



**eMSP
NBSR**

Emerging Ecosystem-based
Maritime Spatial Planning
Topics in the North and Baltic
Sea Regions



**Co-funded by
the European Union**

Draft recommendations on on strengthenig EBA in MSP

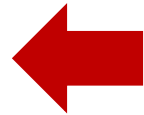
14 June 2023



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Procedures

- Goals setting and revision
- Defining the plan's content
- Evaluation and impact assessment
- Participation and interaction



Key EBA themes

- a. Inclusion of nature
- b. Social and economic consideration
- c. Comprehensiveness and coherence
- b. Ocean governance
- e. Adaptive management

Goals setting and revision



State of the marine environment

EU MSFD

- MSP intended to deliver and maintain Good Environmental Status (GES) of marine ecosystem.
- Planning goals should relate to MSFD objectives.
- Development of spatially related GES objectives that can be supported by MSP.

International policy agreements.

- Regional Sea Conventions coordinate the effort of Contracting Parties to protect the marine environment, identifying environmental goals for respective basins tailored for specific geographic and socio-economic conditions.
- In the Baltic Sea region regional GES objectives are set under regionally harmonized policies - the Baltic Sea Action Plan 2030 and related documents.
- Strategy of the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic 2030 largely identifies environmental goals for the North Sea region.

Biodiversity

- Planning goals strive to deliver nature conservation targets set under the EU GD Biodiversity Strategy which requires 30% of the EU marine area to be designated for nature conservation purposes.
- Planning goals consider marine areas for the implementation of other effective spatial conservation measures (OECMs) aimed to protect species identified under EU Birds and Habitats Directives.
- The goals are tailored for individual sea basins accounting for specificity of their habitats and species.

Restoration

Assuming that 81% of European habitats are in poor status, planning goals should deliver to the target set by recently adopted proposal for Nature Restoration law and foresee that 20% of sea area is designated for restoration measures.

Ecosystem capacity limits The definition of ecosystem-based approach implies conservation and sustainable use of marine resources in an equitable way.

- Human community is considered as an intrinsic part of the ecosystem, inevitably influencing its state and functioning.
- The basic boundary conditions ensuring the societal well-being today and in the future are to be set with respect to the social and economic goals.
- The basic boundary conditions consider the value of provisioning, cultural, regulating and supporting ecosystem services, but also allow for the preservation, restoration and enhancement of the intrinsic value of nature.
- The desired quality of the marine environment is defined as **a naturally functioning ecosystem and ecosystem services.**

Land-sea interaction

- Planning goals consider economic policies safeguarding national interests in relation to human activities at sea and those which depend on marine ecosystem services and influence it.
- Important to acknowledge that the marine environment is not only affected by human activities at sea, but also by activities on land.
- Land-sea interaction is an inseparable part of the planning process, and the goal setting process ensures a holistic view of relevant land-sea interactions and connect the marine policies with the ones for inland areas.
- In this context the EU Water Framework Directive contributes to the protection of territorial and marine waters and achieving respective objectives.

Climate change

- Climate change increases the uncertainty of existing knowledge of future effect of climate change on both ecosystem and human activities.
- Planning goals aim to strengthen the resilience to climate change in line with the EU and regional commitments.
- Climate change scenarios are considered at the goal setting stage of the planning process enabling introduction of respective mitigation and adaptation measures at the following stages of planning.

The planning goals are set addressing:

- climate refuge areas,
- coastal protection,
- development of renewable energy and respective infrastructure,
- services related to carbon storage.

Comprehensiveness and coherence

Comprehensive knowledge

- Already at the goal setting stage knowledge generated under various sectorial policies is to be synthesized.
- Comprehensive spatial data showing nature values, marine green infrastructure, ecosystem services are synthesized with knowledge on land-sea interactions land-based pressures provided by the WFD as well as with data on social and economic values.
- Such comprehensive analysis leads to identification of gaps and setting specific goals to improve the knowledge base.

Examples of approaches to synthesize sectorial knowledge:

- A Vision, including sector specific Visions, are formulated at the initial stage of planning to identify and account for sectoral policy goals.
- A Roadmap for marine spatial planning process, accounting for key messages from the Vision(s), serves for consideration of the goals throughout MSP process.

