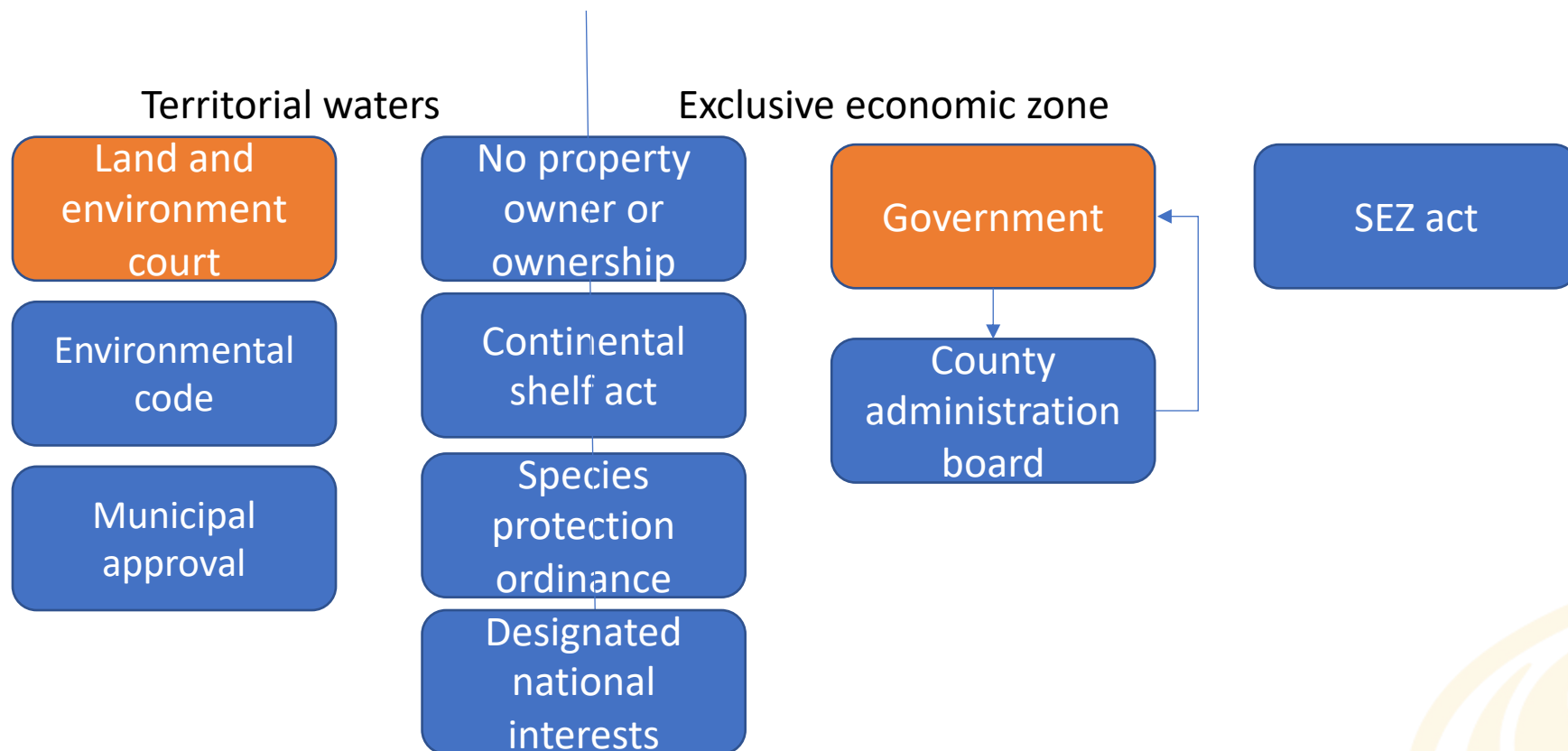


Offshore wind power

- Few active sites in Swedish waters
- Increased need for production
- Open door system



Regulatory framework



Offshore wind and commercial fishing



Coexistence with commercial fishing

- Fishing method – active/passive demersal/pelagic
- Floating or bottom-fixed
- Outdated knowledge
- Economic uncertainties
- Navigational risks



Photo: Jan-Eric Johansson

Navigational risks and insurance

- Need for a quantitative analysis of navigational risks
- Insurance for fisheries and wind farms



Photo: Fredrik T Lindgren

Offshore wind and aquaculture



Coexistence with aquaculture

- Large theoretical potential
- No active facilities or license requests for offshore aquaculture in Swedish waters
- Challenges
 - Technology
 - Operation
 - Safety
 - Regulations
 - Financing
 - Insurance



