Ocean INSTITUTE

- Supported by the Velux Foundations

Perspectives from an independent and knowledge-based think tank

Ditte Mandøe Andreasen
Head of Programme
dma@taenetankenhav.dk
+45 30920001

29. August 2024

Agenda

- Key messages
- Who are Ocean Institute
- Threats to the marine environment in the North Sea
- Reccomendations on offshore wind / cumulative effects

Key messages

- The marine environment is not in a good status
- North Sea is currently one of the most intensively used sea basins in the world.
- The green transition should be rolled out in the safest way for the ocean, considering the combined effects of other marine activities taking place over time.
- The Cumulative Effects Assessment is a key component of the Ecosystem-Based Approach and crucial for understanding how offshore wind farms and other activities interact to impact the marine environment.
- Cumulative effects need to be addressed much more systematically

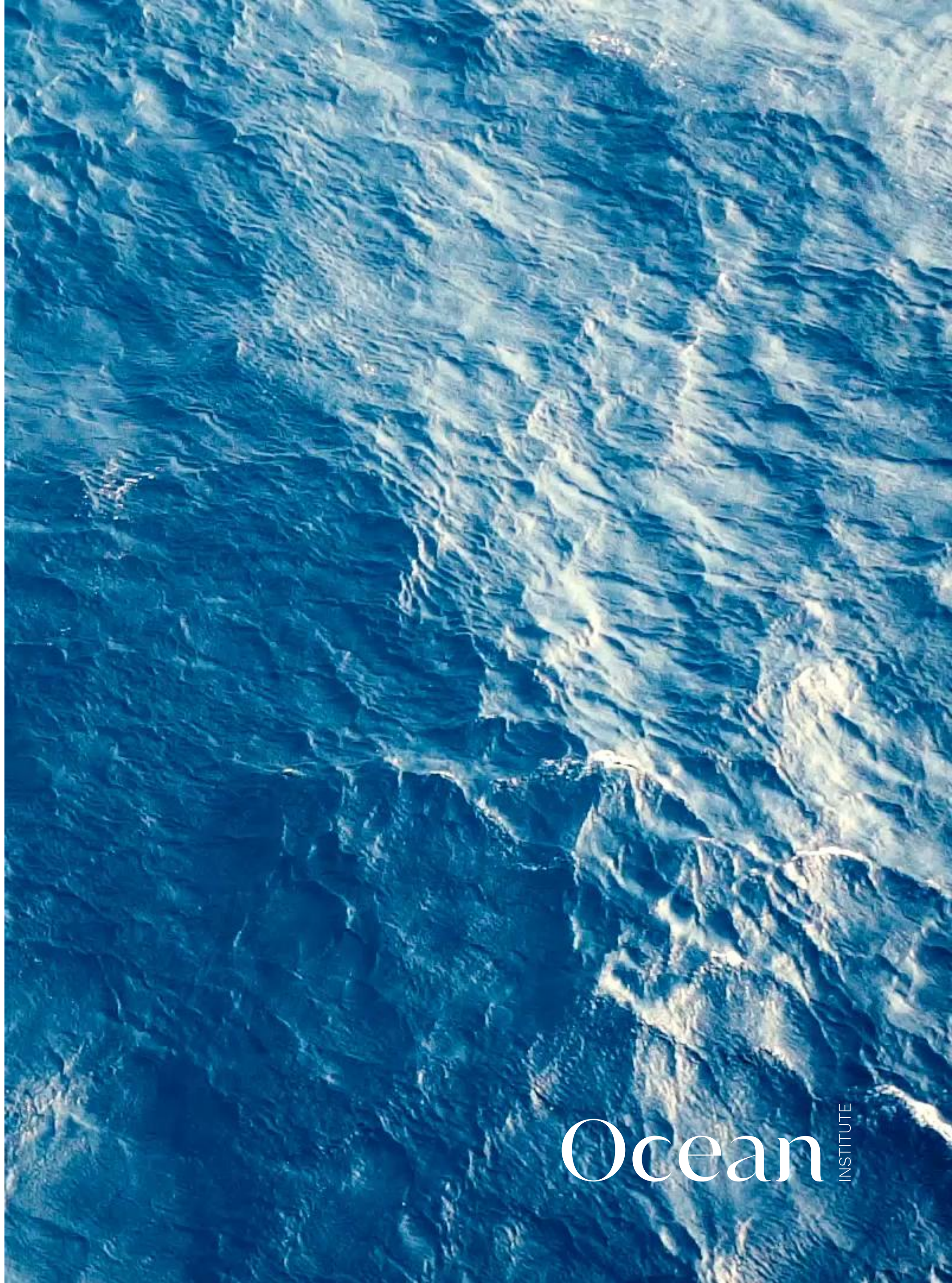
Ocean INSTITUTE

Who are Ocean Institute

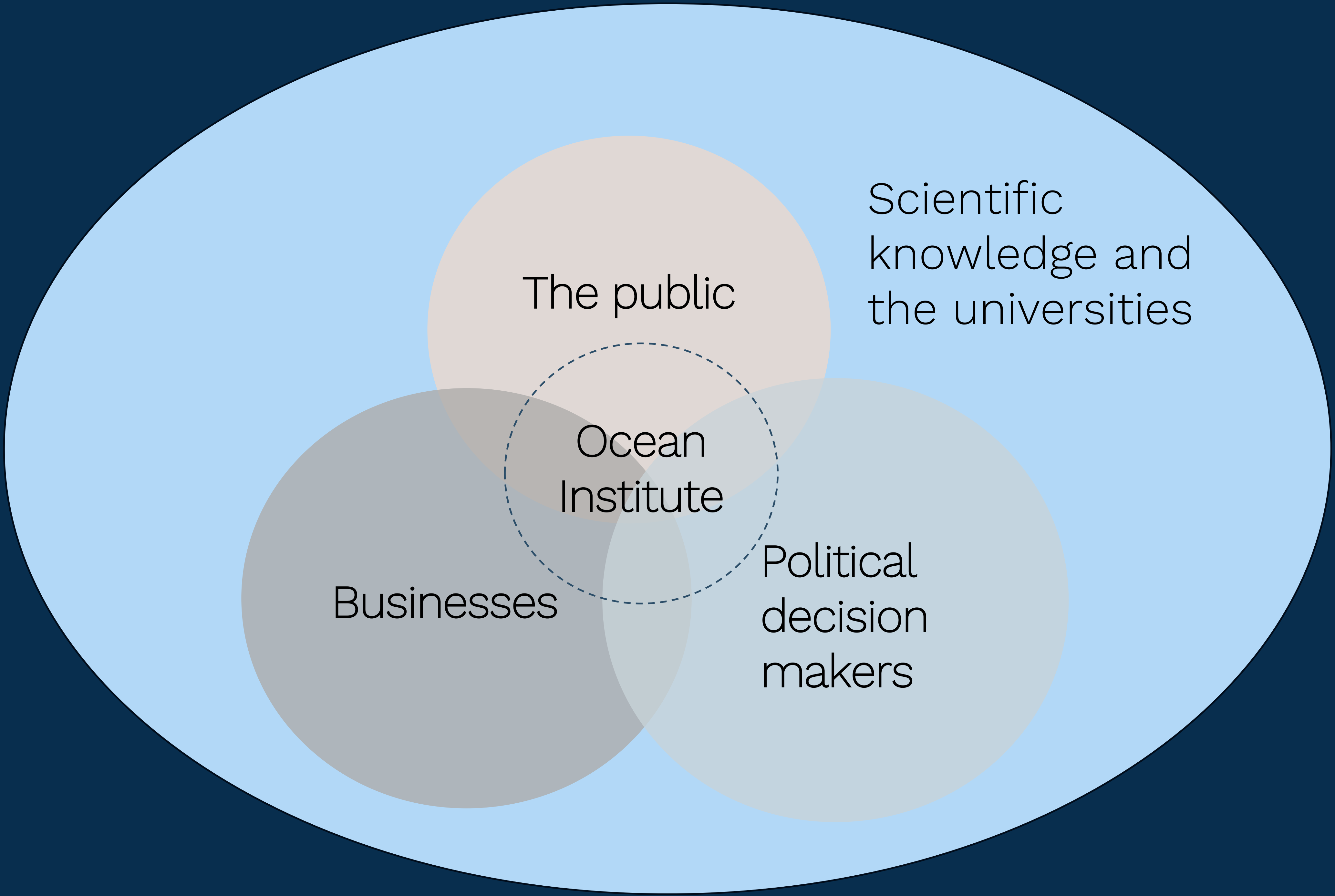
March 2022

Ocean Institute - a think tank

- An independent knowledge partner who collects and distributes knowledge about the oceans.
- We analyse challenges and promote solutions.
- Our knowledge should strengthen actions towards clean and healthy seas which are used sustainably.

