Pelagic ADVISORY COUNCIL

Joint PelAC/NWWAC Horizontal Working Group

14 March 2024
Dublin Castle, Dublin

Co-Chairs: Gonçalo Carvalho &
Alexandra Phillippe

CONSEIL CONSULTATIF POUR LES EAUX OCCIDENTALES SEPTENTRIONALES
NORTH WESTERN WATERS ADVISORY COUNCIL
CONSEJO CONSULTIVO PARA LAS AGUAS NOROCCIDENTALES

Agenda (I)

CONSEIL CONSULTATIF POUR LES EAUX OCCIDENTALES SEPTENTRIONALES
NORTH WESTERN WATERS ADVISORY COUNCIL
CONSEJO CONSULTIVO PARA LAS AGUAS NOROCCIDENTALES

09:00	Opening of the meeting by the OIG vice Chairs
09:10	Adoption of the agenda
09:15	***Part I Marine Spatial Planning***

- Report on the joint PelAC/NWWAC FG on Spatial Dimension
- Identification of joint topics
- Priorities joint FG Spatial Dimension for 2024

09:40	Presentation potential ecosystem effects of large-scale ORE – Deltares
10:20	Presentation Marine Protected Areas bill (Ireland) – Richard Cronin DHLGH
10:45	Break

Agenda (II)

CONSEIL CONSULTATIF POUR LES EAUX OCCIDENTALES SEPTENTRIONALES | NORTH WESTERN WATERS ADVISORY COUNCIL | CONSEJO CONSULTIVO PARA LAS AGUAS NOROCCIDENTALES

11:00	***Part II Control Regulation***
	• Reporting on Inter-AC meeting on CR 6 February 2024
11:15	Exchange: issues identified by both ACs
12:15	Next steps
	• Identification common issues
	• Roadmap for development joint-advice
12:35	Listing of agreed action items
12:50	AOB
13:00	End of meeting

Lunch served between 13:00 – 13:45 lunch

Part I

Marine Spatial Planning

Joint PelAC/NWWAC FG Spatial Dimension

- First meeting of the joint FG Spatial Dimension held 31 January 2024.
- Presentations on:
    - The European Blue Forum – by Commission
    - The EU Wind Power Package – by Commission
    - Working Group of Offshore Wind Development and Fisheries (WGOWDF) – by ICES
    - Greater North Sea Basin Initiative (Ministry Infrastructure & Water Management (NL)
- Discussion scope and priorities Focus Group.
- FG report available on ACs websites.

Joint PelAC/NWWAC FG Spatial Dimension

- Priorities identified by FG:
    1. Marine Spatial Planning and broader activity mapping (different sea basins)
    2. ORE as a continuous priority under MSP
    3. MPAs from a MSP angle – linked to sensitive habitats
    4. Deep-sea mining – monitoring relevant developments (lower prioritisation)
- Proposals possible recommendations:
    - Ask Commission and MS for status update on MS pledges and timelines under Marine Action Plan
    - Underline need for overview activity mapping different sea-basins (following GNSBI example)
- Other actions:
    - Invite ICES for regular updates on work of WGOWDF
    - Update FG TOR

Defining 2024 Focus Group priorities

Proposals:

- Marine Spatial Planning and broader activity mapping (different sea basins)
    - Discuss position paper European Blue Forum
- ORE developments
    - Suggestion PelAC: Invite ICES for presentation on ORE Roadmap
    - Suggestion NWWAC: Follow-up on Seafood ORE Subgroup Ireland
- Deep-sea mining
    - Suggestion PelAC: update previous joint LDAC-NWWAC-PelAC advice (2021) following recent developments Norway
- MPAs
    - Take stock of MS pledges under Marine Action Plan
    - Follow processes at MS level

Potential ecosystem effects large-scale ORE

Presentation by Luca van Duren – Deltares

Potential ecosystem effects of large-scale implementation of offshore wind in the North Sea

Luca van Duren, Lauriane Vilmin, Firmijn Zijl, Stendert Laan, Thijs van Kessel, Vincent van Zelst, Luka Jaksic, Erik Hendriks, Lisa Schneider, Jelle Rienstra, Jaap van der Meer

14 March 2024

Background

OSTEND DECLARATION OF ENERGY MINISTERS

ON

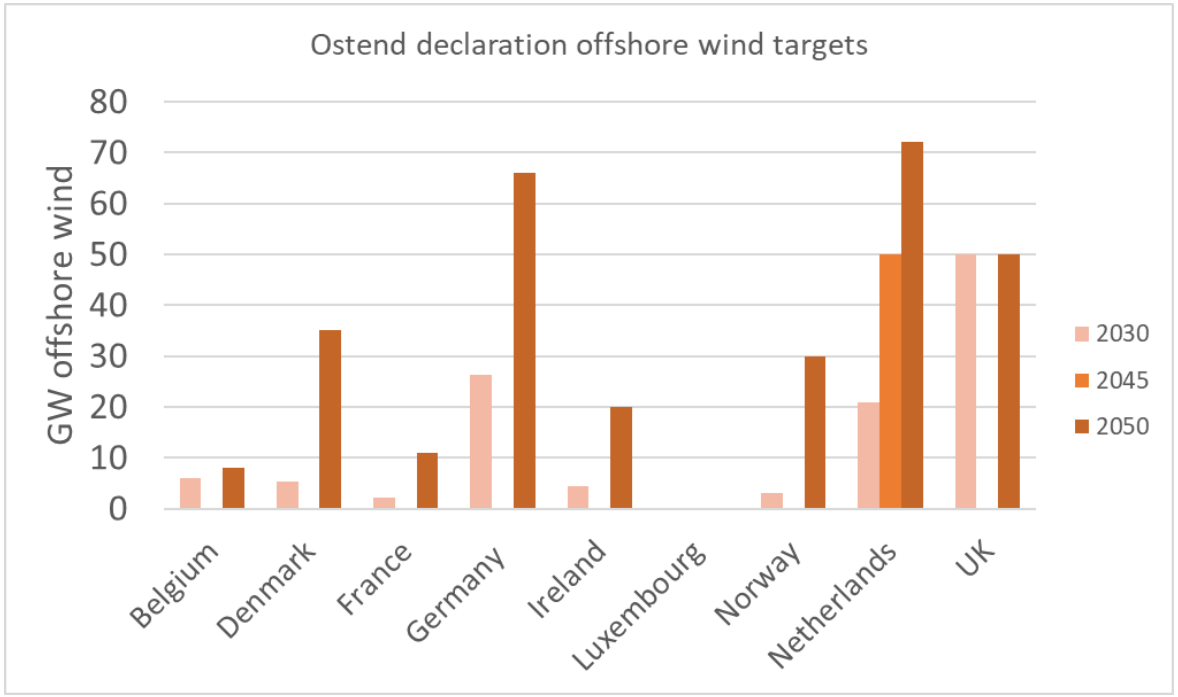
THE NORTH SEAS AS EUROPE'S GREEN POWER PLANT

DELIVERING CROSS-BORDER PROJECTS

AND ANCHORING THE RENEWABLE OFFSHORE INDUSTRY IN EUROPE

Recalling the declaration on the North Seas as a Green Power Plant of Europe in Esbjerg signed by the energy ministers of Belgium, Denmark, Germany and the Netherlands on 18 May 2022.

The energy ministers of France, Ireland, Luxembourg, Norway and the United Kingdom are joining this Ostend declaration.



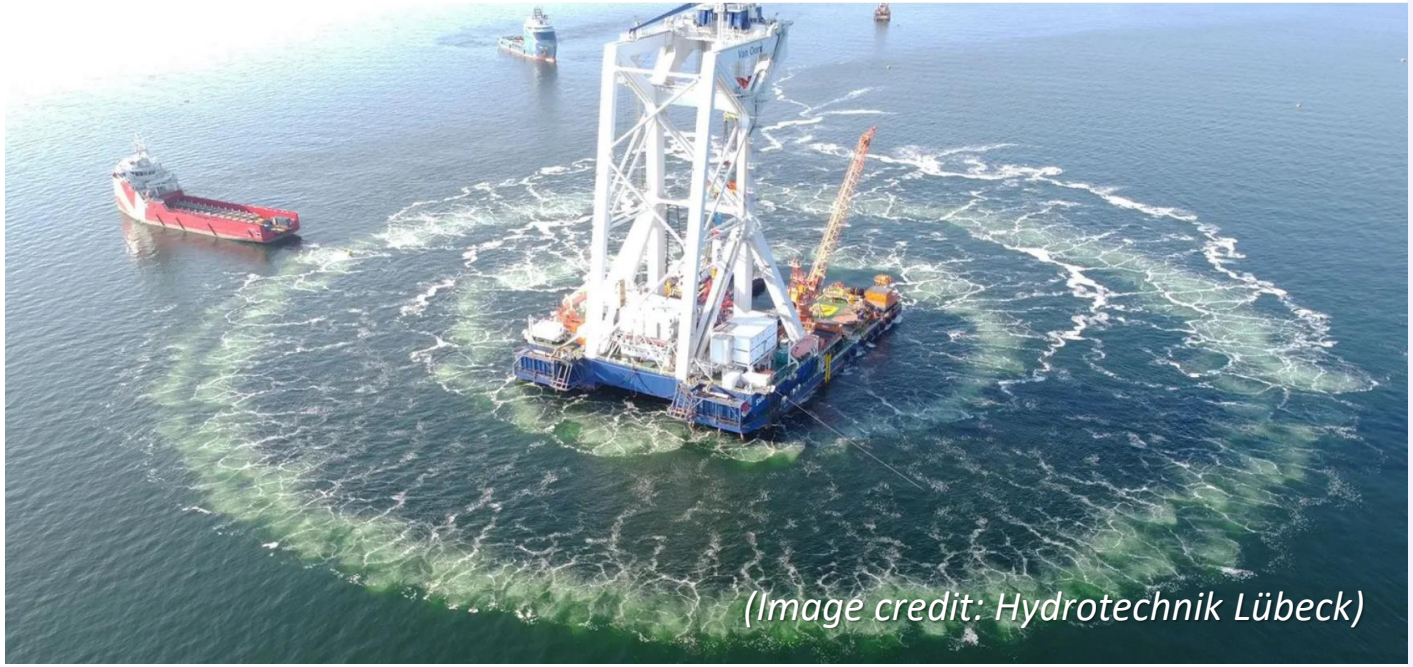
Targets North Sea humongous

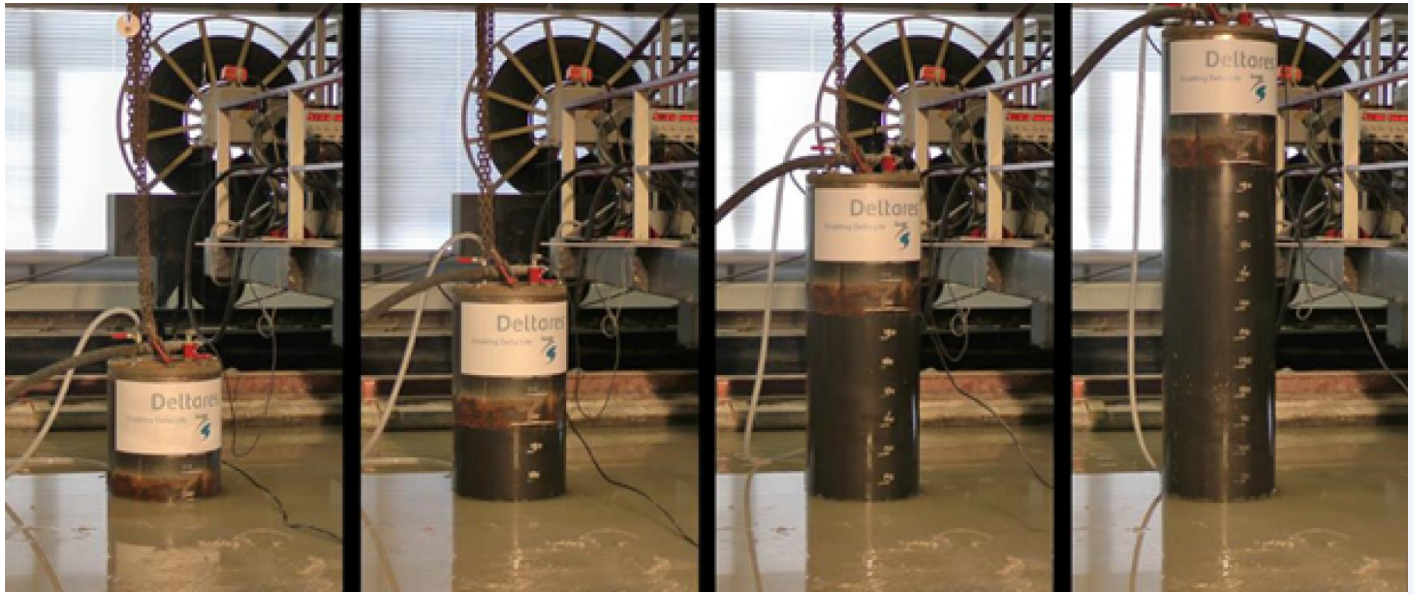
- Key issue North Sea
- Not adequately researched

