Sharing data and knowledge in the Greater North Sea Basin Initiative

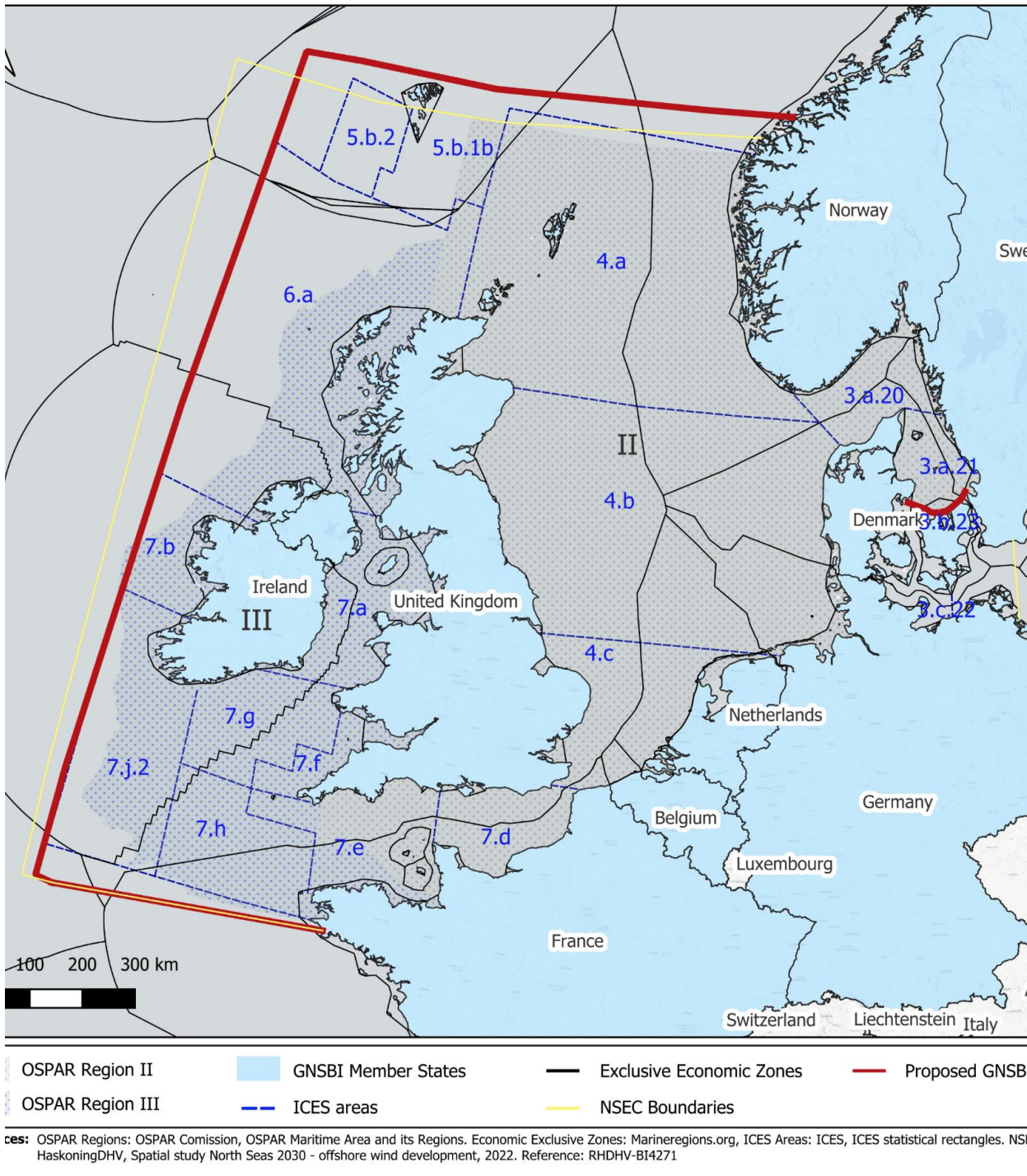
Sharon Tatman - Deltares

Greater North Sea Basin Initiative

NESBp Northern European Sea Basins project

Deltares

02/04/2026



What is the Greater North Sea Basin Initiative (GNSBI)?