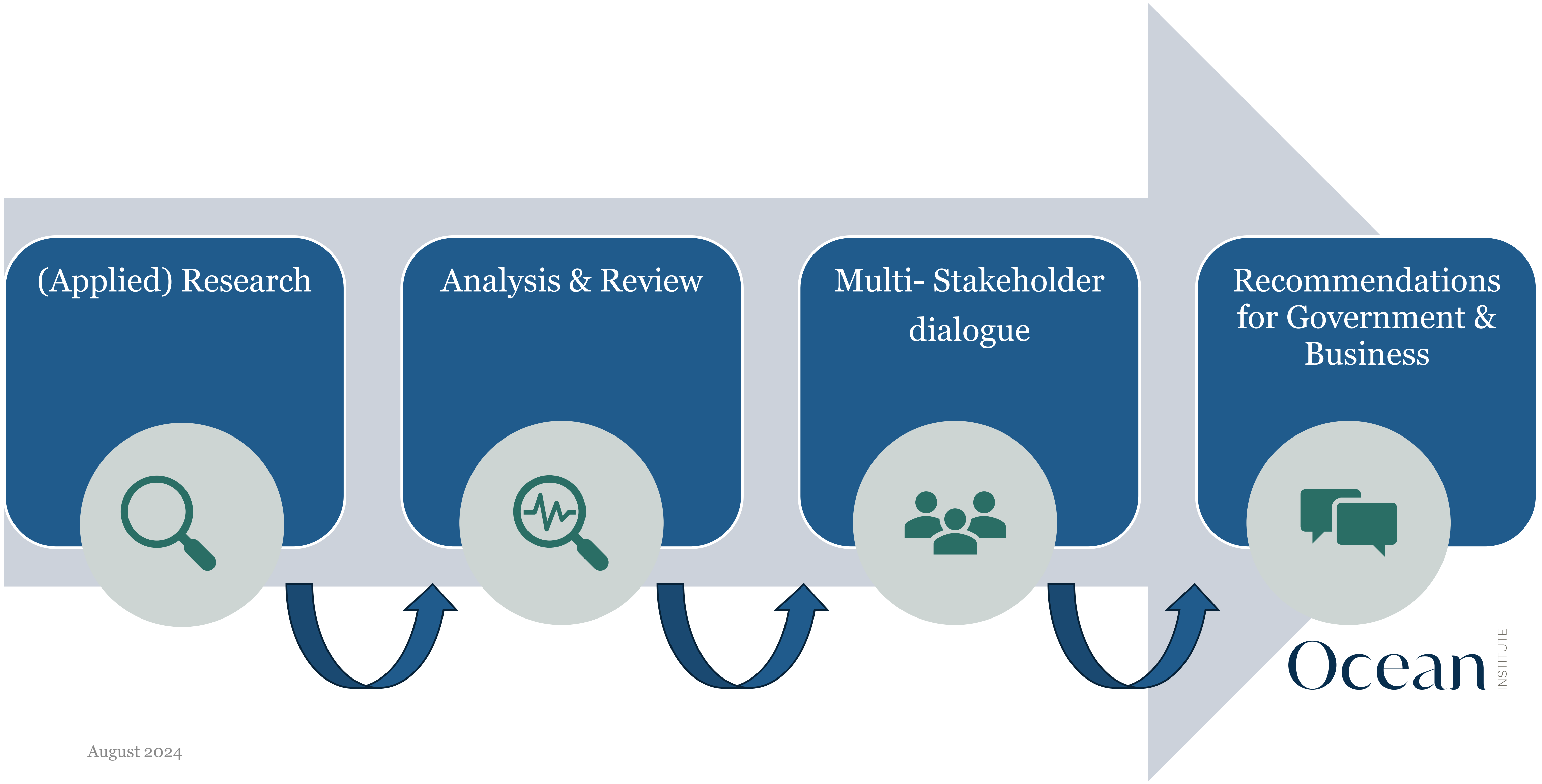


3 arenas



Scientific knowledge and the universities
The public
Ocean Institute
Businesses
Political decision makers