Deltares WAGENINGEN UR For quality of life

Phases

- Construction
- Operation
- Decommissioning





The WOZEP programme

DUTCH GOVERNMENTAL OFFSHORE WIND ECOLOGICAL PROGRAMME

WOZEP assesses the impact of future OWF scenarios

- Cause – effect relations
- Development of models
- Long term monitoring data and model input
- Direct effects on protected species
- Indirect effects via habitat change
- Ecosystem effects

Knowledge gaps

Above water: collision/displacement



Under water: noise, habitat, EMF



Marine foodweb – crash course

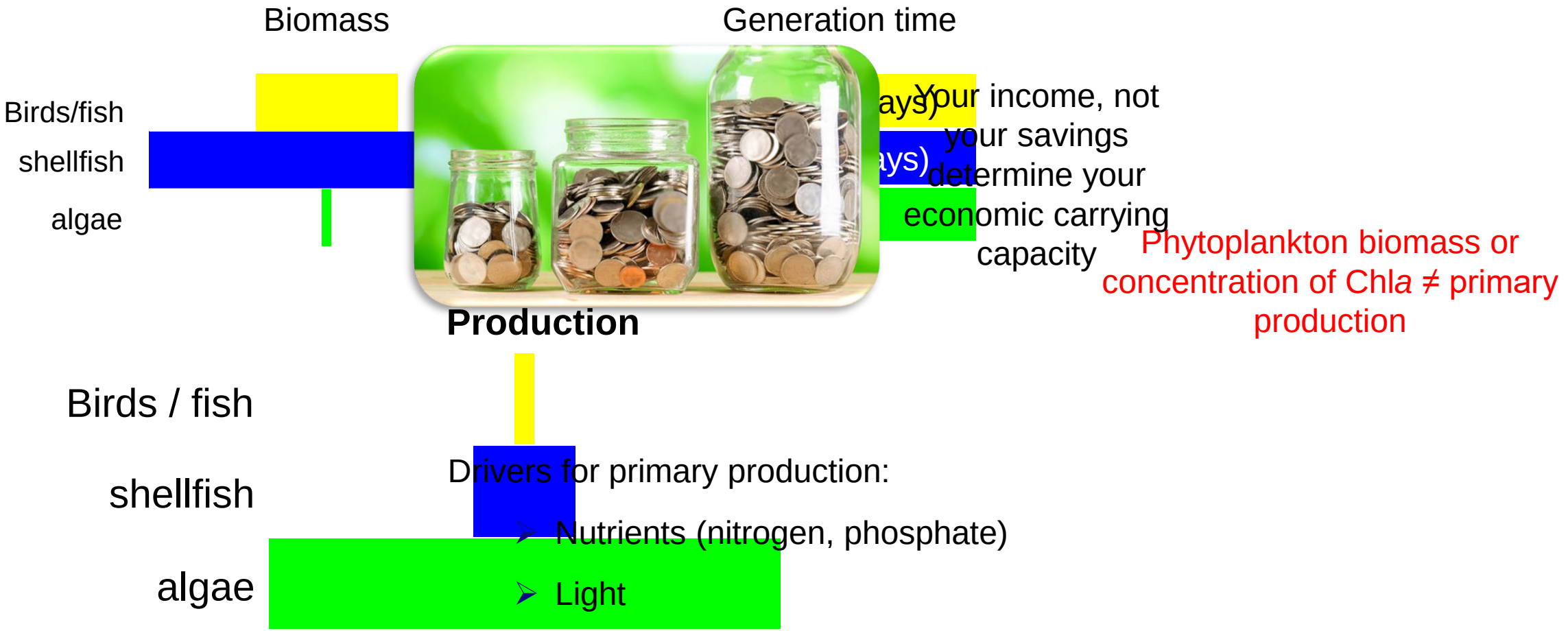
Birds, fish, marine mammals

‘Grazers’ – benthic, pelagic

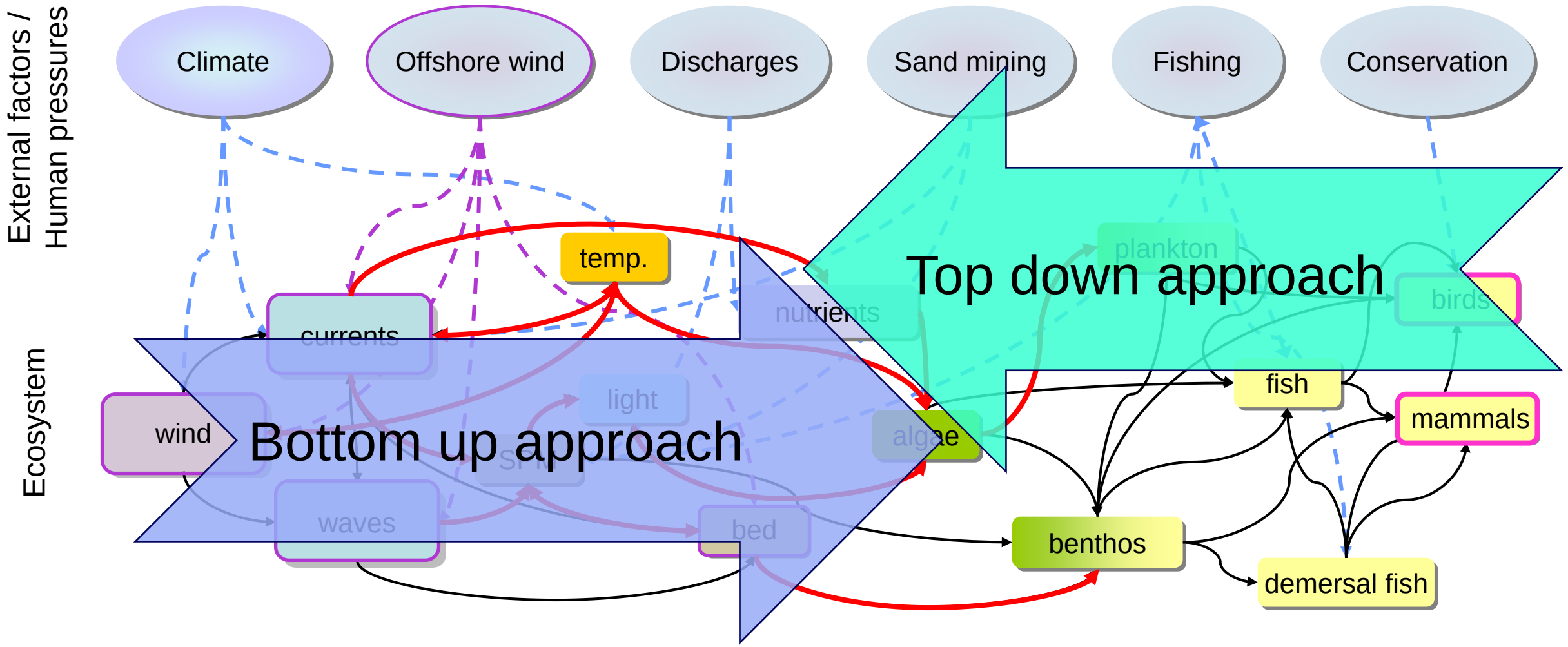
Algae – micro, macro
pelagic - benthic

- Most regulations concern birds, fish, mammals etc.
- Effects can be direct or indirect
- Effects on algae (primary producers) affect the carrying capacity of the system for all animals

Primary production (= ‘income’ of the foodweb)