Precaution and adaptiveness

The Precautionary approach Baltic Sea broad-scale MSP principles consider the precautionary principle as a central part of the ecosystem-based approach.

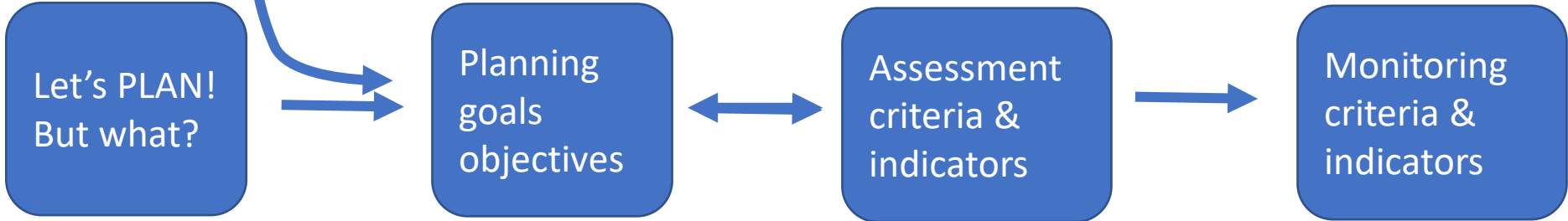
- Importance of the application of this principle already at the goal setting stage is provided by high uncertainty of knowledge on true impact of current human activities
- Climate change aggravates the uncertainty of knowledge on the state of marine environment, ecosystems' functioning, human activities and their impacts.
- In line with the precautionary principle, planning goals are set avoiding any human activities in areas where they can threaten biodiversity or ecosystem services.

Adaptive management

- Adaptive management is inbuilt into the planning architecture at the goal setting stage.
- It implies that at later planning stages their adjustment is to be possible as a result of strategic environmental assessment of planning solutions.
- Adaptive management also involves recurrent evaluation and revision of plans which scope is to be set at the earliest planning stages.
- The role of adaptive management grows in the light of climate change to make the MSP process capable to adapt to changing climate parameters.

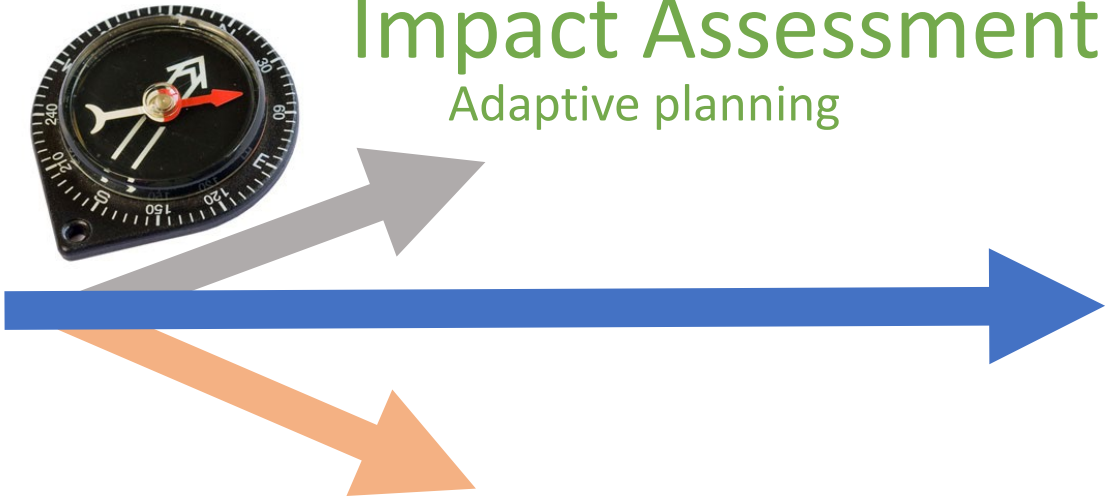


Assessment and evaluation at the goal setting stage



Impact Assessment Adaptive planning

PRESENT



OUR
FUTURE

Building plan's content

The best available knowledge

Knowledge base for EBA in MSP in general covers three major areas:

- State of the ecosystem and its components,
- Distribution of human activities,
- Environmental pressure.