Our Science to Policy approach

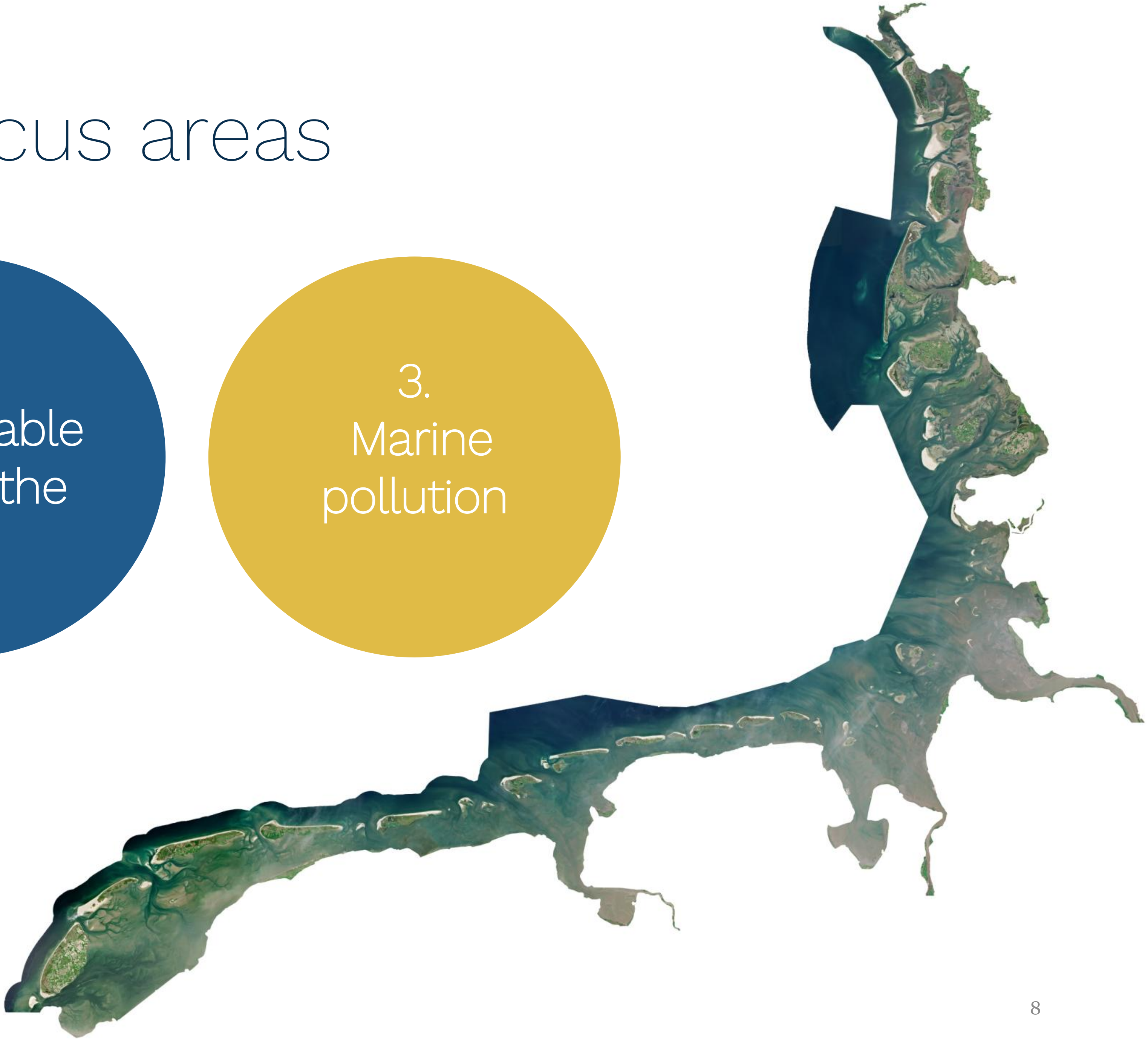


Three strategic focus areas

1. Restorations of marine ecosystems

2. Sustainable use of the sea

3. Marine pollution



Threats to the marine environment in the North Sea

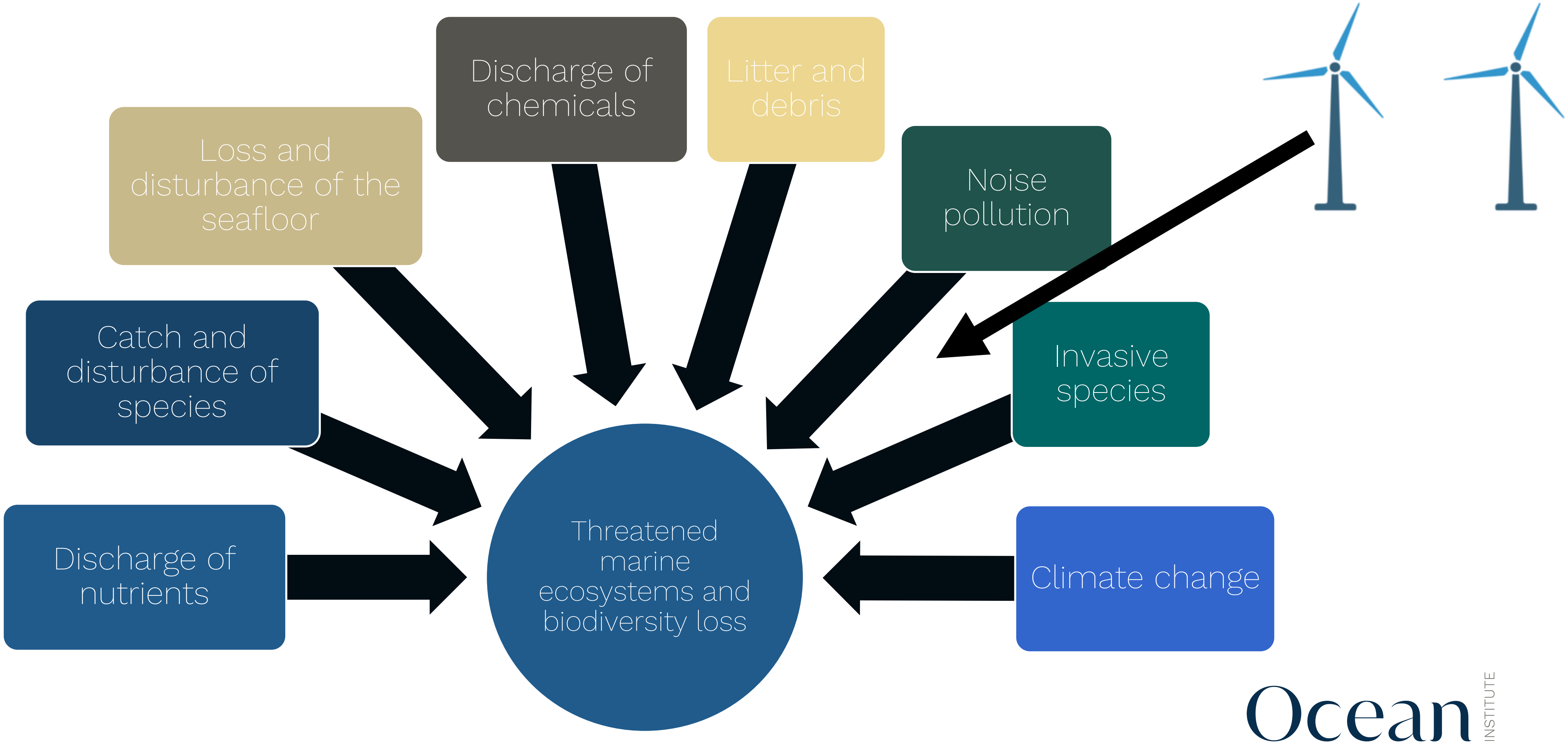
March 2022

State of the marine environment in Denmark

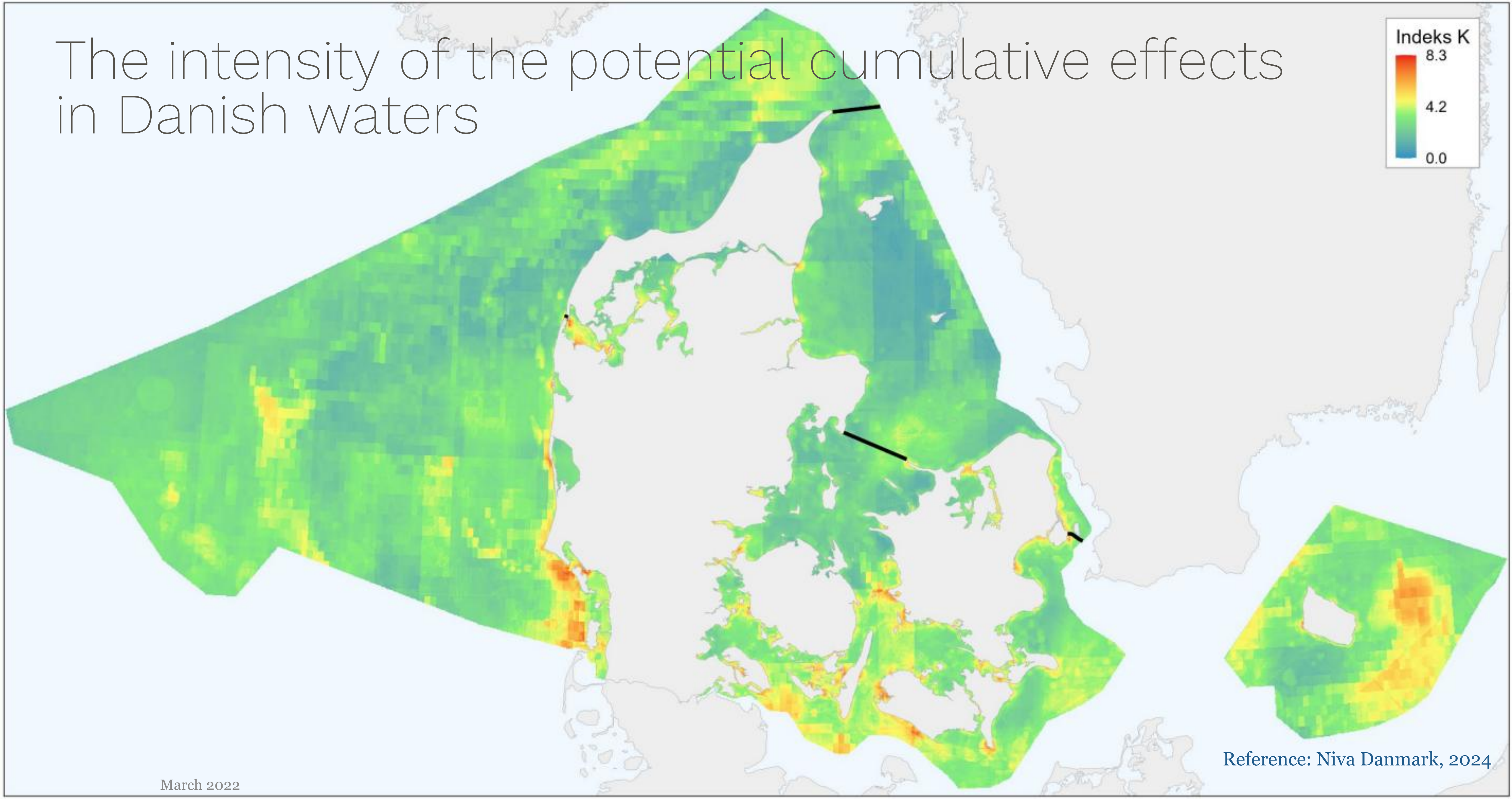
- **Denmark** – the marine environment is in a critical condition
- Only five out of Denmark’s 109 coastal areas are in good ecological condition.
- 7 out of 8 of marine protected habitat types in Denmark are in a 'strongly unfavorable condition.’
- Two-thirds of all eelgrass in Denmark has disappeared since the year 1900
- Especially, the coastal sea is in a critical condition