Photo: Pernilla Johansson

Offshore wind and nature conservation



Coexistence with nature conservation

- Regulatory framework
- Environmental impacts and site-specific effects
- Environmental monitoring



Foto: Martin Almqvist/AzoteLibrary

Nature inclusive design

- Aiming to add a positive element to environmental impact
- Clarify the assessment and environmental effects



Foto: <https://www.derijkenoordzee.nl/en/news/innovation-for-restoring-oyster-reefs-installed-in-luchterduinen-wind-farm>

Multi-use in marine spatial planning

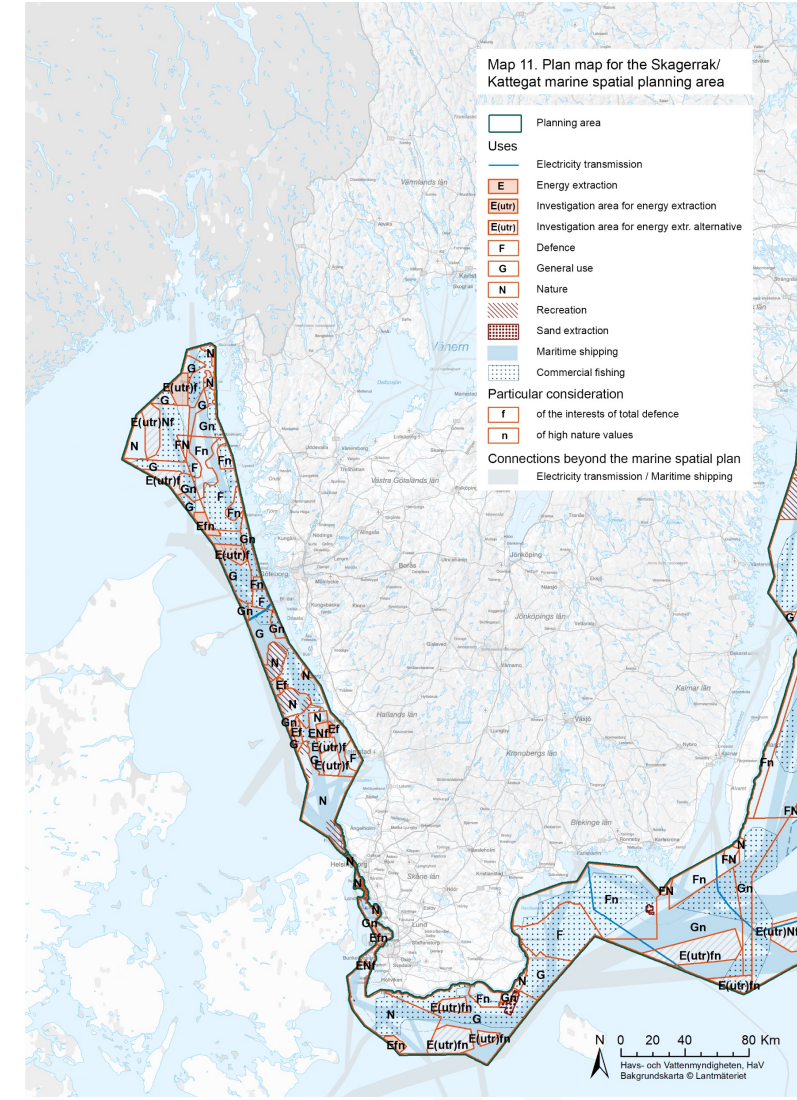
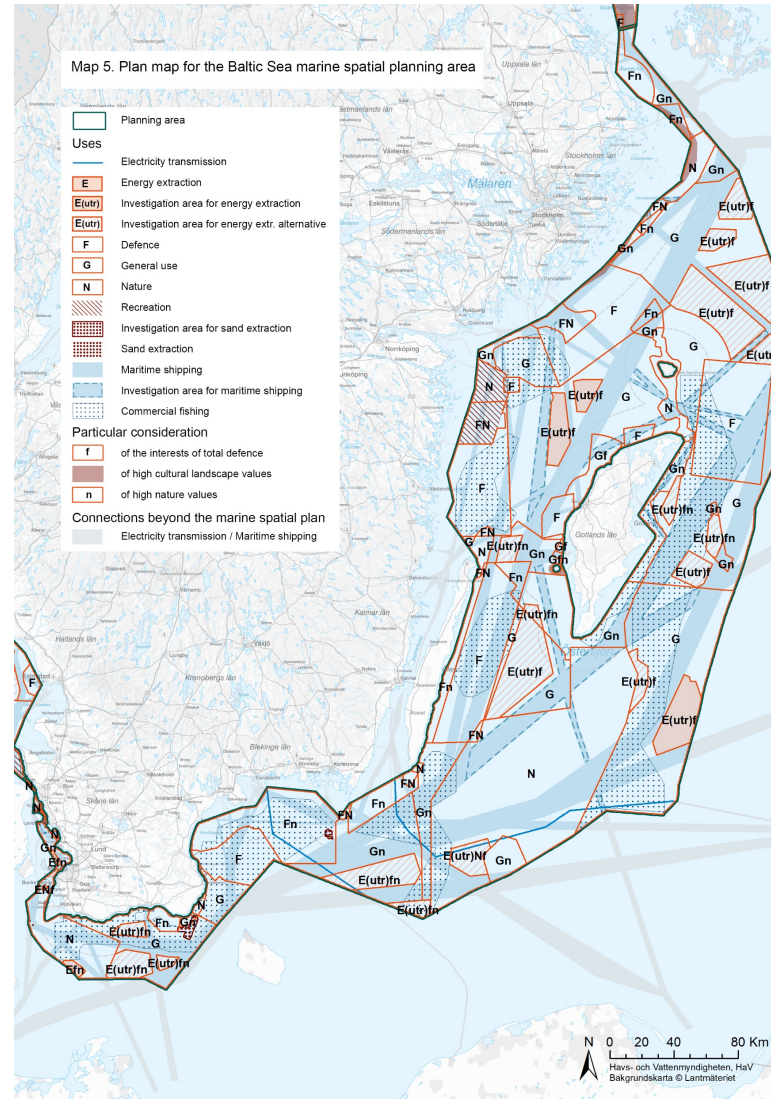
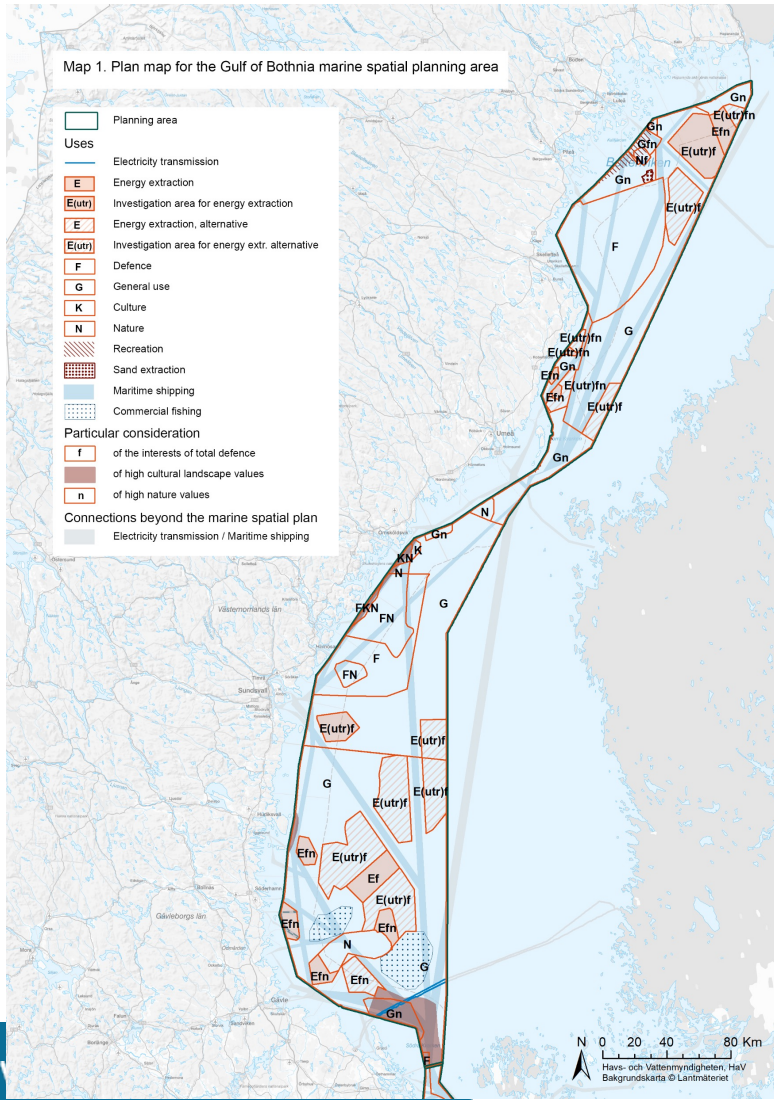