Activities vs Ecosystem

Ecosystem components:

- hydrological and geological data,
- data on distribution of birds, fish, marine mammals, pelagic and bottom habitats,
- maps aggregated nature values.

Ecologically significant marine underwater areas:

- vulnerability and uniqueness of biotopes,
- geological diversity
- areas in natural state
- ecologically or biologically significant marine areas (EBSAs)

A coherent network of marine protected areas (MPAs).

Human activities (each category can be further specified):

shipping,
construction including dredging and depositing of dredged material,
extraction of mineral resources,
defense,
extraction of living species (e.g. fisheries),
aquaculture
recreational activities.

Spatial distribution of environmental pressures:

- input of substances,
- input of energy,
- biological and physical disturbance

Aggregated pressures:

A matrix could be utilized as a basis for mapping human activities and related pressures.

Land-sea interaction:

Environmental pressures originating from land-based activities are to be accounted for and thoroughly mapped.

Distribution of cumulative pressure – a baseline for management of human activities

- Spatial distribution of potential cumulative environmental pressure is computed summarizing individual pressures.
- Each pressure is to be weighted against its average sensitivity score for all ecosystem components.

Caution: Distribution of cumulative pressure might not correspond to the areas with high impact on species and habitats.



Ensuring sustainability of ecosystem services.

Ecosystem services

- Ecosystem services are mapped and assessed when compiling the plan's content.
- Mapping and assessment of ecosystem services (MAES) is preferably based on the Common International Classification of Ecosystem Services (CICES) however, other classification can be considered.
- Social and economic values of the services are to be assessed wherever knowledge and resources are available.
- Potential production areas of ecosystem services can be integrated in the plan as 'significant underwater nature values'.



Ocean governance

One possible definition:

The entirety of formal and informal institutions used by human societies to plan and manage our seas in terms of human uses and interests.

- All authorities responsible for the implementation of sectoral policies are involved in the reviewing of the plan's content.
- They evaluate whether the allocated space is sufficient to meet sectoral targets.
- The sectoral authorities included in the working group maintain a dialogue with sectoral businesses and organizations ensuring that MSP process.
- A working group consisting of representatives of respective public authorities may serve for the purpose.
- In case the working group grows large a steering group consisting of key implementers can be set up to coordinate the reviewing process.
- Key planning decisions are made by the steering group including practical aspects of the implementation of an ecosystem-based approach.
- The working group and steering group thus ensure the coordination and integration of targets, plans and legislation, which the MSP needs to conform with.

Mitigation measures.

- Mitigation measures are considered in the order: preventing/avoiding, reducing, and offsetting the impact of human activities.
- Avoiding impacts is regarded as an ultimate solution - 'zero negative impact'.
- Mitigation measures can be included in the plan's content or proposed at project level.
- Practical measures target the areas with high risk of significant environmental effect.
- It may include the division of the planning area into zones reflecting e.g. the ratio of coastal land and sea surface areas.