Ocean INSTITUTE

Threats to the marine environment



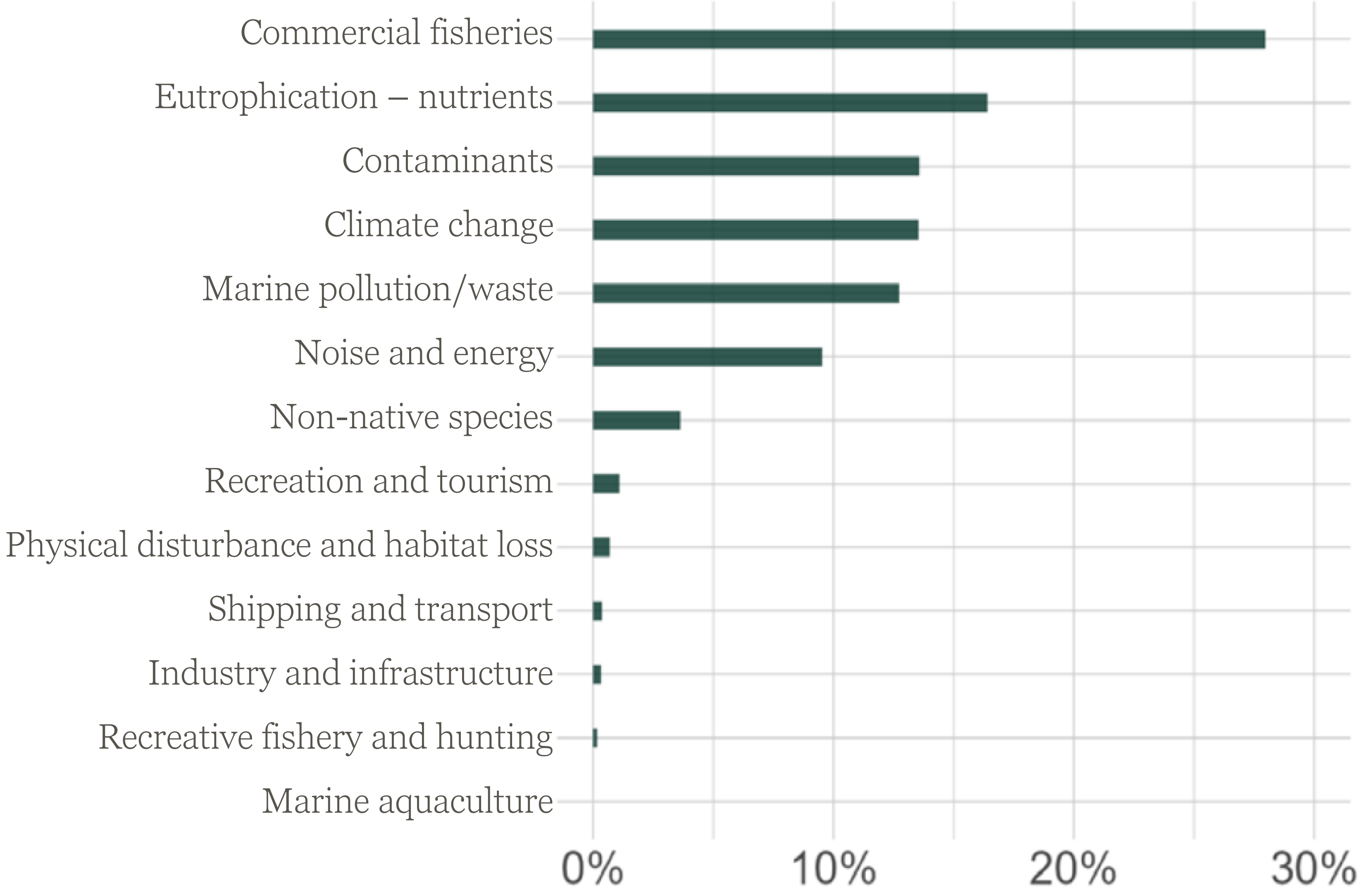
The intensity of the potential cumulative effects in Danish waters