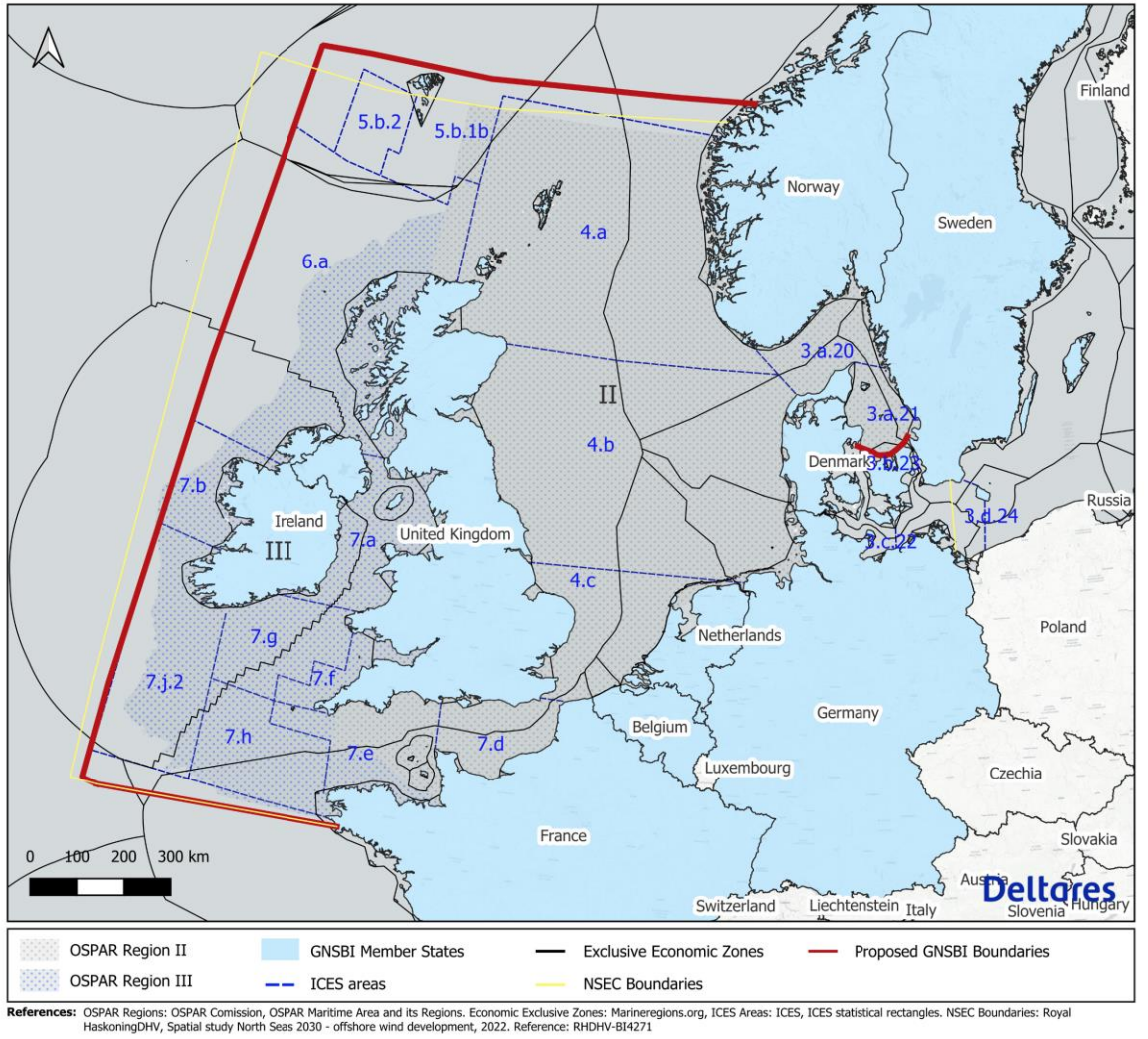
Greater North Sea Basin Initiative

What is the GNSBI?

- An initiative of 9 Greater North Sea countries and the European Commission;
- Participating countries: Belgium, Denmark, France, Germany, Ireland, Netherlands, Norway, Sweden, United Kingdom
- Started in 2022

Current GNSBI Governance

- Antwerp Declaration 2024
  - Ministers' Conference
- Non-binding and voluntary
- Decisions established within national legislations and international treaties



References: OSPAR Regions: OSPAR Comission, OSPAR Maritime Area and its Regions. Economic Exclusive Zones: Marineregions.org, ICES Areas: ICES, ICES statistical rectangles. NSEC Boundaries: Royal HaskoningDHV, Spatial study North Seas 2030 - offshore wind development, 2022. Reference: RHDHV-BI4271

Five integrated Working Tracks*

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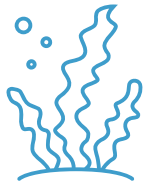


Nature restoration and conservation (NAT)

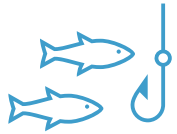
Set-up a programme for cooperation regarding conservation, enhancement and restoration of nature.

Cumulative impacts (CIA)

Find a common approach on cumulative impact assessments based on existing work to identify ecological tensions.

Multiple use of space (MUL)

Set-up criteria and sharing best practices on co-use.



Long-term perspective of fisheries (LTPF)

Create insight in key fisheries areas and socioeconomic/food impacts of spatial developments at North Sea scale.

Knowledge sharing (KNOW)

Coordinate the exchange of best practices, (scientific) information, data, plans and assessments.

→ Co-lead Deltares (Sharon Tatman) & Ministry IenW (Nick Boxem)

*The four Tracks (NAT/MUL/CIA/LTPF) are output-driven and (strongly) interrelated, whereas the Knowledge Track can support parts of the mapping, data and information element.

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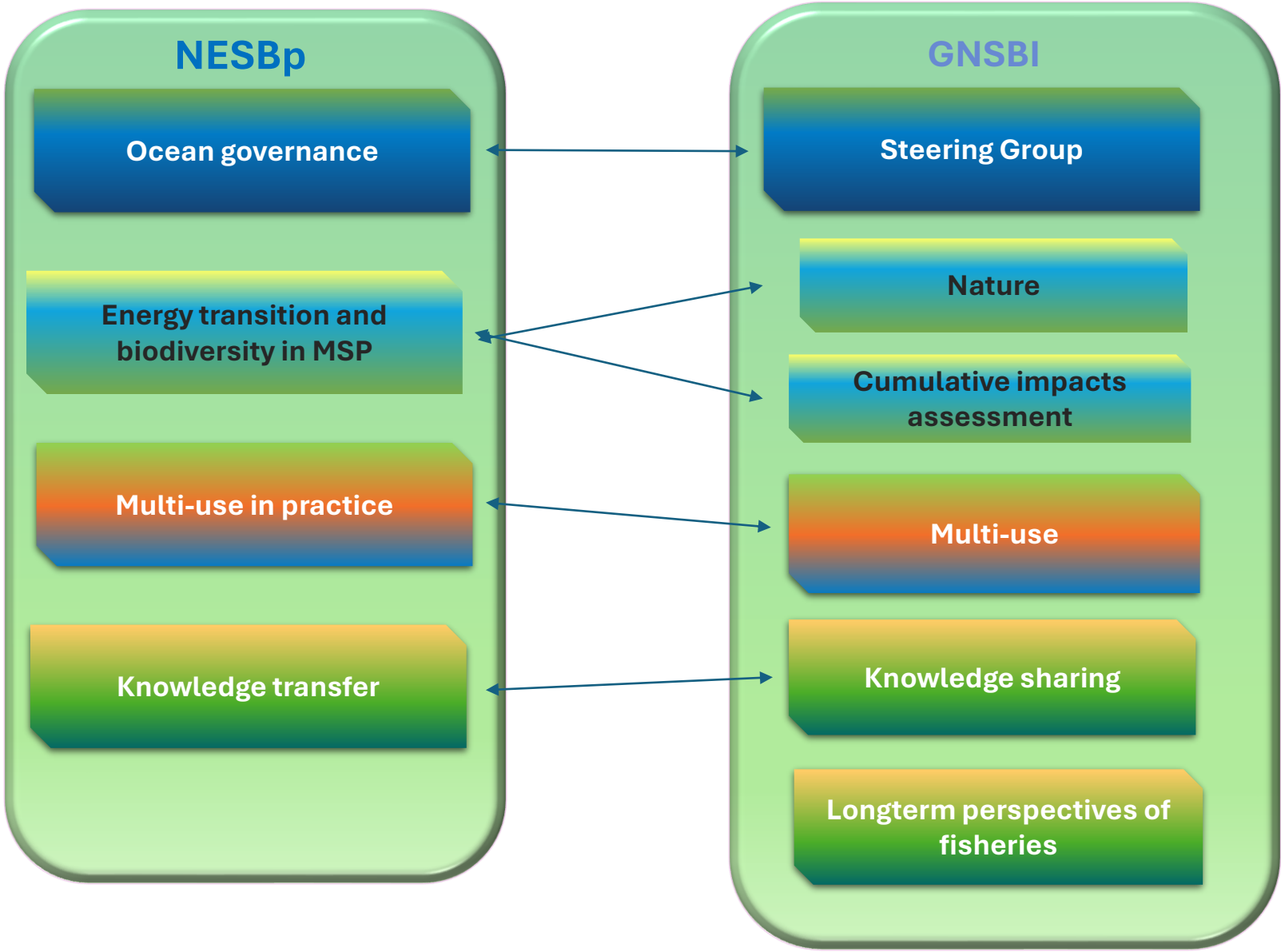