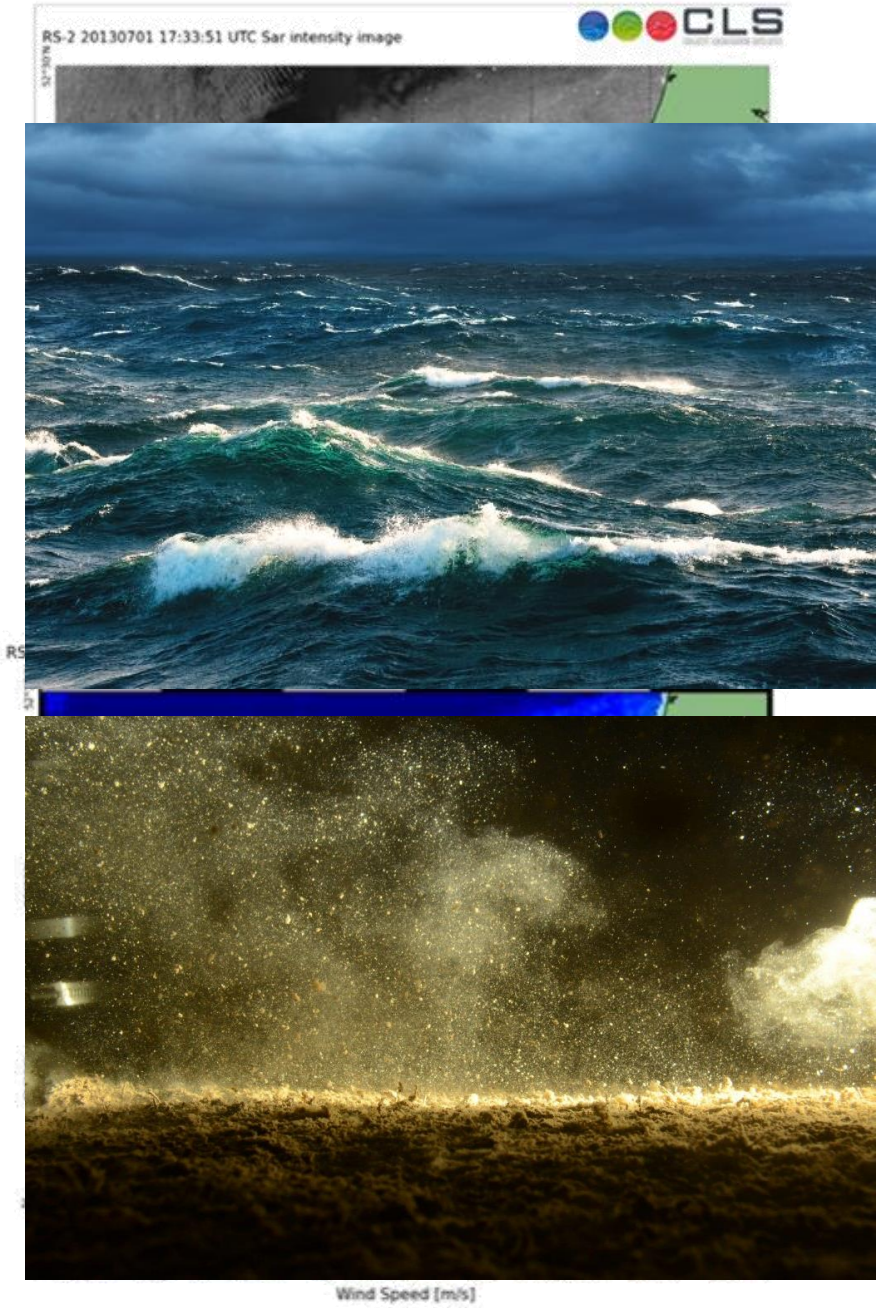


Effect chain



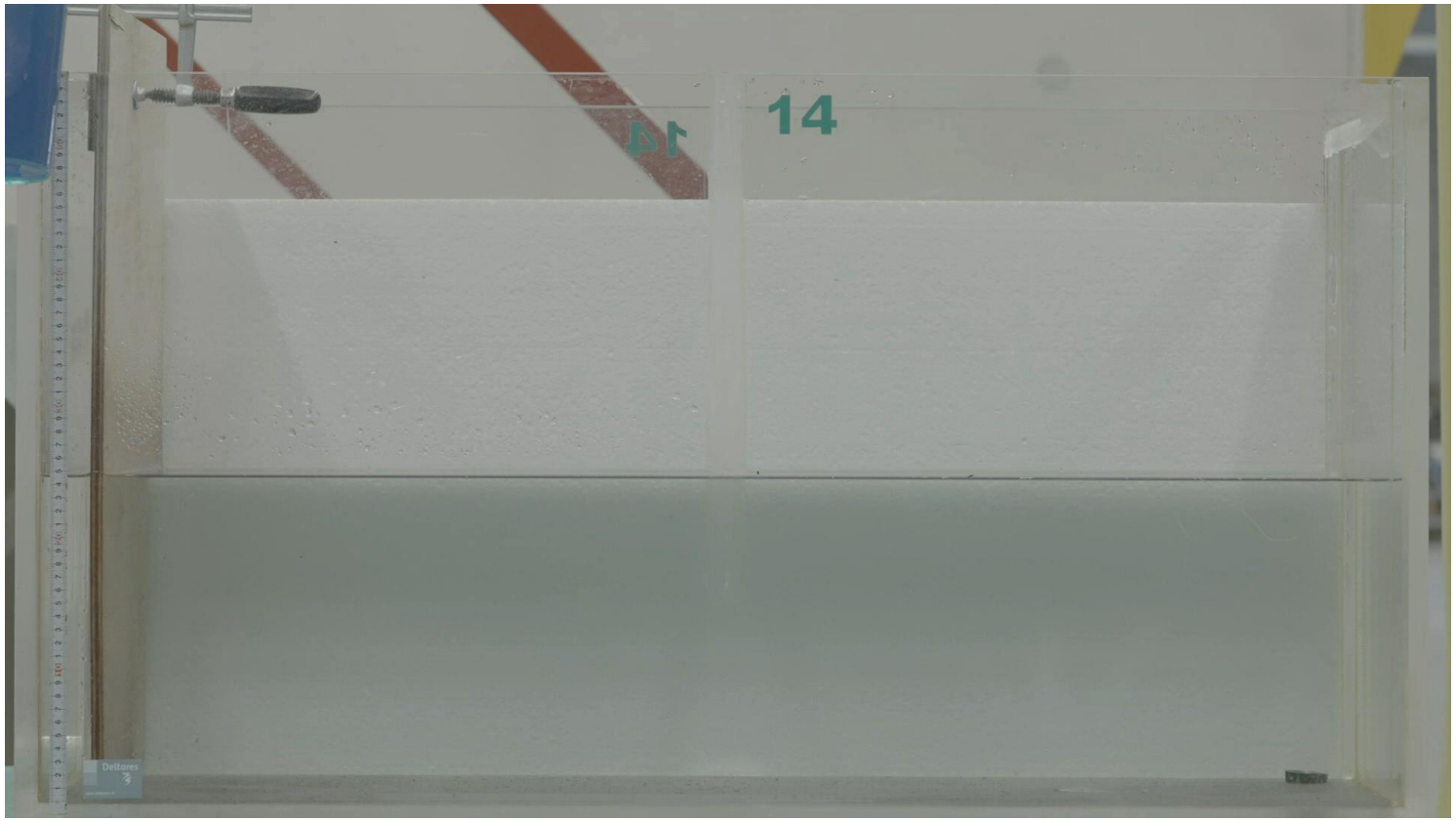
Effects in wind and water

- Processes around individual turbines and within wind farms reasonably well understood
- Large-scale processes (i.e. scale of southern North Sea) poorly understood – also by specialists.
- Wakes can be visible up to 70 km
- Wind drives waves
- Waves drive resuspension of sediment
- ➢ Potential for effects on the ecosystem – certainly with upscaling



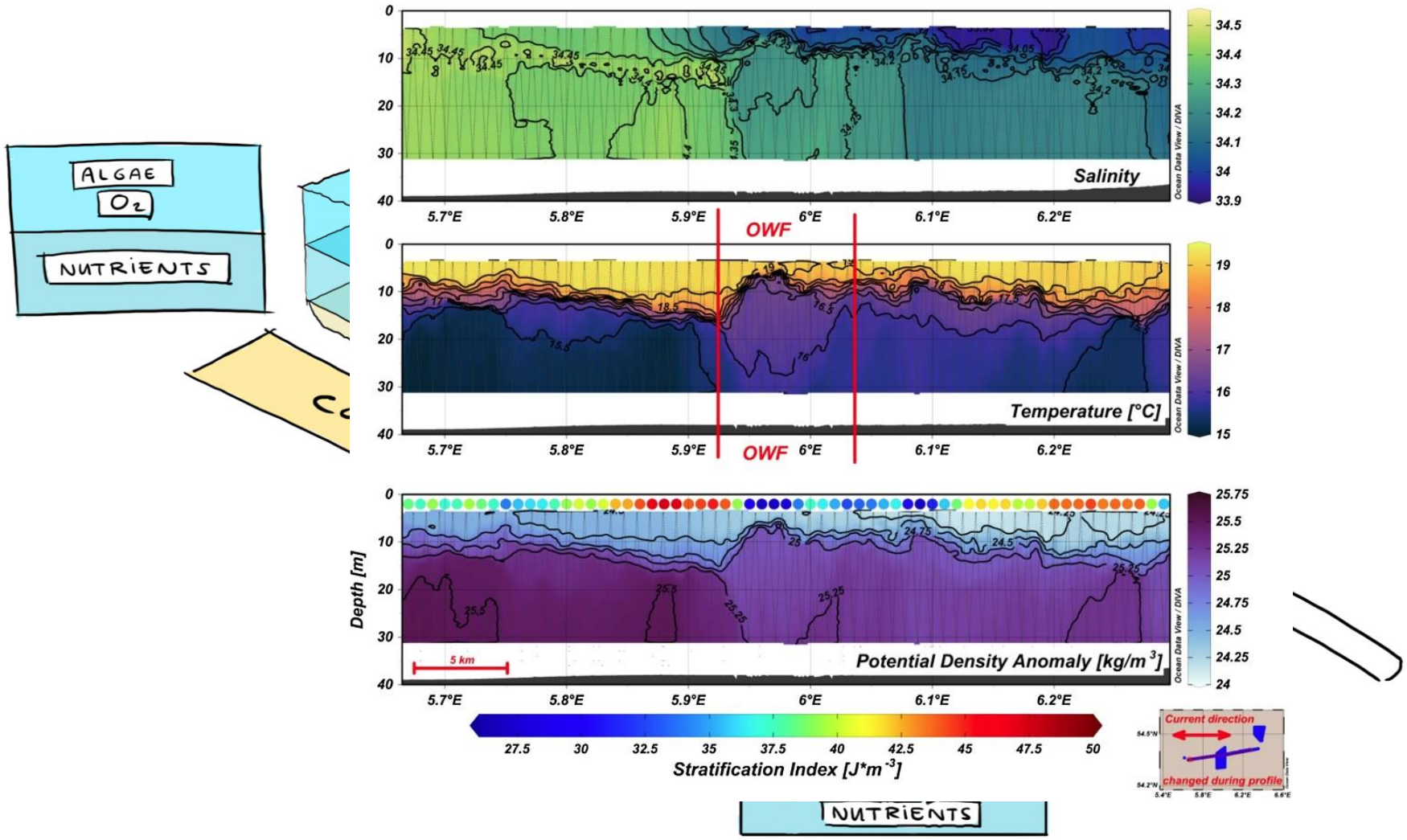
From: Hasager et al 2015

Stratification



- Salinity
- Temperature

Effects offshore wind stratification and mixing



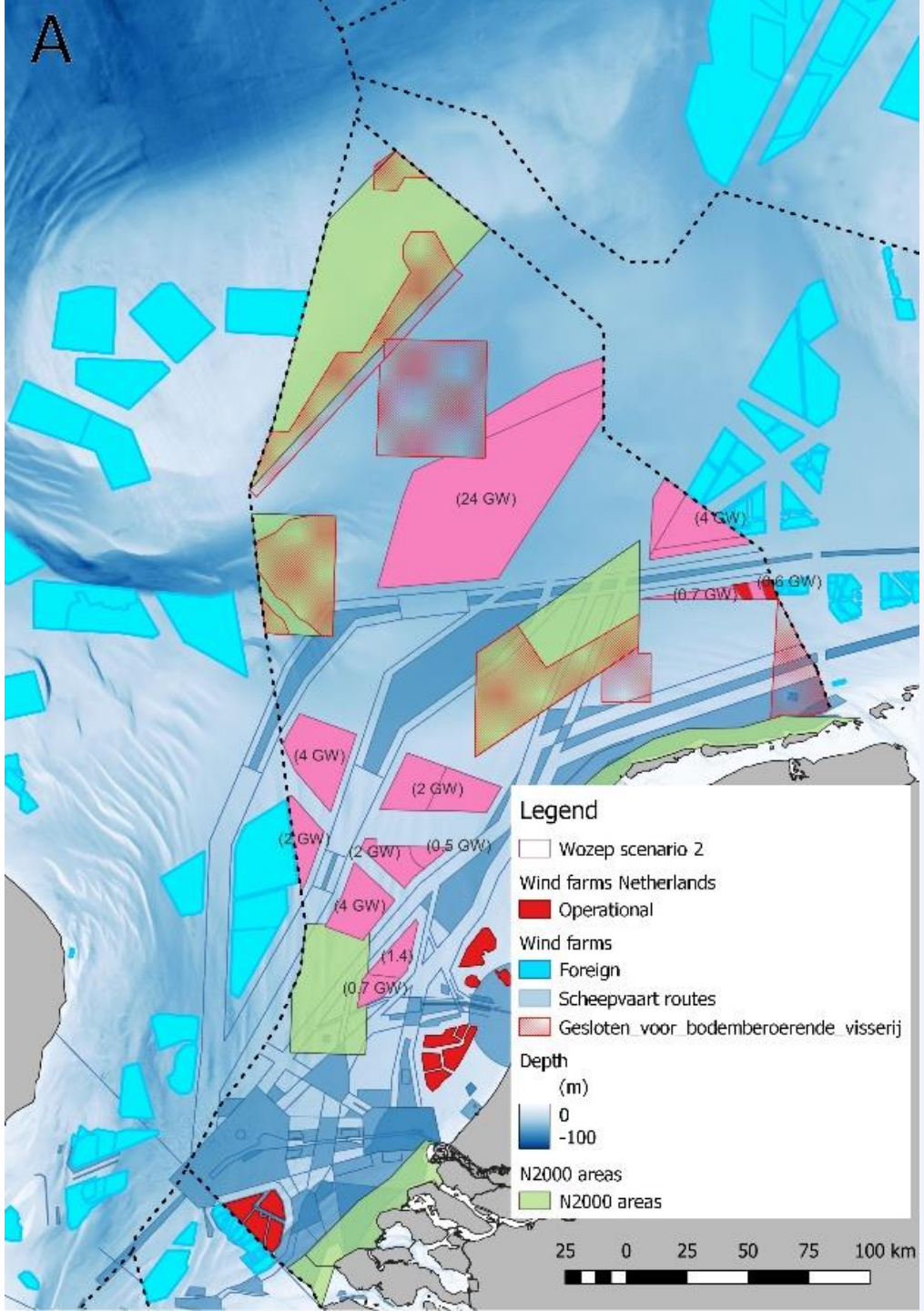
Offshore wind upscaling scenario

‘Last year most likely’ scenario for 2040

- Dutch OWFs based on published lay-out of search areas and current capacities for each wind farm as currently assumed by the government