Reference: Niva Danmark, 2024

March 2022

Pressures in the Danish part of North Sea / Skagerrak



Reference: Niva Danmark, 2024

Ocean INSTITUTE

Offshore wind and cumulative effects

March 2022

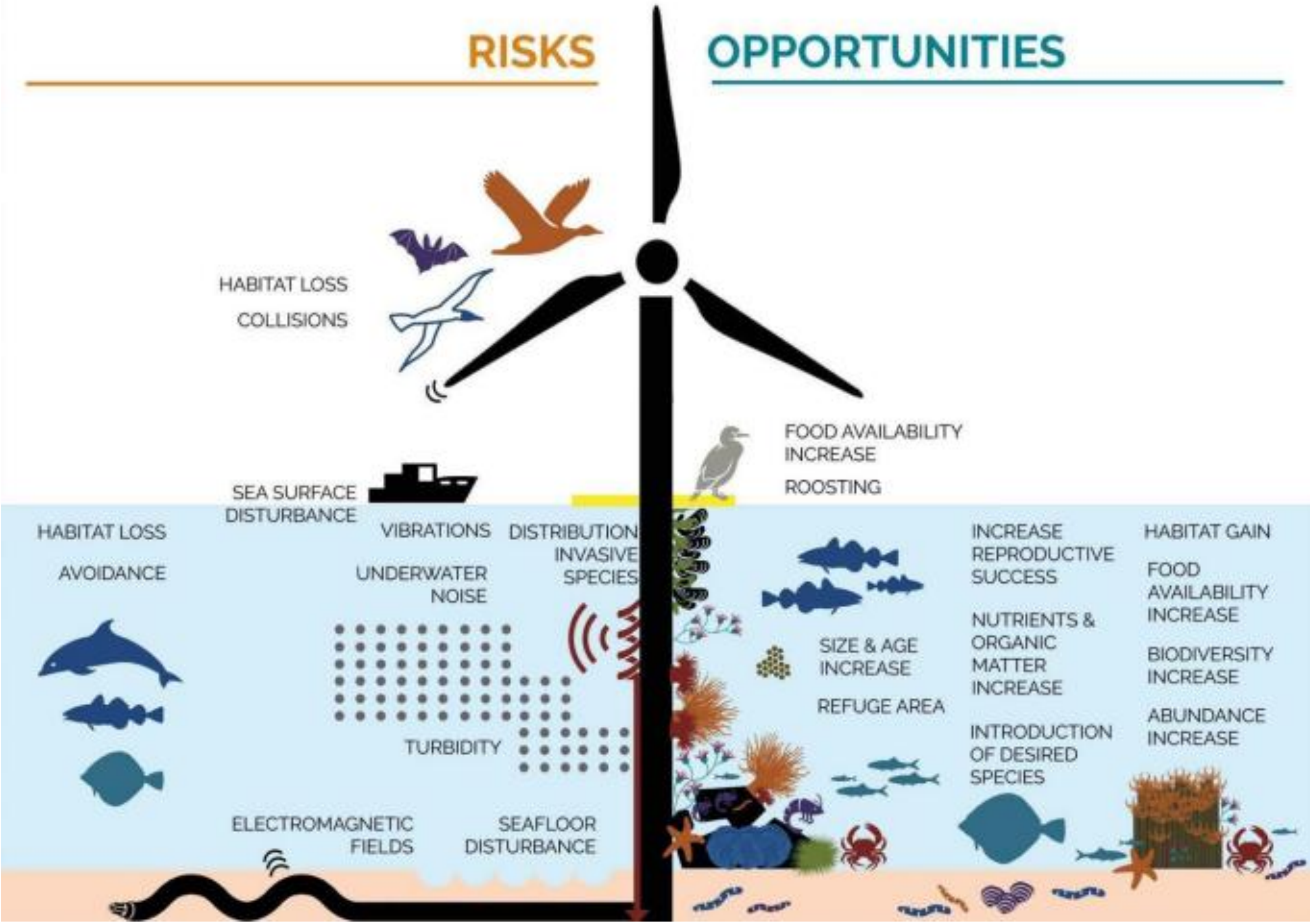


Illustration by The North Sea Foundation: Roll out wind at sea with respect for nature, An analysis of potential risks to North Sea nature posed by the offshore wind energy transition (2022)

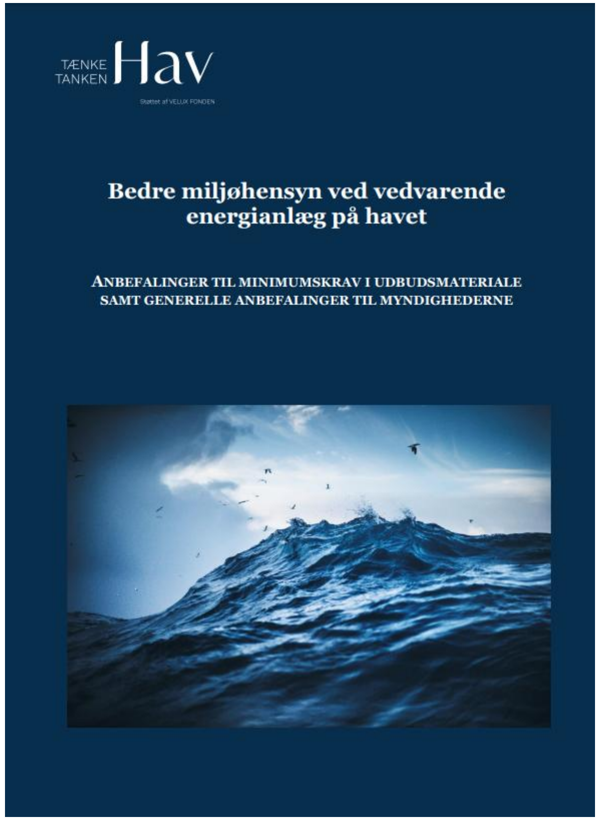
Recommendations for offshore wind I

1. Management: An ecosystembased approach – focusing on cumulative effects
2. Environmental monitoring and focus on significant adverse environmental impacts
3. Availability of raw data and meta data about environmental impacts
4. New studies and research on knowledge gaps
5. Higher environmental requirements in general
6. Nature Inclusive Design onsite
7. Nature restoration measures onsite/offsite and monitoring
8. Better involvement of relevant stakeholders
9. Increased data collection requirements on knowledge gaps (EIAs)

Recommendations for offshore wind II

1. Include Nature Inclusive Designs that are relevant to the specific area – no size fits all.
2. Awareness of no-go areas (screening) and species of particular interest in a given area.
3. Strong collaboration between developers, governement officals, NGO’s, universities etc. → as early as possible
4. Explore possibilities for coexistence, but keep the current status of the seas in mind.
5. Need for common language and methodology across national boundaries.
6. Cumulative effects need to be addressed much more systematically

Recommendations from Ocean Institute have impact



- Nature Inclusive Design in two OFW parks (1 in the North Sea and one in Kattegat) including monitoring
- Third party verified LCA on main components and on project level
- Monitoring on environmental impact from OFW
- New Marine Nature Fund (67 mio. EURO)
  - Where 10 million EURO to create a new digital infrastructure for marine data and an analytical tool to assess cumulative effects

We keep working

- Follow up on our recommendations on how to consider the marine environment when building offshore wind farms – part 2
- Planning an international conference in September: “The Blue Consequences of the Green Transition”
  - *Navigating Cumulative Effects, Knowledge Gaps, and Risks and Opportunities in Large-Scale Offshore Wind Farming in the North Sea. 17-18 September 2024*
- Planning a project about cumulative effects on small scale - in the Bay of Køge in Denmark
- Follow up on our published recommendations on Maritime spatial planning and ecosystem based approach, where cumulative effects are a crucial part

Ocean INSTITUTE

Ditte Mandøe Andreasen
Head of Programme
dma@taenetankenhav.dk
+45 30920001