Why a Knowledge Sharing Track?

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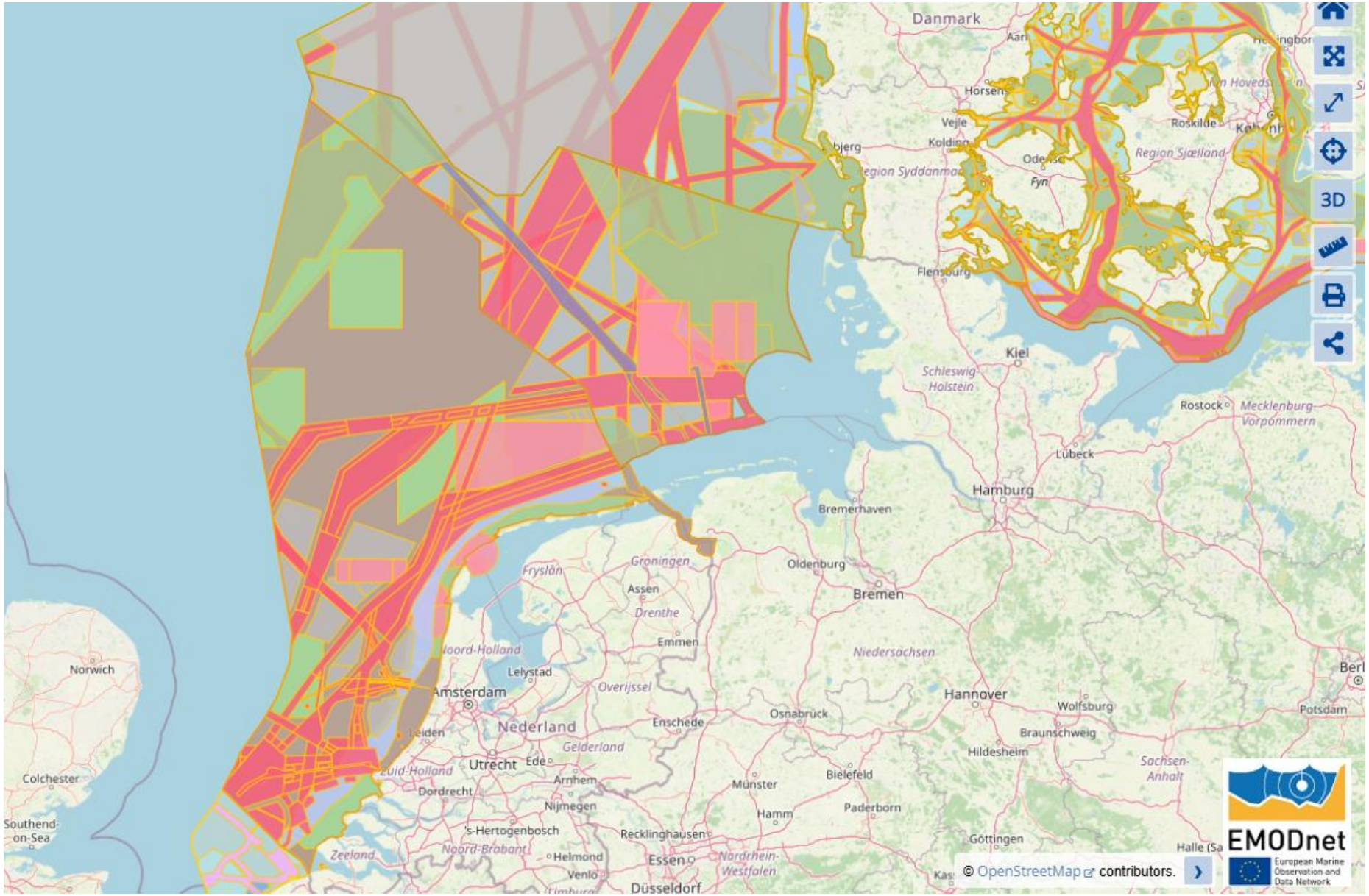
Objective GNSBI

→ To enhance informed national decision making and cross-border collaboration (Antwerp declaration)

Objective Knowledge Sharing Track

→ To align data- and knowledge sharing and associated workflow procedures between GNSBI countries, with the aim **to enhance informed national decision making and cross-border, cross-sectoral collaboration and dialogue among countries** bordering the Greater North Sea Basin, in Early MSP Dialogue phase of maritime spatial planning and other effective management processes