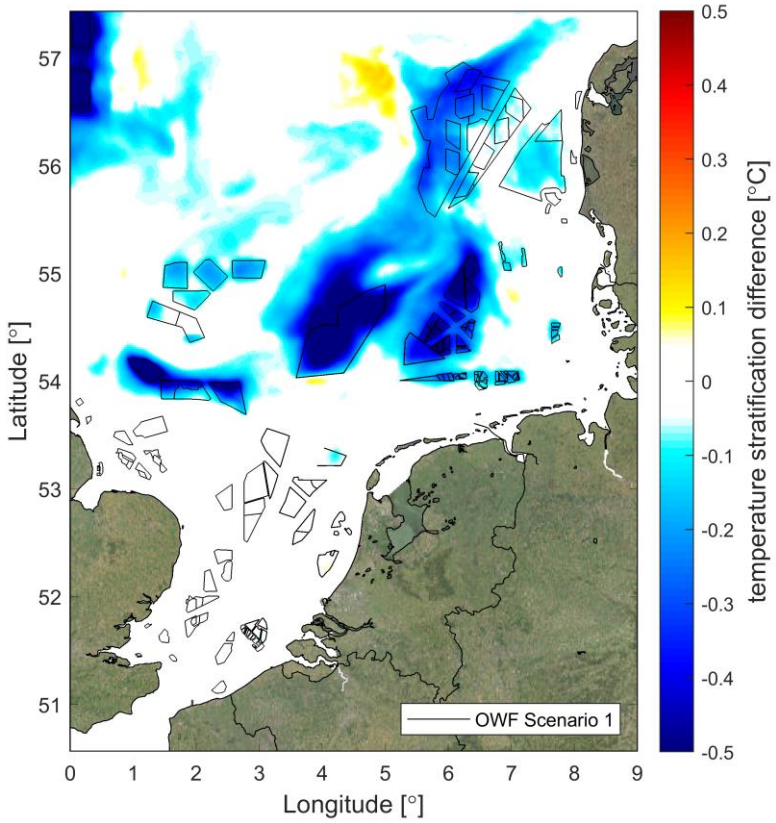
  = total capacity of 50.2 GW

- Other countries based on 4C-Offshore data
  - Note: current lay-outs in Germany and Denmark more extensive
- Total North Sea capacity of > 200 GW

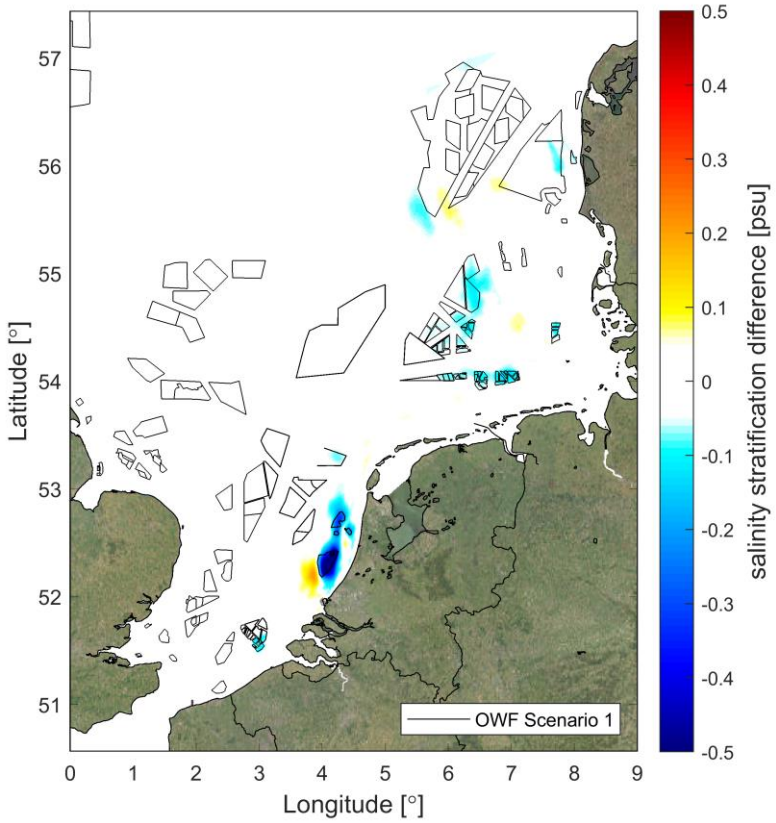


Impact of OWFs on stratification

Impact of scenario on *temperature stratification* (scenario – reference)

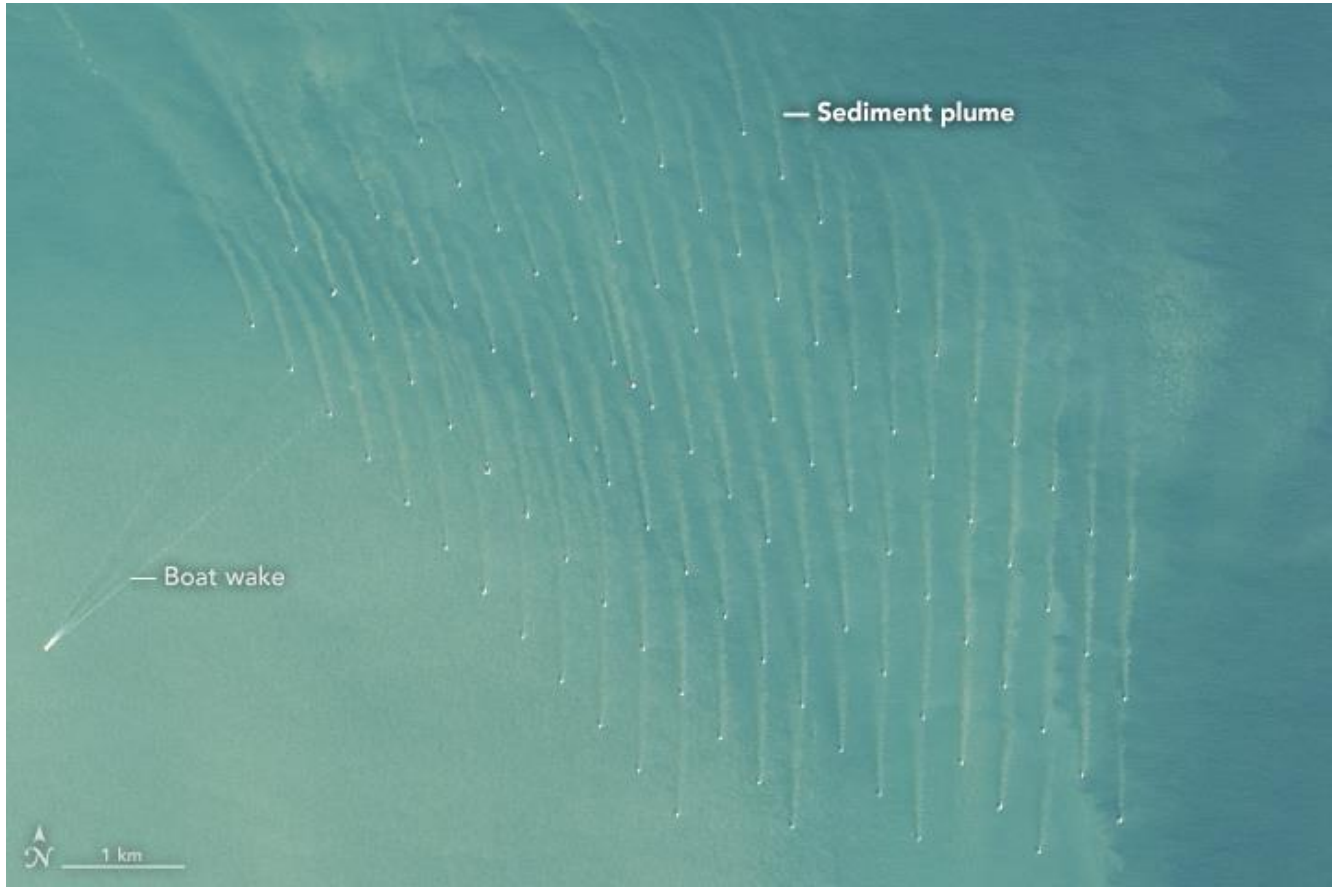


Impact of scenario on *salinity stratification* (scenario – reference)



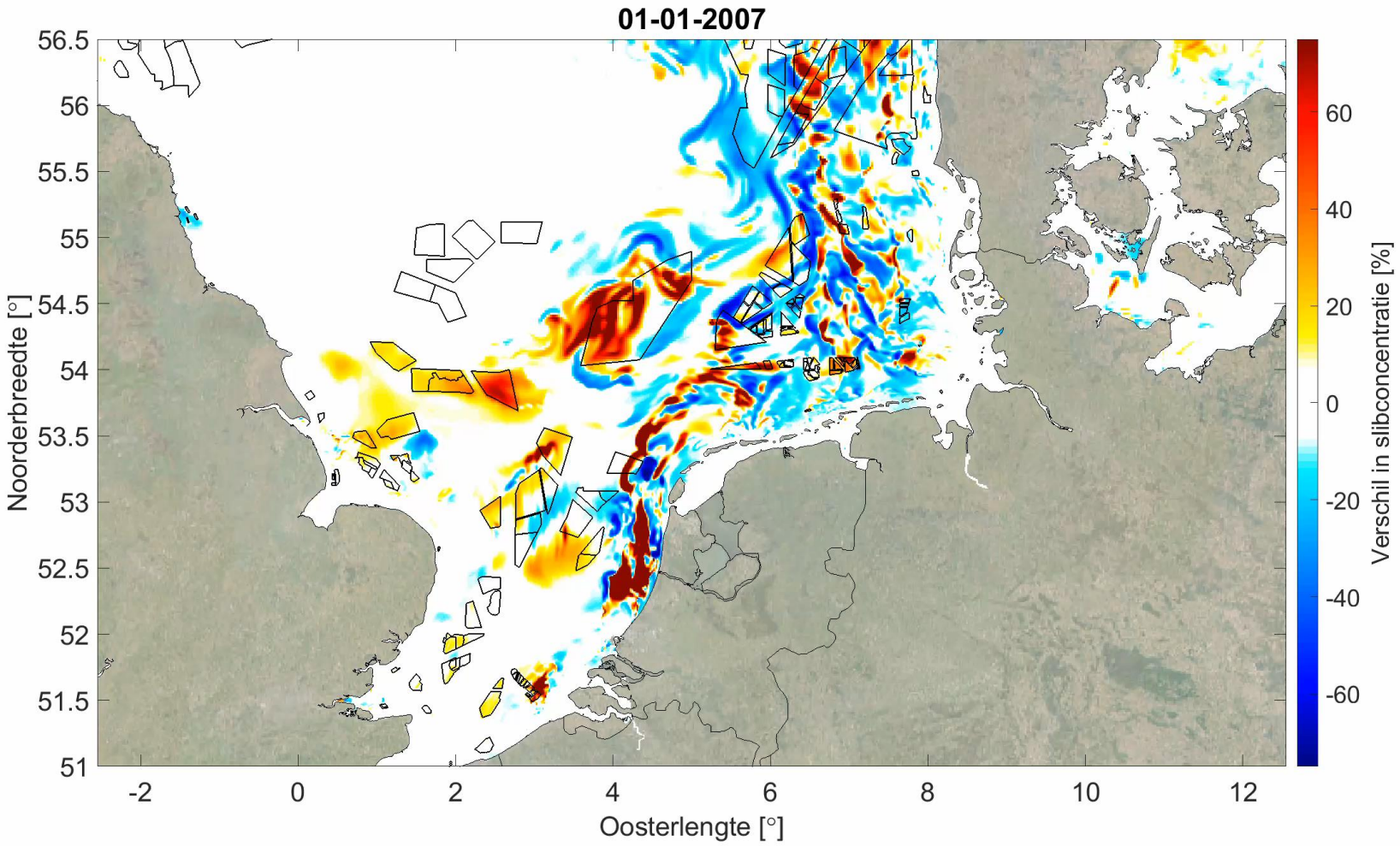
- Overall, reduced temperature stratification within OWFs
- Average annual relative difference up to 60% in many of the OWFs, especially in the northern part of the North Sea
- Impact on salinity stratification near the Dutch coast and minor effects in the German bight