Marine spatial planning

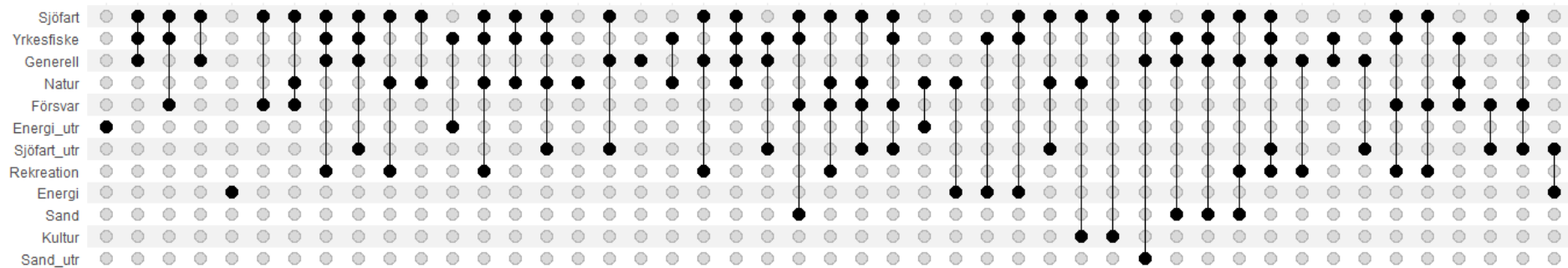
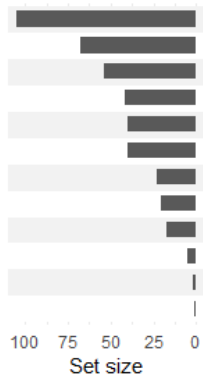
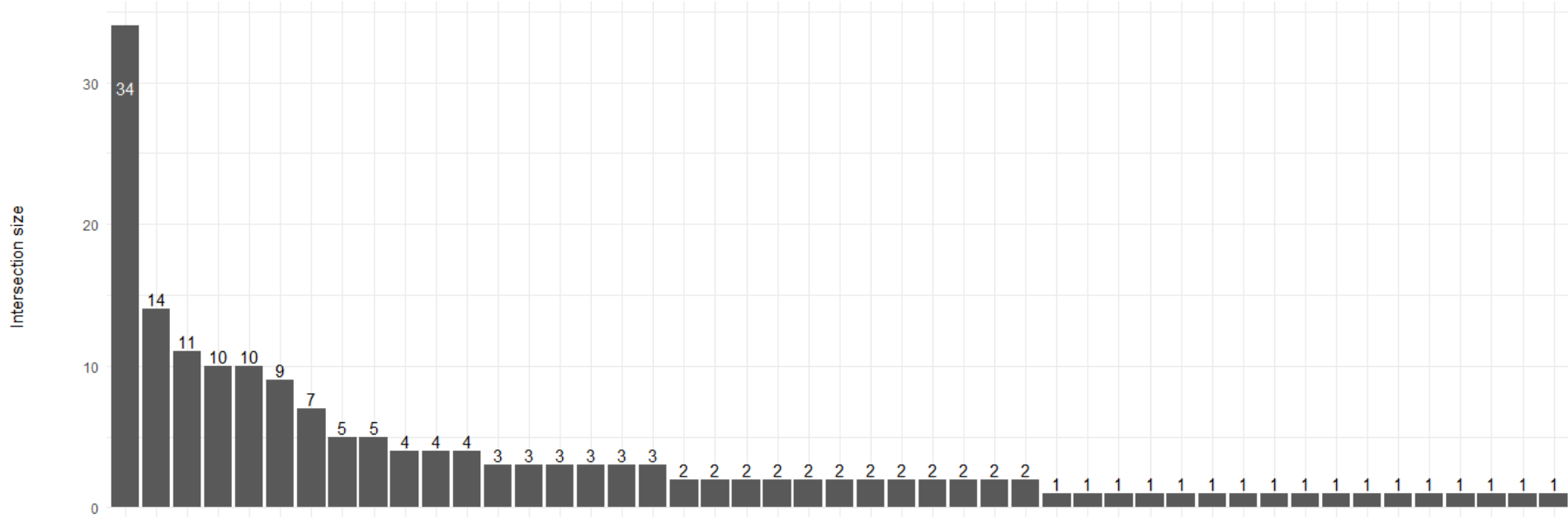
- New plans in public consultation
- Government task of 90 additional TWh
 - Feb 2022 – Dec 2024
- Another round of public consultation May – Aug 2024
- ESPOO-consultation 2023-24



Marine spatial planning



Multi-use planning



Multi-use i havsplanerna

Conclusion

- OWF and commercial fishing – difficult due to safety and economic risks
- OWF and aquaculture – regulatory and economic hurdles
- OWF and nature conservation – case by case basis. Environmental monitoring.
 - OECM's – other effective areabased conservation measures
 - Nature inclusive designs
- Cooperation and dialogue between sectors – with or without mediators
- Holistic management
- Ecologic, economic, social sustainability





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