The challenge for MSP practitioners



https://emodnet.ec.europa.eu/geoviewer/

Voettekst van de presentatie

Early MSP Dialogue and the GNSBI

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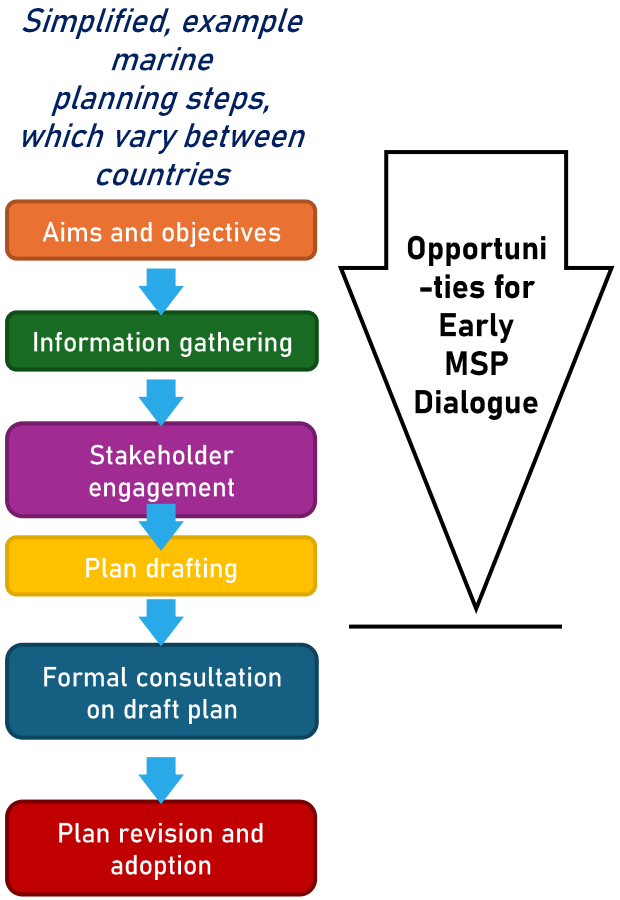
- Antwerp Ministerial Declaration: '*GNSBI acts as a forum for facilitating early dialogue, and engaging early with all parties*',
- to enhance regional cross-boundary cooperation to better align maritime spatial planning,
- while respecting decisions established within national legislations and international treaties,
- in compliance with obligation from the EU Marine Spatial Planning Directive that spatial plans should be consulted and coordinated between member states as well as with third countries



- GNSBI provides a safe space for early MSP dialogue and opportunity to raise sensitive or emerging issues, supporting more informed national planning through regional awareness and cooperation.

What are main MSP data sharing challenges we face between countries?

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Different countries have conducted their exercises at national level

Different methods

Different priorities

Different terminology

Different sets of spatial features

Different scales and complexities

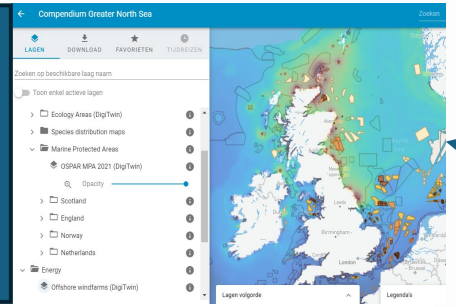
Different data coverage

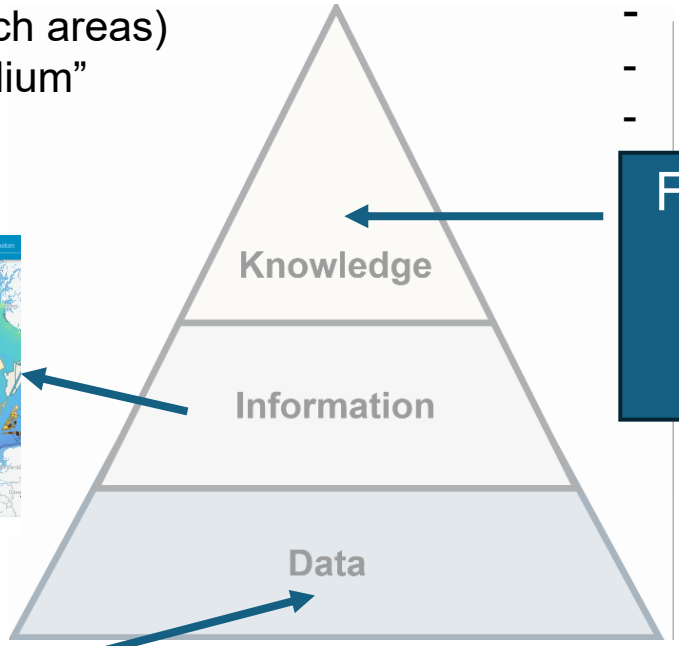
GNSBI Knowledge Sharing approach

Step 2: Provide maps tailored to end-users needs

- maps e.g. from GNSBI countries and Working tracks
- additional maps (e.g. future OWF search areas)
- proof-of-concept **viewer** “the Compendium”
- Improve workflows from countries
- Etc…

Webviewer (maps) “*Basemaps*”

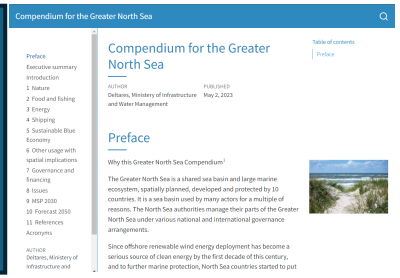




Step 3: Narratives (storytelling)

- Knowledge transfer
- Transboundary dialogue
- MSP practitioners

Figures, maps, tables, literature, tools/portals



Data & information layers

Step 1. Data catalogue

Mainly public sources

- European (e.g. EMODnet)
- Regional (e.g. OSPAR, ICES)
- Sectoral (e.g. NSEC SG2)
- National
  - GNSBI countries (MSP input and output)

3 examples where common language plays role (and how we deal with it)

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- NSEC Timeline database layers
- Products developed in GNSBI → tension mapping
- Knowledge Sharing platform “Compendium”