Effects offshore wind fine sediment

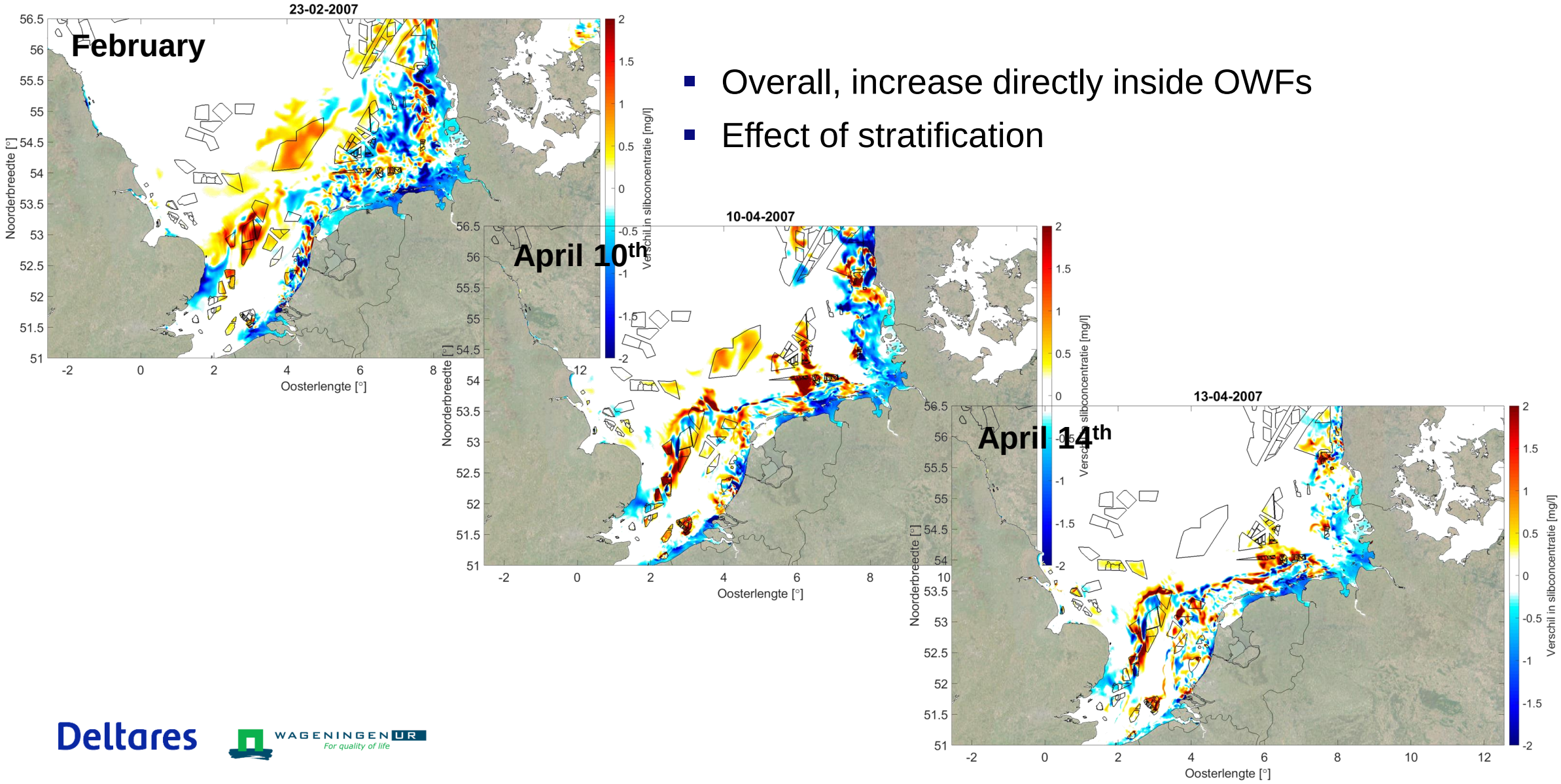


Fine sediment

Difference in SPM concentration

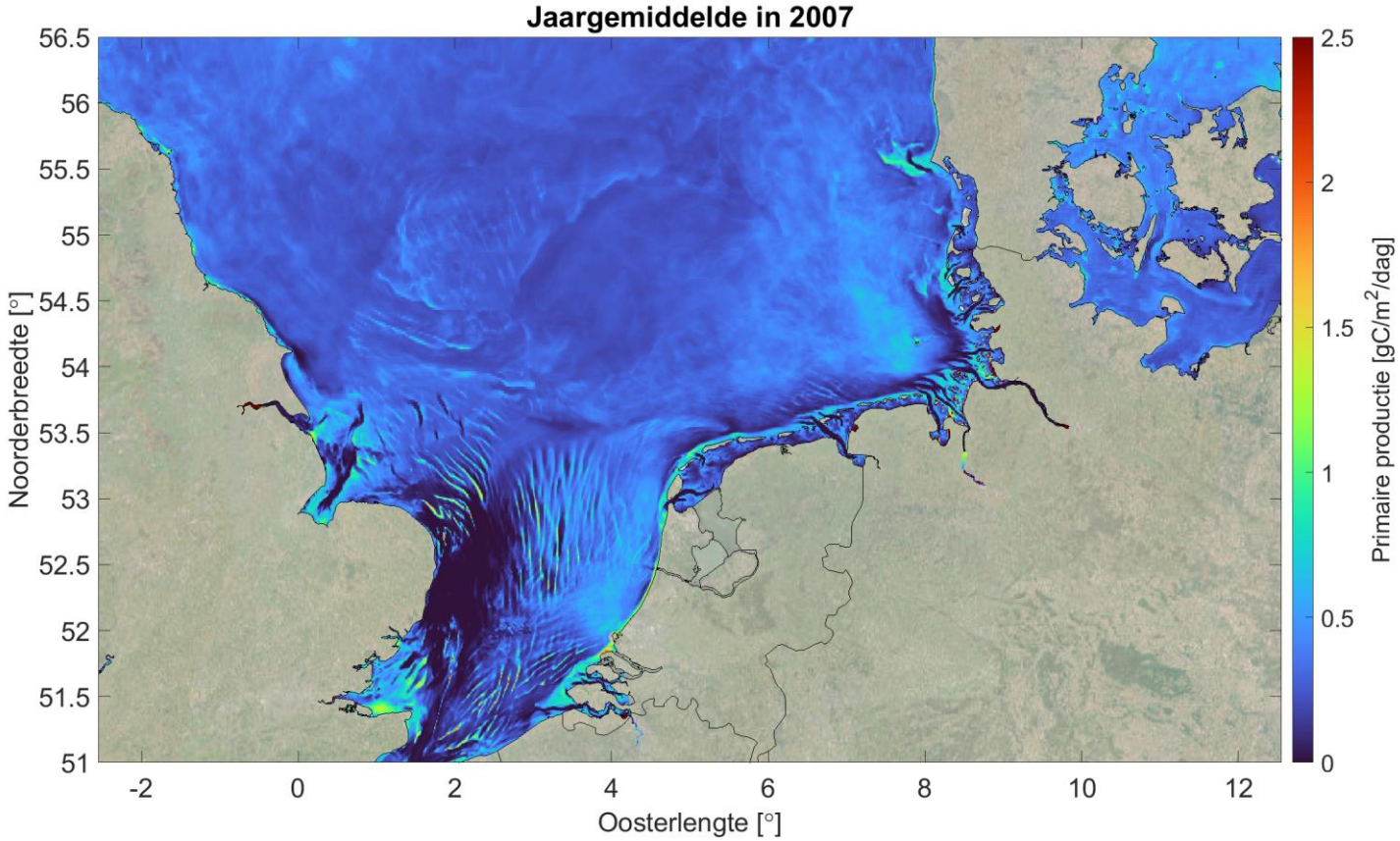


Impacts of OWFs on SPM dynamics



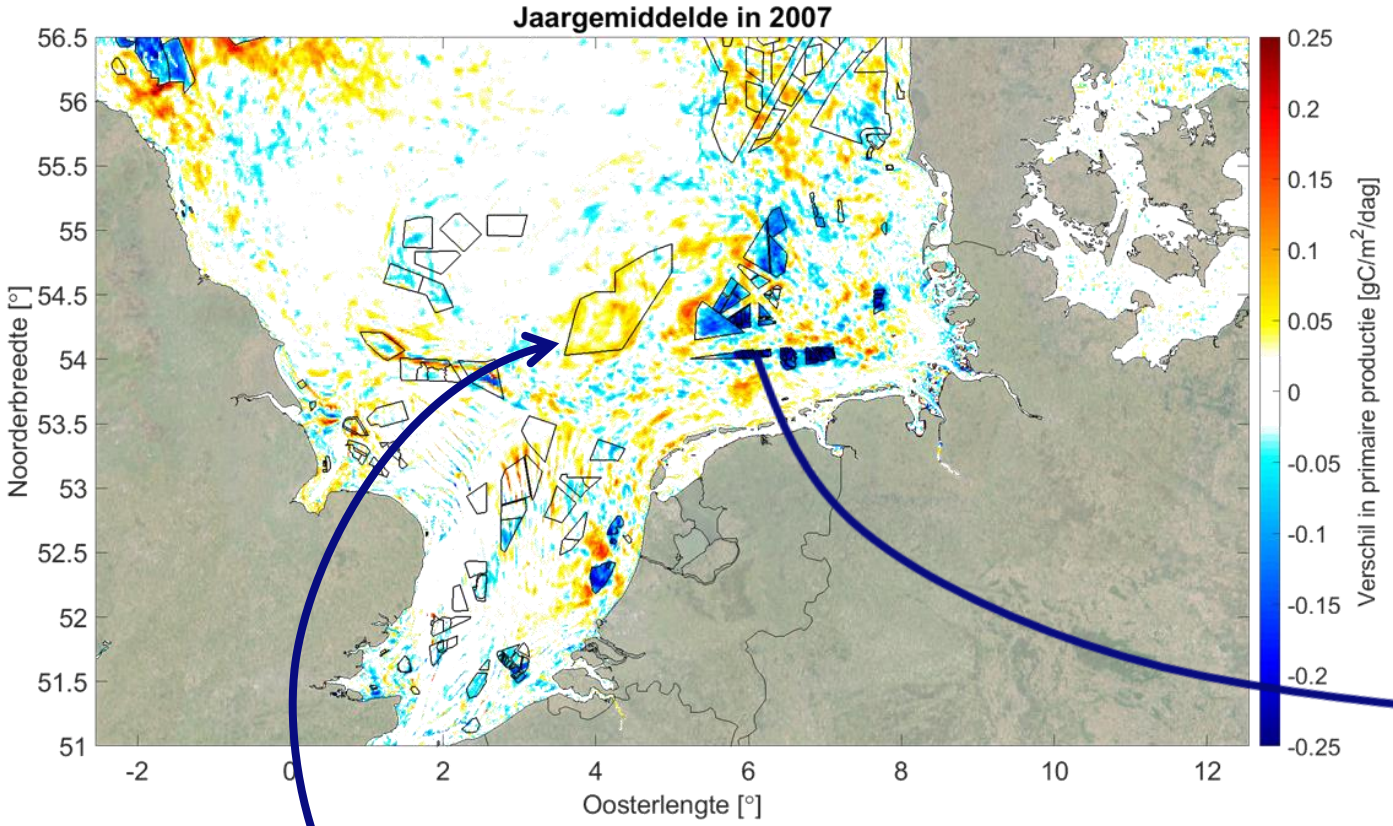
- Overall, increase directly inside OWFs
- Effect of stratification