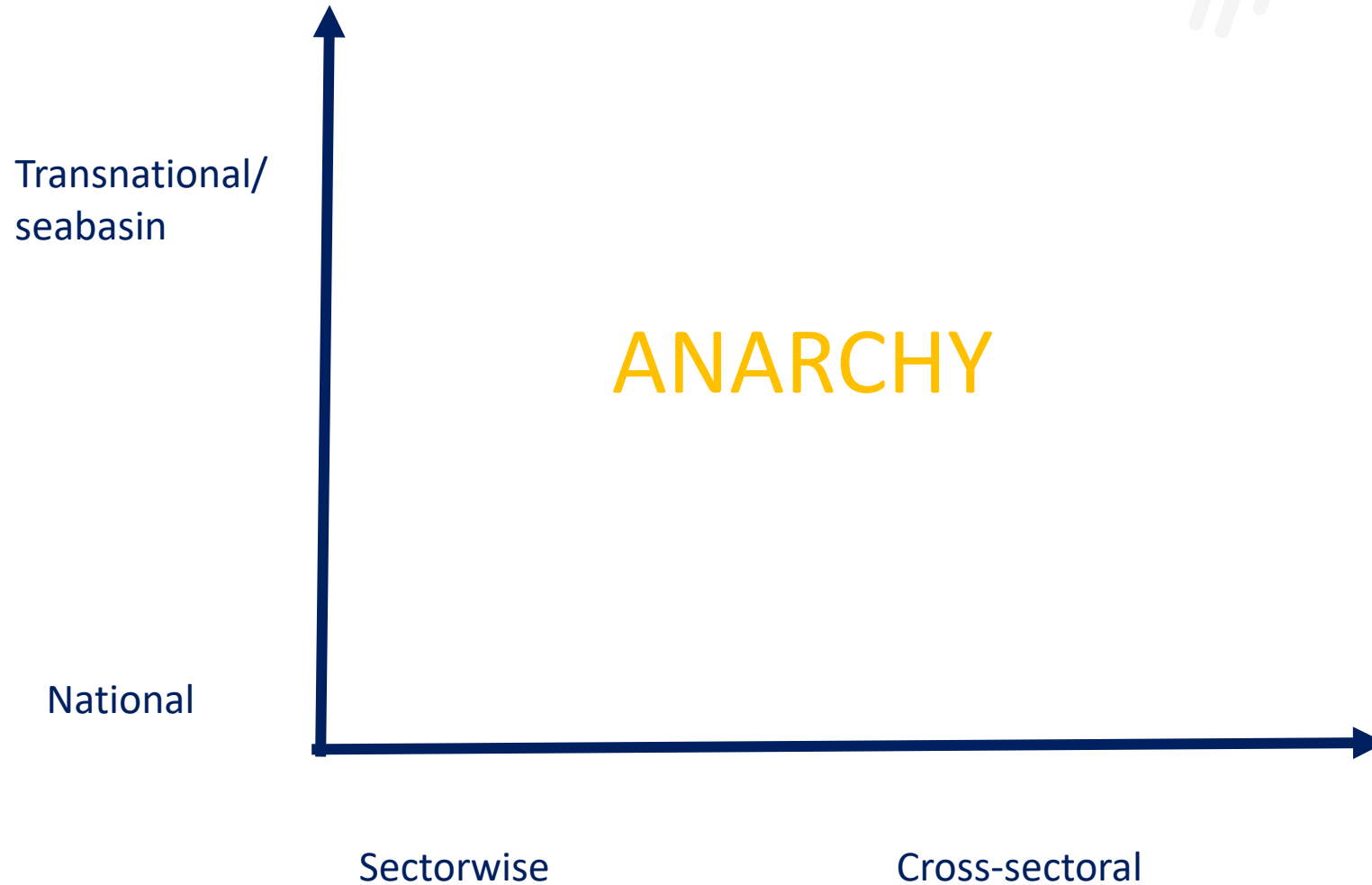
Alternative planning solutions.

- The alternative planning solutions are designed to maintain balance between societal needs and GES of marine waters.
- Reasonable alternatives are developed to find solutions to avoid or reduce negative environmental impacts or disfunction of ecosystem services.
- Alternative planning strives to compare proposed solutions, including current status and "zero" alternative and demonstrate the impact of the plan.