NSEC Timelines

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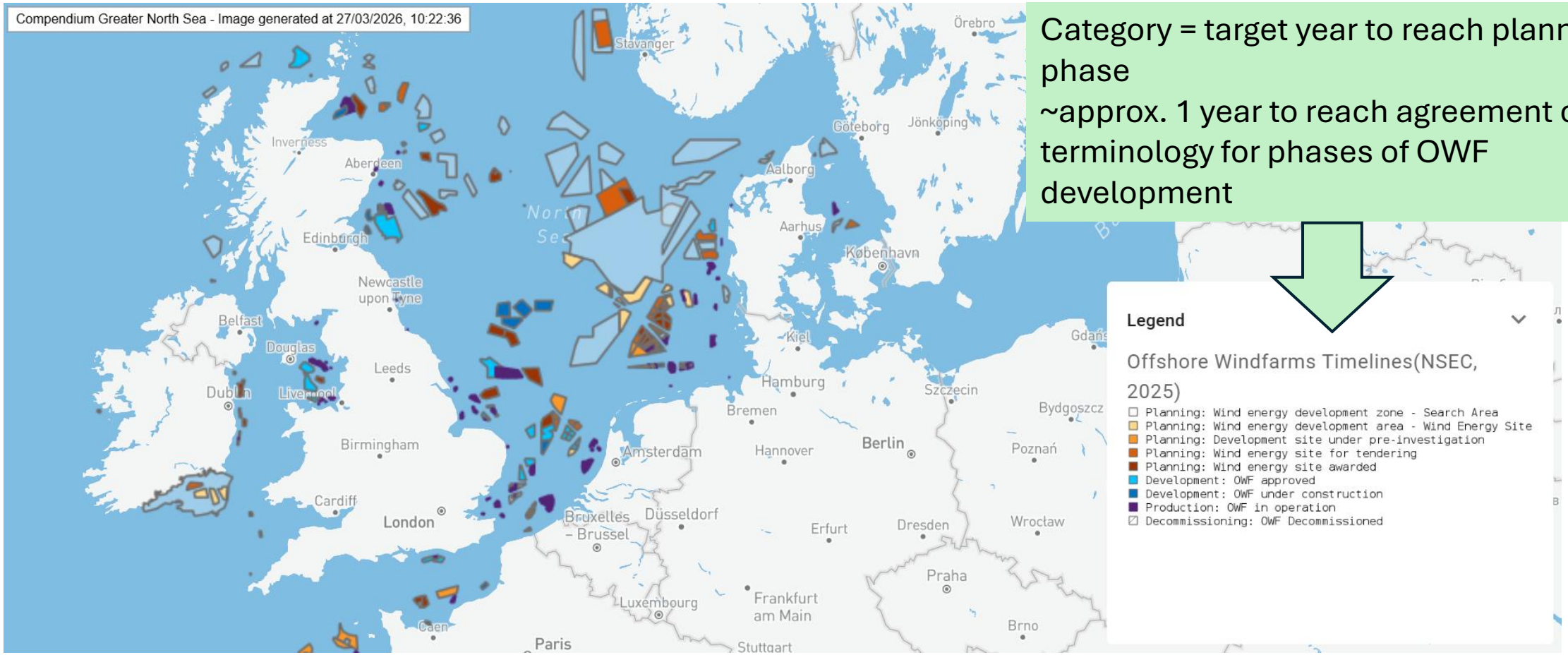

Category = target year to reach planning phase
~approx. 1 year to reach agreement on terminology for phases of OWF development

GNSBI tension mapping

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Para-meter selection

Offshore Windfarms (OWF) - EMODnet
- Production
- Approved
- Construction
- Planned

Offshore Windfarm Areas 2030 - NSEC
- Licensed wind farm
- Other wind study area

Annual Mean Harbour Porpoise Density
- 1,032185 ind. per km² annual avg
- 0,000005 ind. per km² annual avg

Important Bird and Biodiversity Area
- Important Bird and Biodiversity Area

Windfarm Sensitivity Index - Seabirds
- 0,69 - 1,02 - low concern
- 1,02 - 1,39 - concern
- 1,39 - 6,29 - high concern

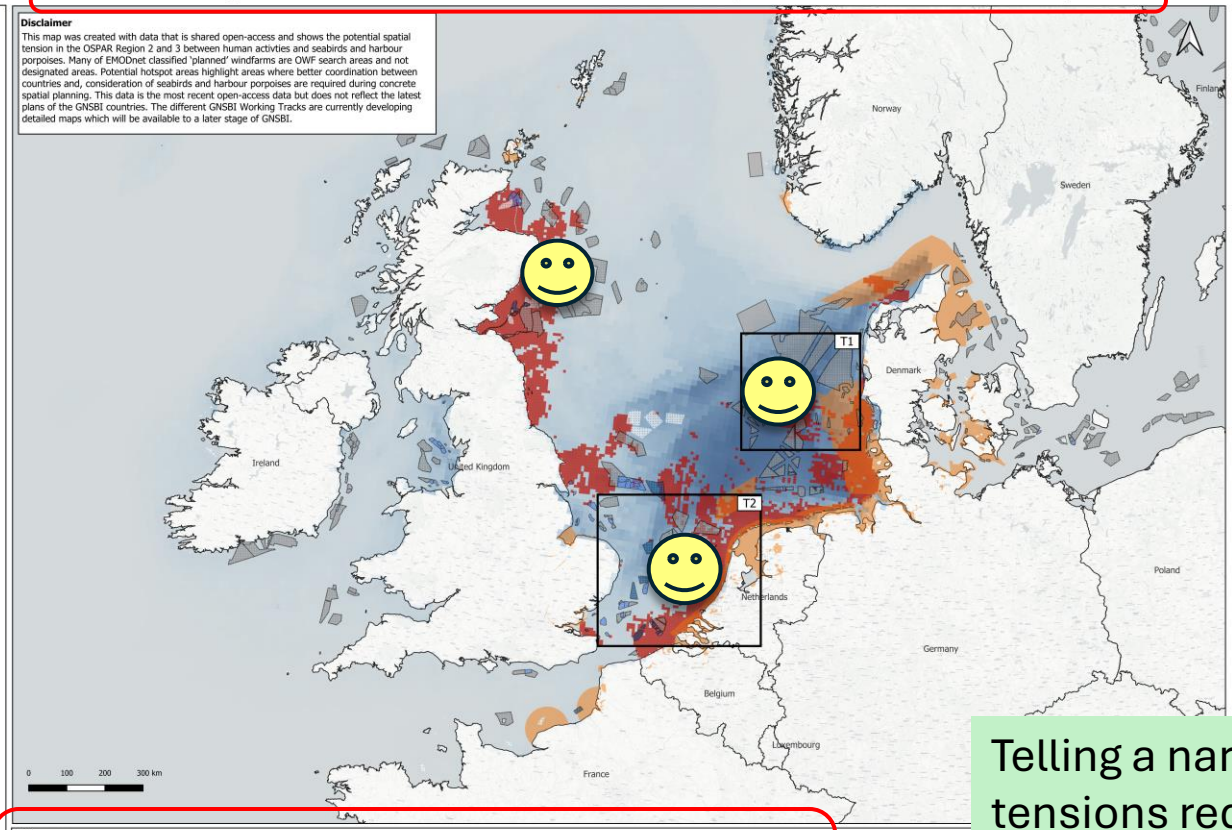
All Vessel Density - EMODnet
- 0 hours per km² per month
- 8 hours per km² per month