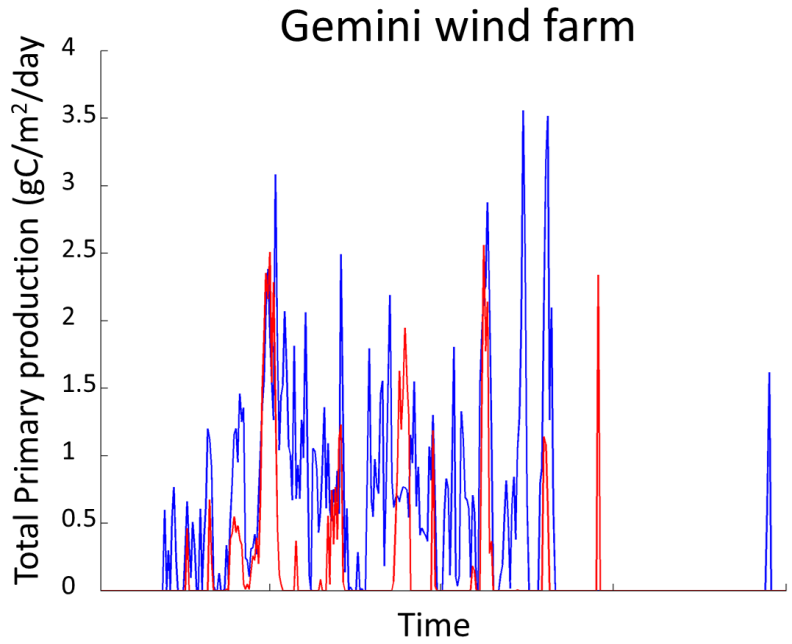
Primary production



◀ **Simulated yearly average primary production (gC/m²/day)**

Effects offshore wind primary production



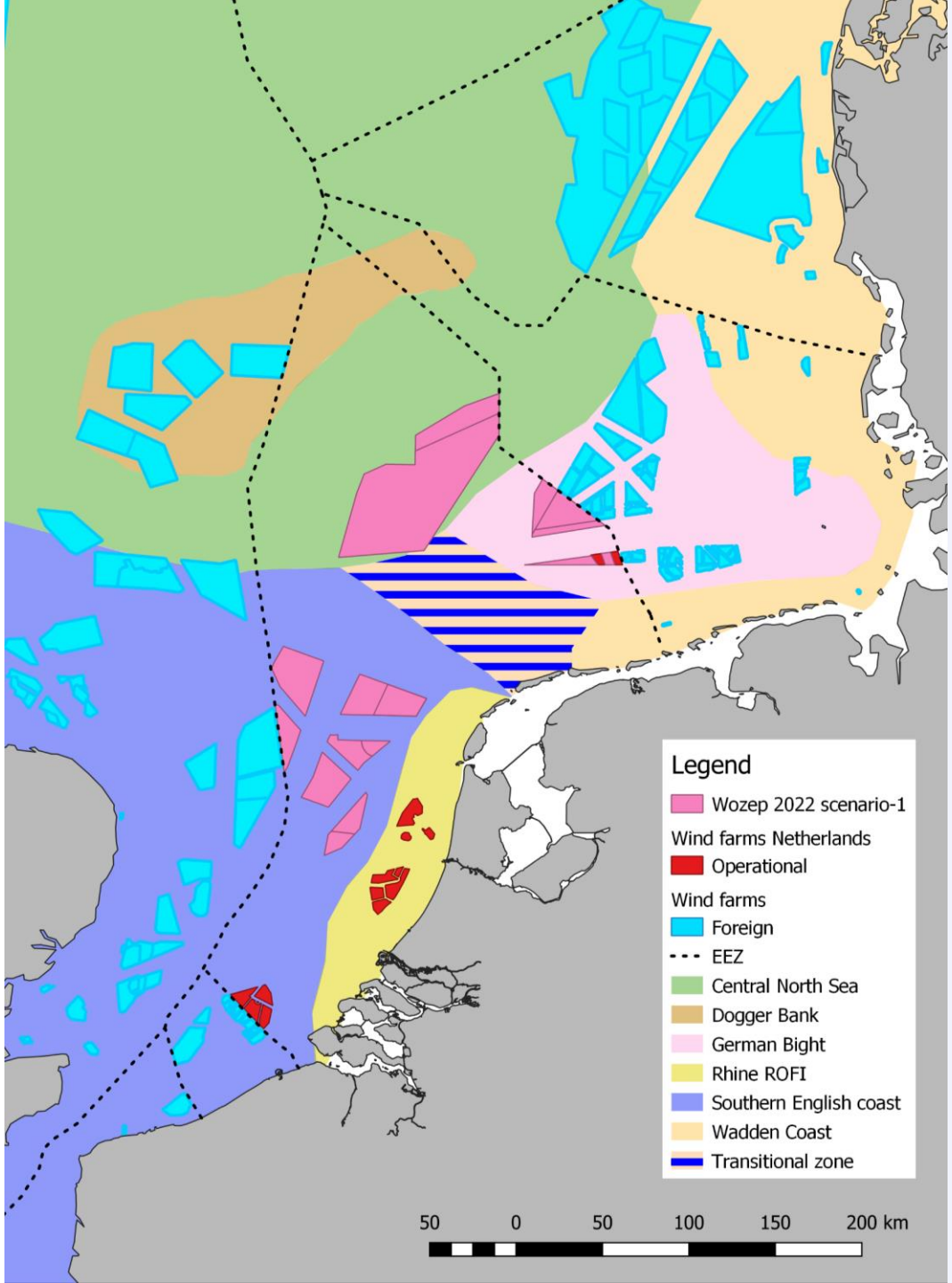


- Local reduction mean annual net primary production up to 60%
- Compensatory effects around wind farms
- Local increase (search area 6/7) >40%
- Delays in spring bloom

Deltares WAGENINGEN UR For quality of life

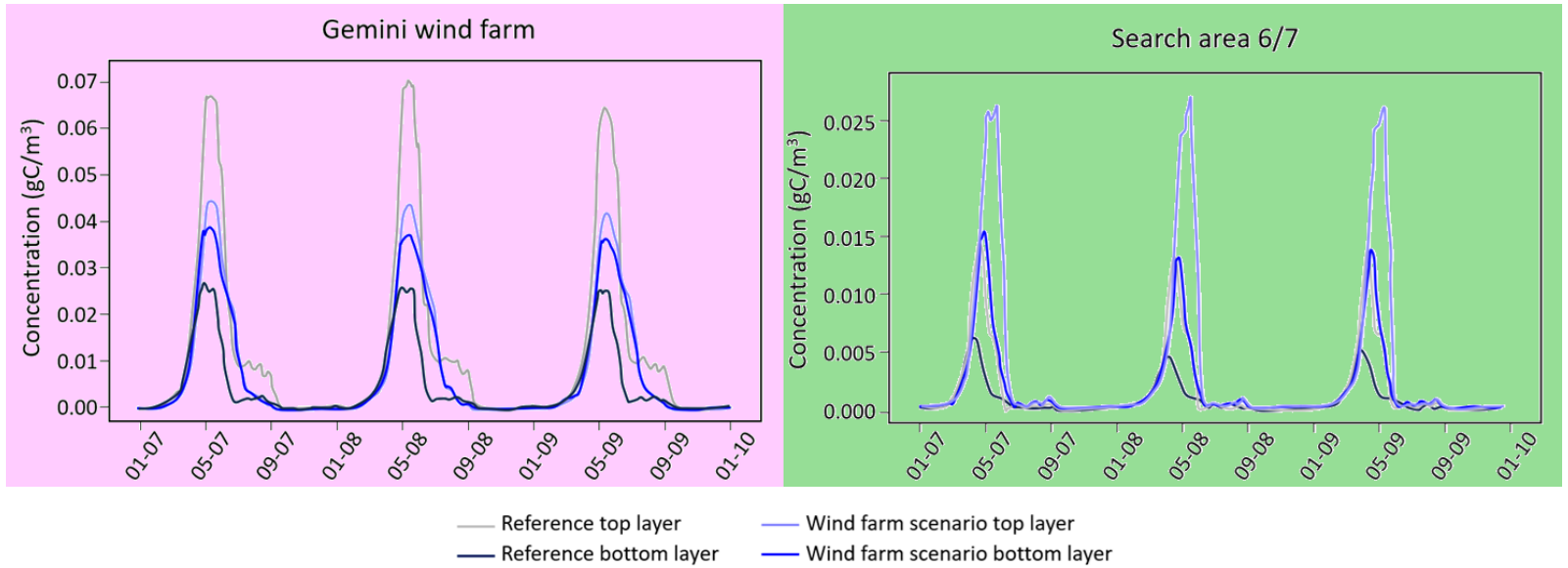
Spatial differences

- Visible effects on primary production due to changes in stratification and SPM
  - Central North Sea – destratification dominant
  - German Bight – complex, SPM dominant
  - English coast and Wadden coast – effects minor – some negative effects SPM
  - Rhine ROFI – impact on SPM transport
  - Dogger bank – minor impact
- Impacts for higher trophic levels likely in some parts of the North Sea
- Currently gap in knowledge: zooplankton and fish → work in progress