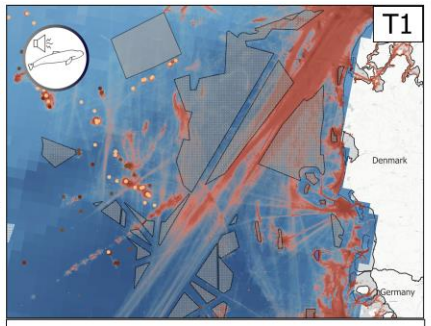
Offshore Installations - EMODnet
- Condensate
- Crude Oil
- Natural Gas
- Other

Potential Risks Harbour Porpoises - Anthropogenic Noise
- Areas with potential risks for harbour porpoises[1]

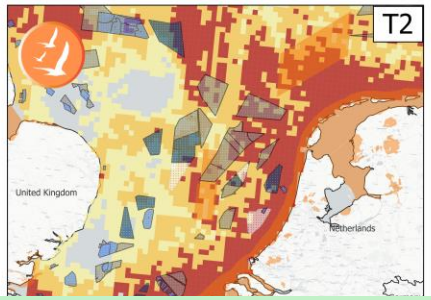
Potential Risks Seabirds - OWF
- Areas with potential risks for seabirds[1]

Potential Hotspots of Tension between Human Activities, Seabirds and Harbour Porpoises





Potential Conflicts between Anthropogenic Noise Pollution - Harbour Porpoise



Data source / data collection

Telling a narrative of possible future tensions required multilateral agreement on data selection, visualisation and language (title of maps, presentation)

GNSBI Compendium – mock-up platform for data & knowledge sharing

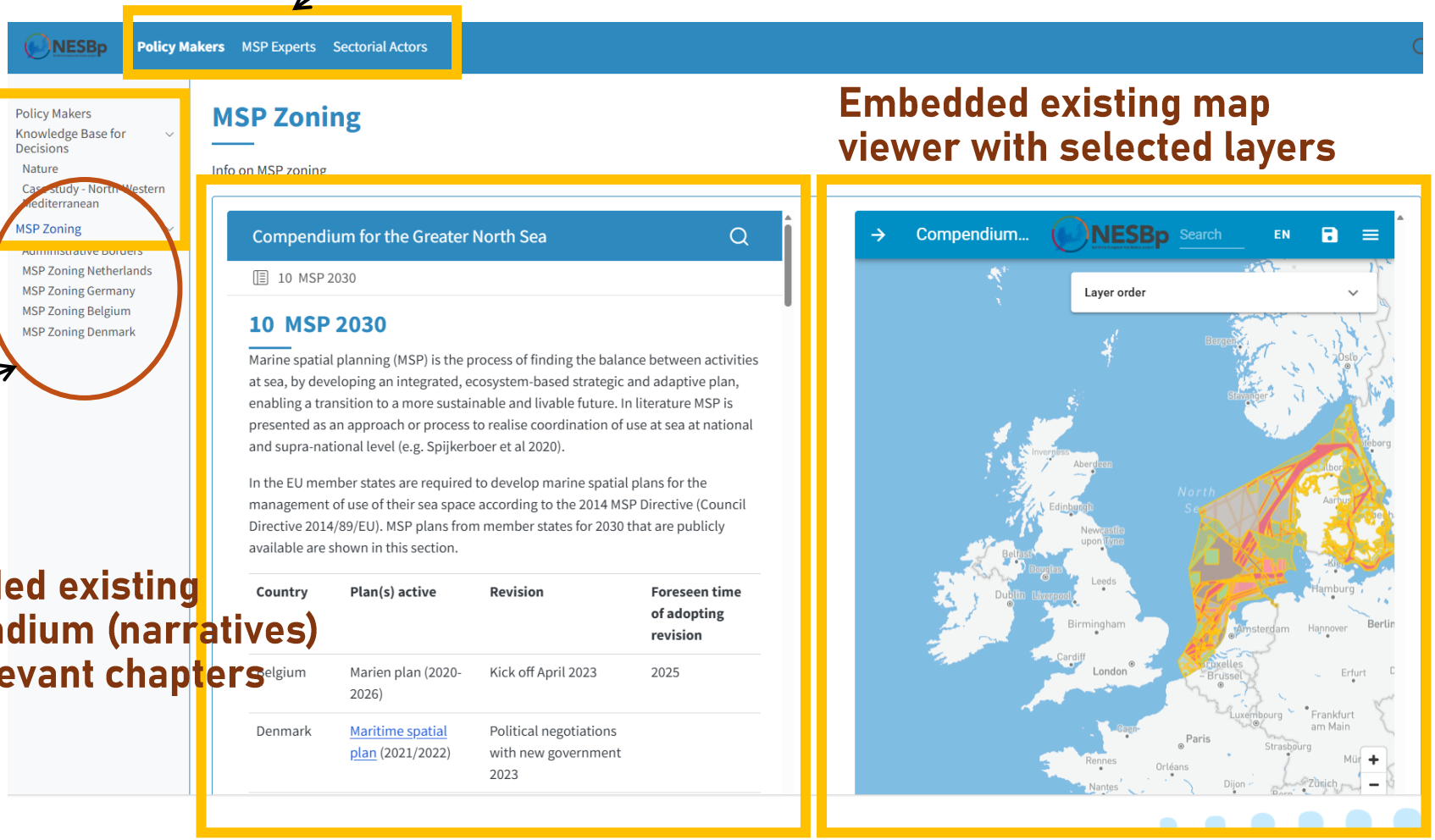
- Demonstrator
- First viable version
- Some example content

Entries for different data-info-knowledge types

Content catalogue depends on:

- User type
- DIK type

Entries for different users



Embedded existing Compendium (narratives) with relevant chapters

Embedded existing map viewer with selected layers

Narrative viewer

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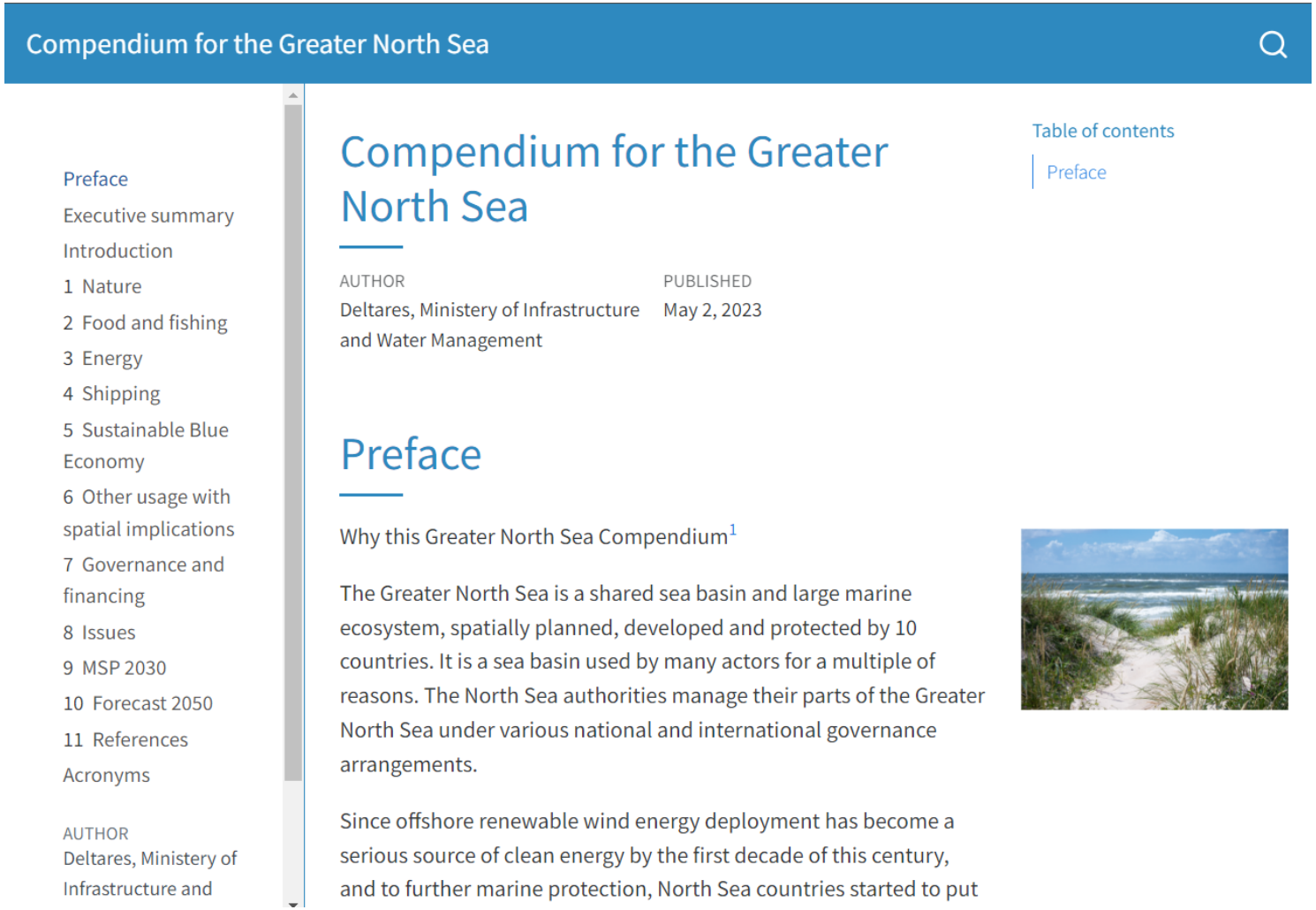

Narrative content

- Content managed by GNSBI
- Current version is proof of concept
- Version controlled multi-user input (Github) – TBD