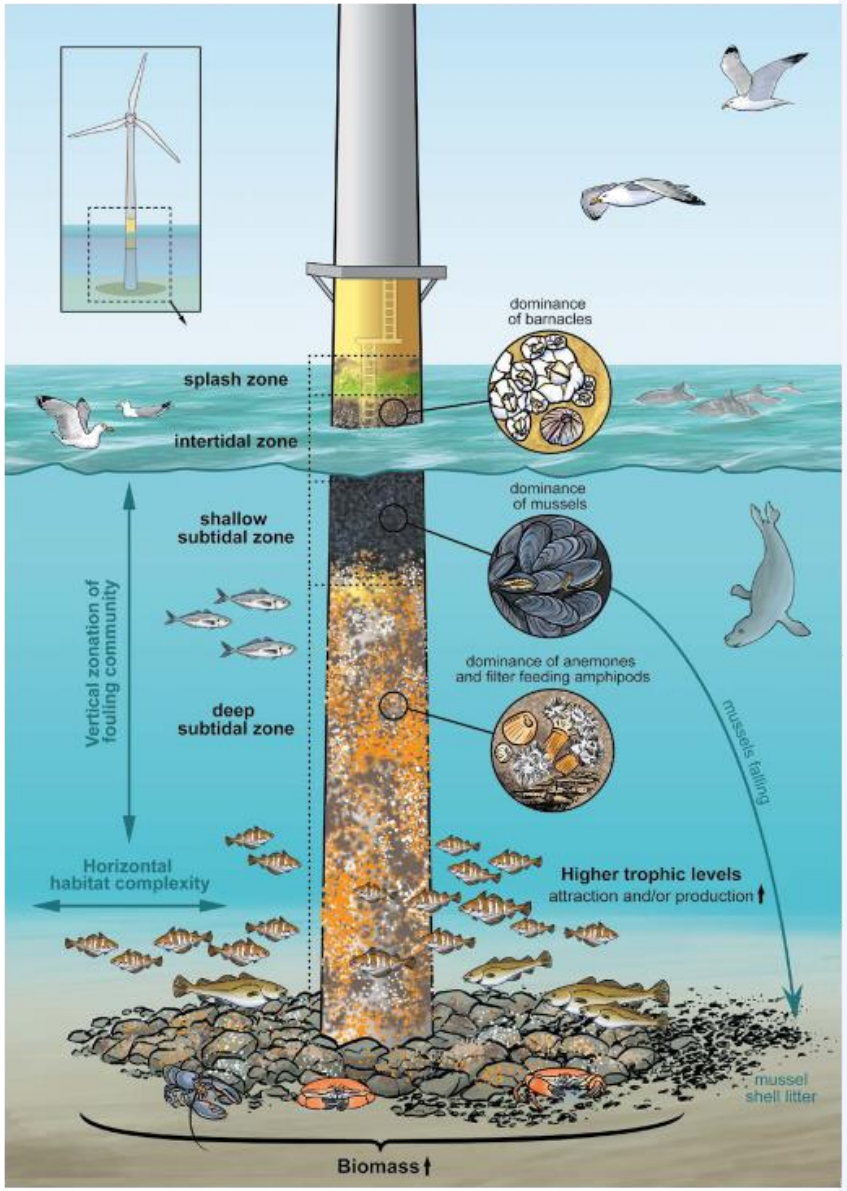


Effects offshore wind on grazers

Zooplankton concentrations

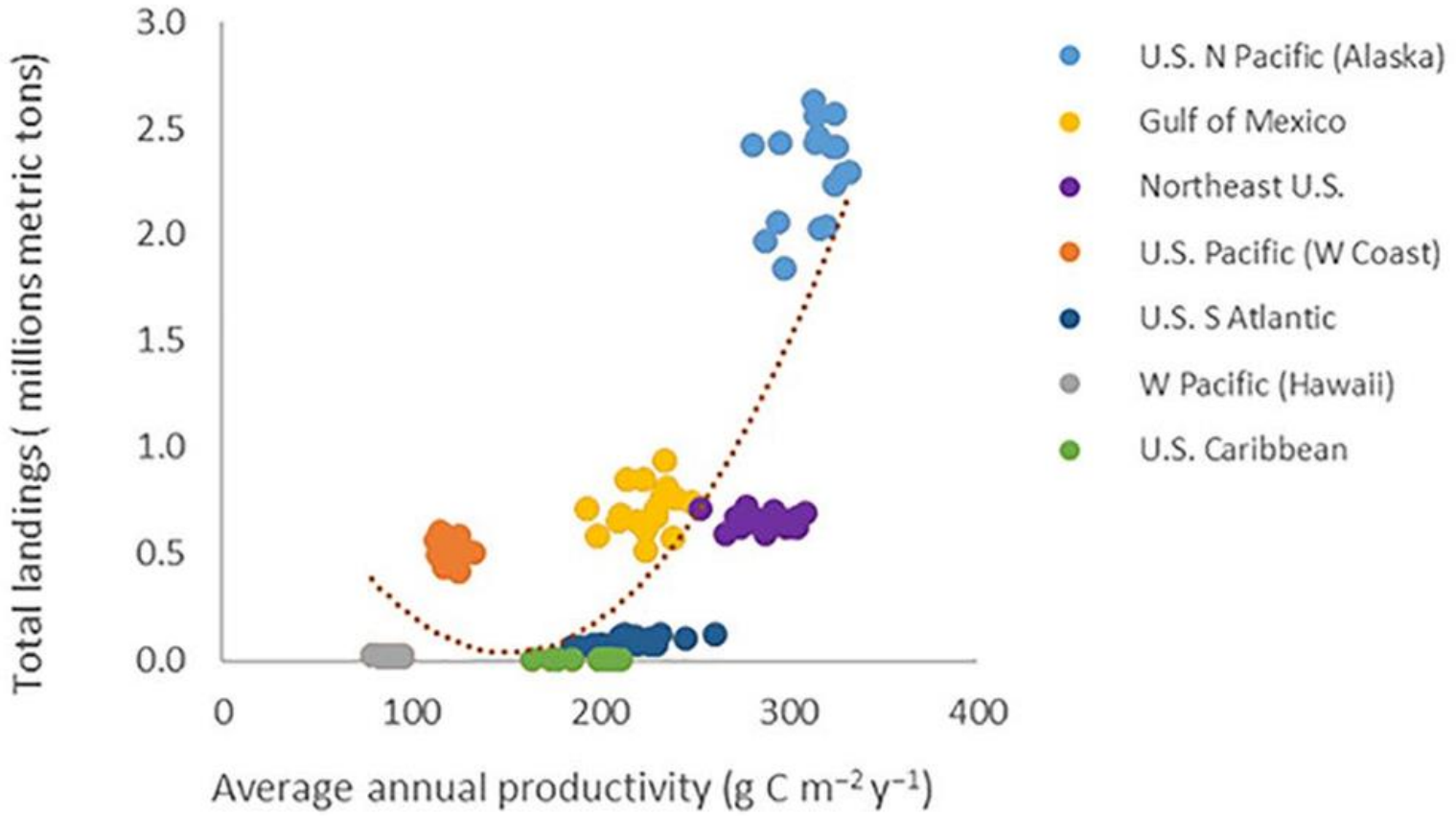


- Competition
- Primary Production



Degraer et al Oceanogr. 2020

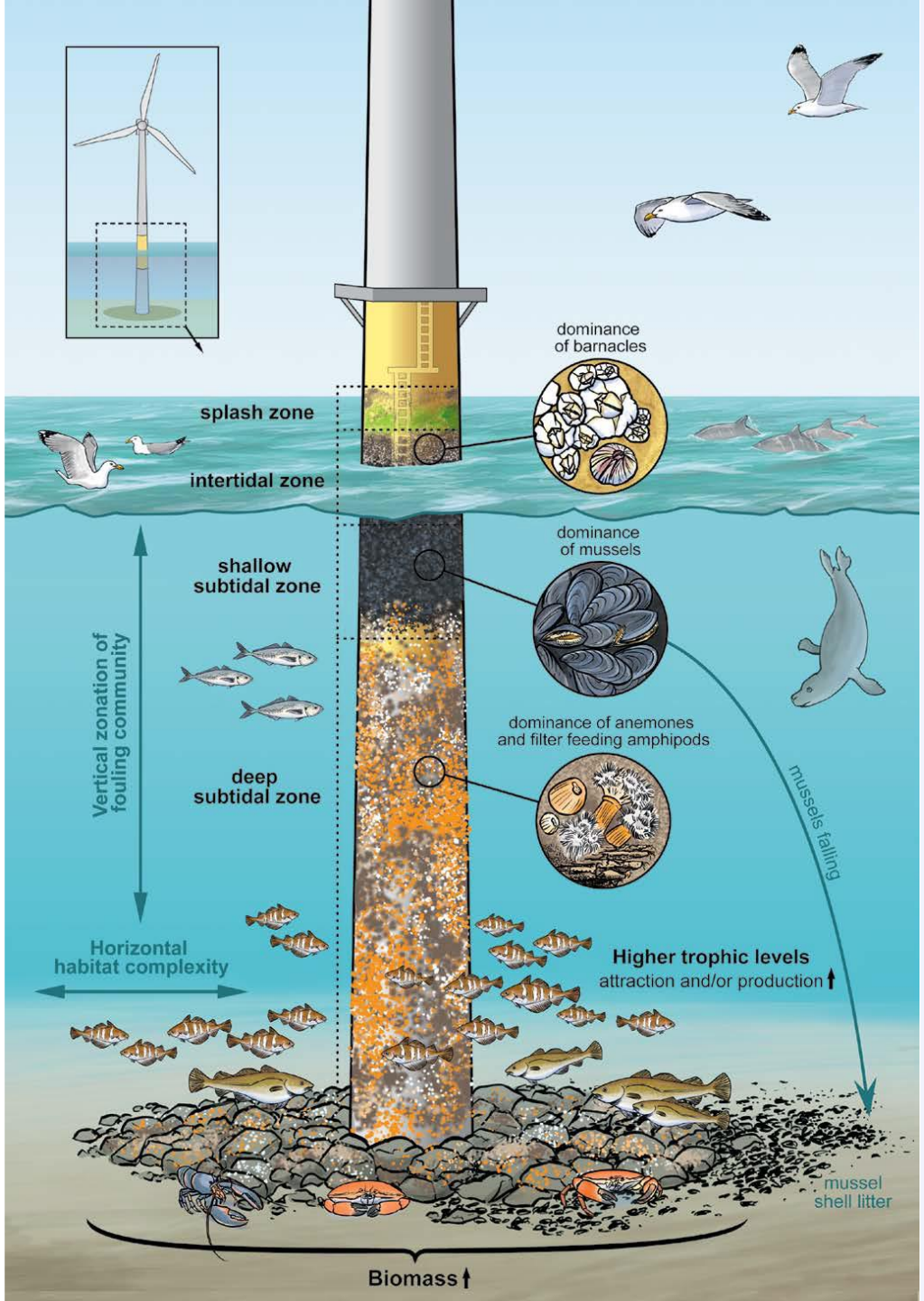
Effects offshore wind cascade up the foodweb



Marshak & Link 2021

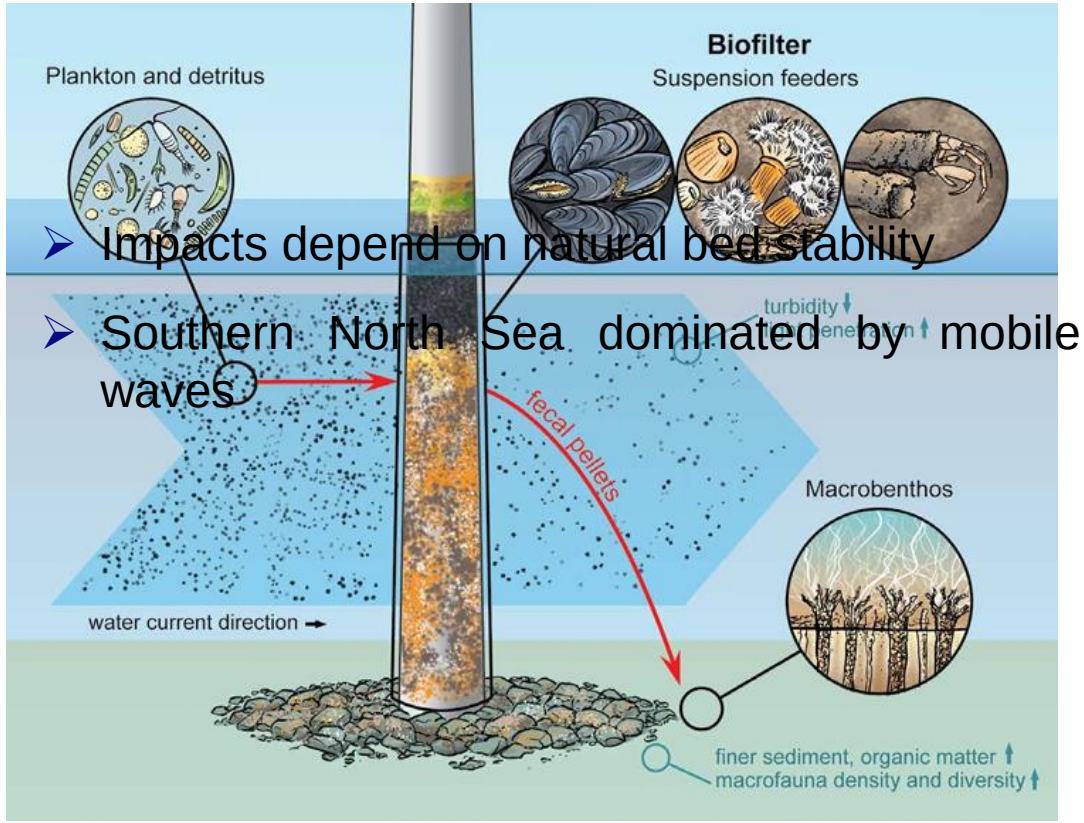
Reef effect

- Attraction of demersally feeding species (cod, pouting etc.)
- High site fidelity of plaice in OWFs; OWFs protect plaice during the feeding season, but not during spawning migrations
- Further impications of impacts unclear (e.g. is attraction indeed more production?)
- Bottom up cascade effect via the foodweb in its infancy