Web viewer

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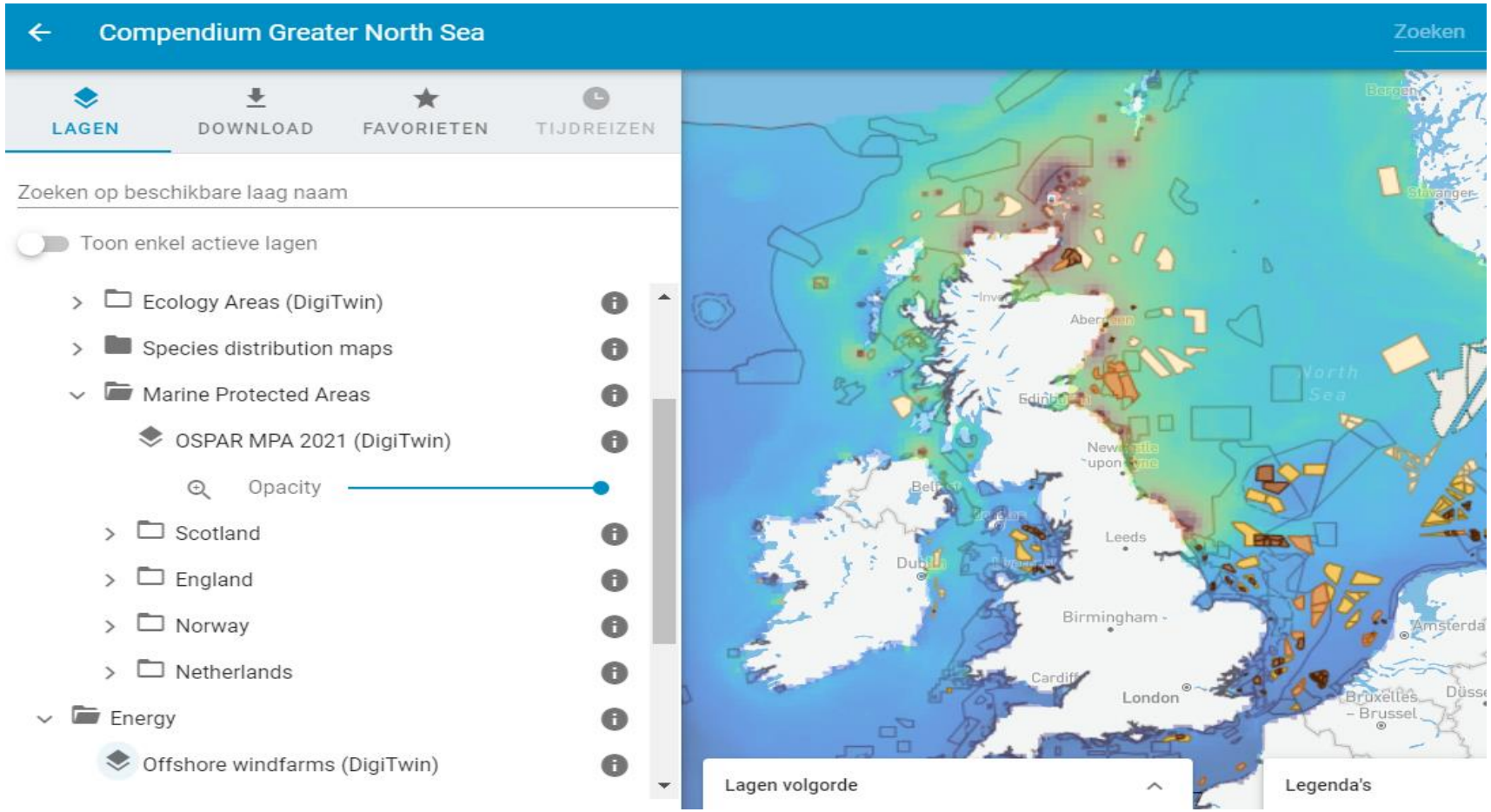
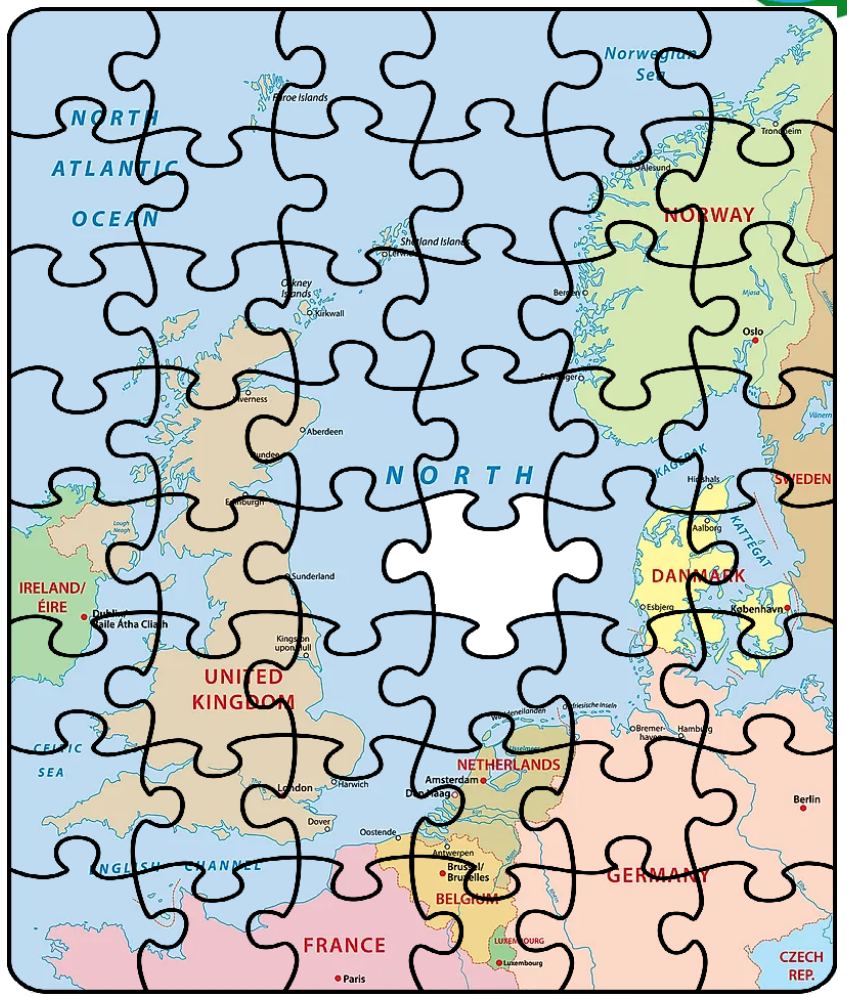


Map layers (Web services)

- Content (layers) managed by GNSBI
- Data managed at the source
- No harmonization is done
- Host data locally only if necessary

Take home message

- Informed national decision making and cross-border collaboration for GNSBI requires evidence base through sharing of evidence-based data, information & knowledge
- Speaking a common language essential in all aspects of data, information, knowledge sharing
- There is huge amount of data and national databases and tools for MSP, but
  - Data across borders not “perfectly comparable” (NSEC Timeline example) due to choices in planning, terminology
  - Impacts harmonisation & standardisation of data
- Knowledge Sharing Track vision
  - Demonstrate benefits of data sharing
  - Remove challenges
  - Platform (Compendium) tailored to end-users, including language and ease-of-use



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Questions?

Suggestions? Opportunities?
Ideas?