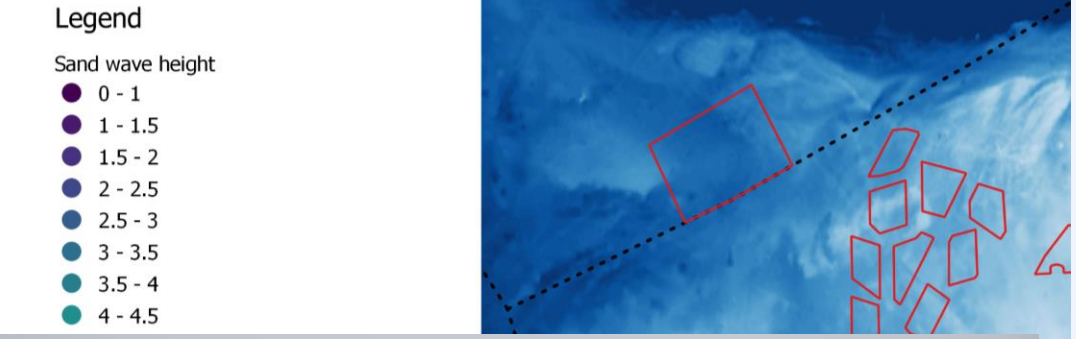
Work by RBINS, UGent

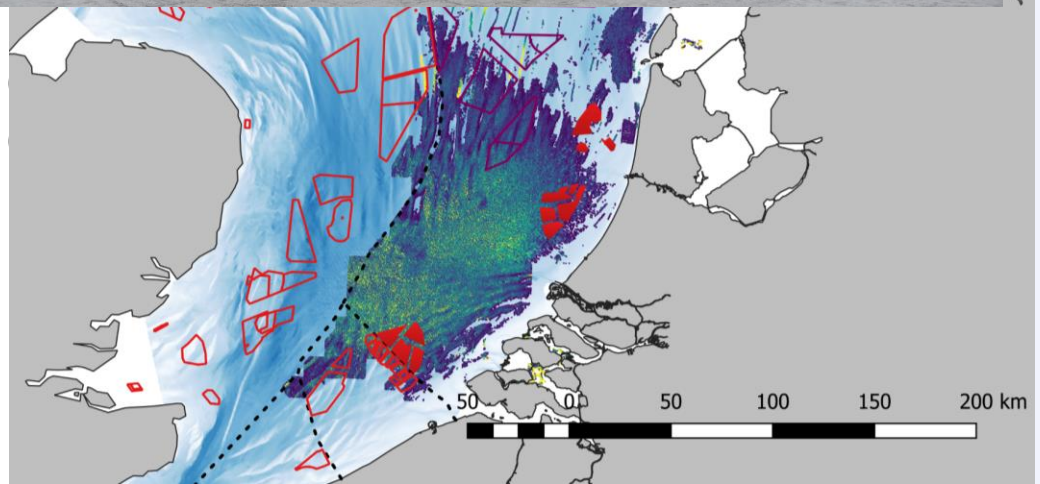
Bed effects



- Impacts depend on natural bed stability
- Southern North Sea dominated by mobile s waves

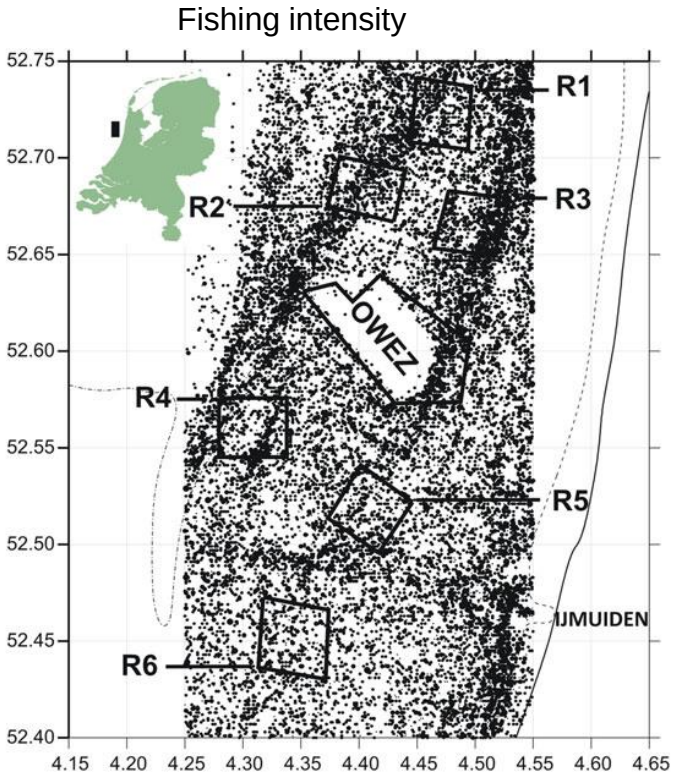
Degraer et al Oceanogr. 2020



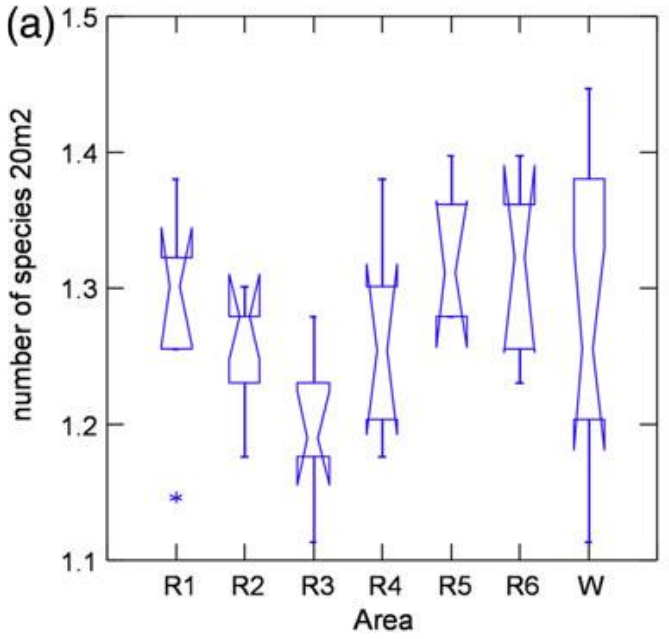


Exclusion effect

No detectible change in benthic species richness after 5 years of fishing exclusion



Bergman e.a. JMS 2015



- Slight increase in species diversity close to turbines (review paper several wind farms)

Coolen e.a. J. Env. Man. 2022

Legal framework

- Scale of impact energy infrastructure – total often more than the sum of the constituents.
- Current evaluation basis: N2000, i.e species with conservation targets
- No inclusion yet of lower trophic levels – currently first discussion
- Impacts are cross-border!
- Challenges are
  - Scientific
  - Governance / policy
  - Legal
- NL target 2030: 21 GW Offshore wind!
- Adaptive management required

Thank you for your attention

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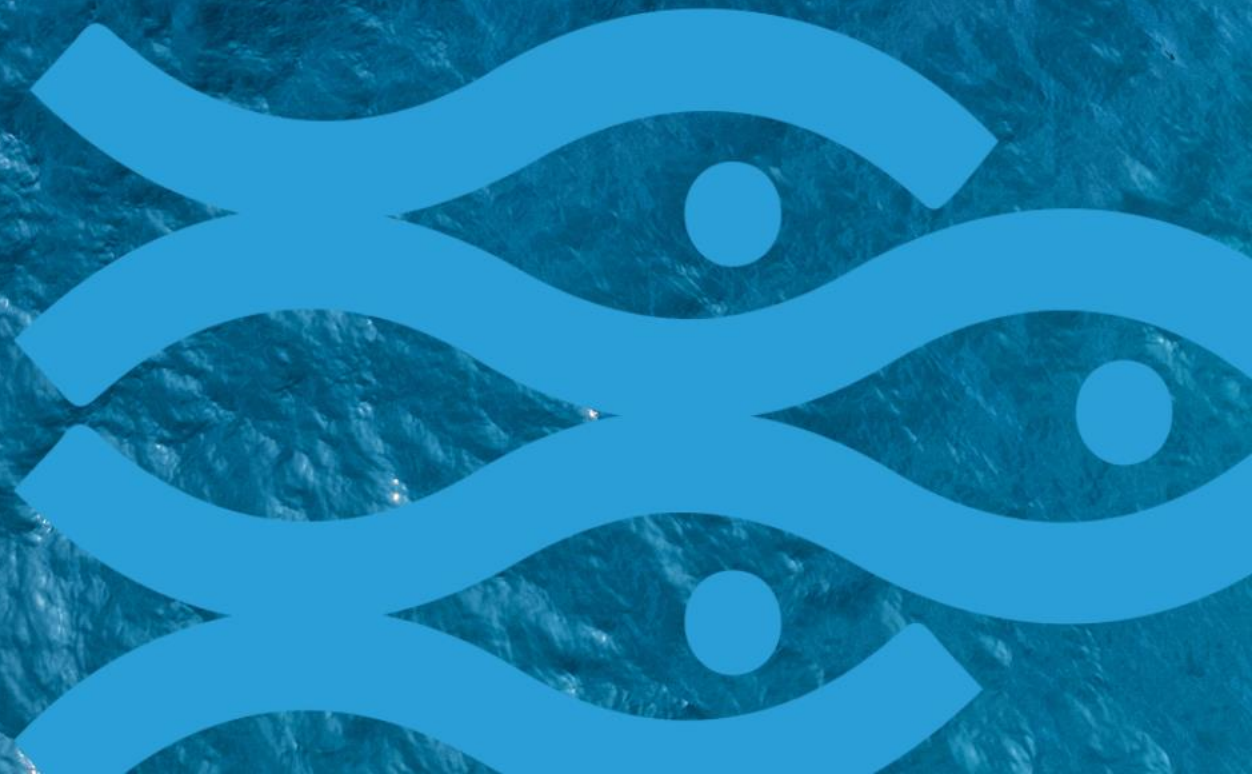
Marine Protected Areas bill - Ireland

Presentation by Richard Cronin – Department of Housing, Local Government and Heritage

Coffee break

10:45 – 11:00



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Part II
Control Regulation

Control Regulation

Update Inter-AC Meeting 6 February (Brussels)

- Presentation by the Commission – General overview
- Categorisation major changes between old and new regulation:
    - Digitalisation – all reporting is digitised (no more paper).
    - New control tools/data
    - External fleet
    - Sanctions – harmonised and streamlined
    - Derogations
    - Traceability

Control Regulation

Issues of concern highlighted by PelAC – correlation table

Issues highlighted as 'serious concern'

- Articles 14 (3), (4), (5) on margin of tolerance & listing of ports, guidance on estimation of catches onboard
- Articles 17 (1) advance reporting of logbook volumes
- Article 38 (1) capacity limits

Issues highlighted as 'potentially problematic'

- Articles 13 (1) & (2) on obligations for REM/CCTV and data access
- Articles 14 (4) and (6) conditions for landing/weighing of catches
- Article 60 (5) weighing requirements of fishery products & control

Consolidated correlation table with all received comments circulated.

Control Regulation

Issues identified PelAC – Summary

- Time scale for implementation of changes
- Development Implementing and Delegated Acts:
    - Clarity on timelines
    - Involvement ACs
- Margin of tolerance and listing conditions for ports
- Digitisation of logbook requirements – timescale system changes
- REM requirements:
    - Definition ‘high risk’ for non-compliance LO
    - Processing of data/integrity fishermen
    - Compatibility REM software vessels inside and outside EU
- Weighing requirements – concern broad definition ‘weighing operator’

Control Regulation

Issues of concern highlighted by NWWAC – correlation table

Issues highlighted as ‘serious concern’

- Article 13 (1) & (2) obligations for REM/CCTV and data access
- Article 14 (2) completion of the fishing logbook
- Article 15 (1) electronic submission of the fishing logbook
- Article 17 (1) advance reporting of logbook volumes
- Article 39a (1) continuous monitoring of engine power

Issues highlighted as ‘potentially problematic’

- Article 9 (3) VMS for small-scale vessels
- Article 15b (1) delegated and implementing acts concerning fishing logbook requirements
- Article 24 (1) electronic transmission of landing declaration data
- Article 44 (1) & (4) separate stowage of demersal catches subject to multiannual plans
- Article 55 (1) recreational fisheries

Control Regulation

Issues identified NWWAC – Summary

- Time scale for implementation of changes
- Development Implementing and Delegated Acts:
    - Clarity on timelines
    - Involvement of ACs
- REM:
    - Definition of ‘high risk’ vessels
    - Technical specificities & equipment maintenance – costs?
    - Use of data
    - Control for vessels outside the scope of obligatory CCTV
- VMS for small-scale vessels – costs and alternatives
- Completion and submission of electronic logbook
- Monitoring of engine power – clarification on costs and technical specificities

Control Regulation

Identification of common issues

Possible basis joint-advice:

- Request COM clear timelines for development of implementing and delegated acts and procedures for the involvement of ACs
    - Underline need for involvement of ACs in defining ‘high risk’ vessels for introduction of REM requirements
    - Involve ACs in the development of listing conditions for ports for higher margin of tolerance
    - Implementation system changes for logbook digitisation

- Other…?

Control Regulation – Next steps

Roadmap for joint submission

Listing of agreed action items

Any other business

Thank you!

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Conseil Consultatif pour les Eaux Occidentales Septentrionales
North Western Waters Advisory Council
Consejo Consultivo para las Aguas Noroccidentales