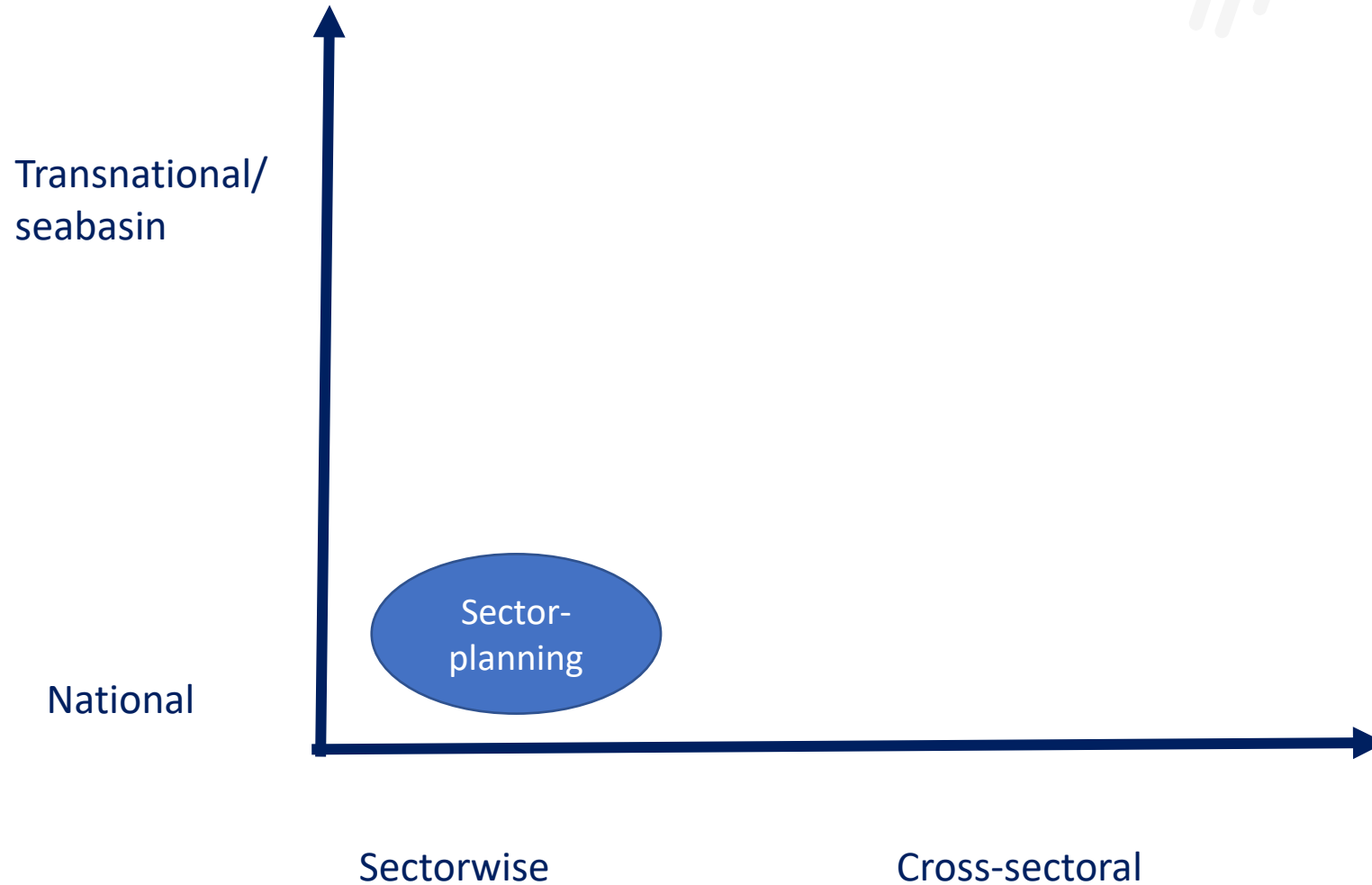
- **Cross-sectorial and transboundary consultations** ensure transparency of the plan's content development process.
- Consultations strive accounting for **sectorial and national interest, acceptance of planning solutions by the public and resolving potential conflicts.**
- **A roadmap for MSP process** which among other issues outlines relevant **stakeholders' groups** and sets a **communication plan.**
- **Sectorial visions** can be developed to outline sectorial goals and identify respective content of the plans.
- National coordination in the form of **cross-sectorial working groups** or coordination committees may provide a platform for stakeholder's dialog.
- Establishing of **online platform** facilitates such cross-sectorial communication.
- **Formal consultation** procedures are essential, including **ESPOO-consultation.**
- **Regional Sea Conventions** might serve as a platform for transboundary dialog in regional scale assuring coherence of the plan's content throughout respective sea regions.
- **Formal cross-border consultation** rounds are to be arranged.
- **Bilateral or trilateral meetings** between neighboring countries addressing specific environmental impacts.

Impact assessment and evaluation

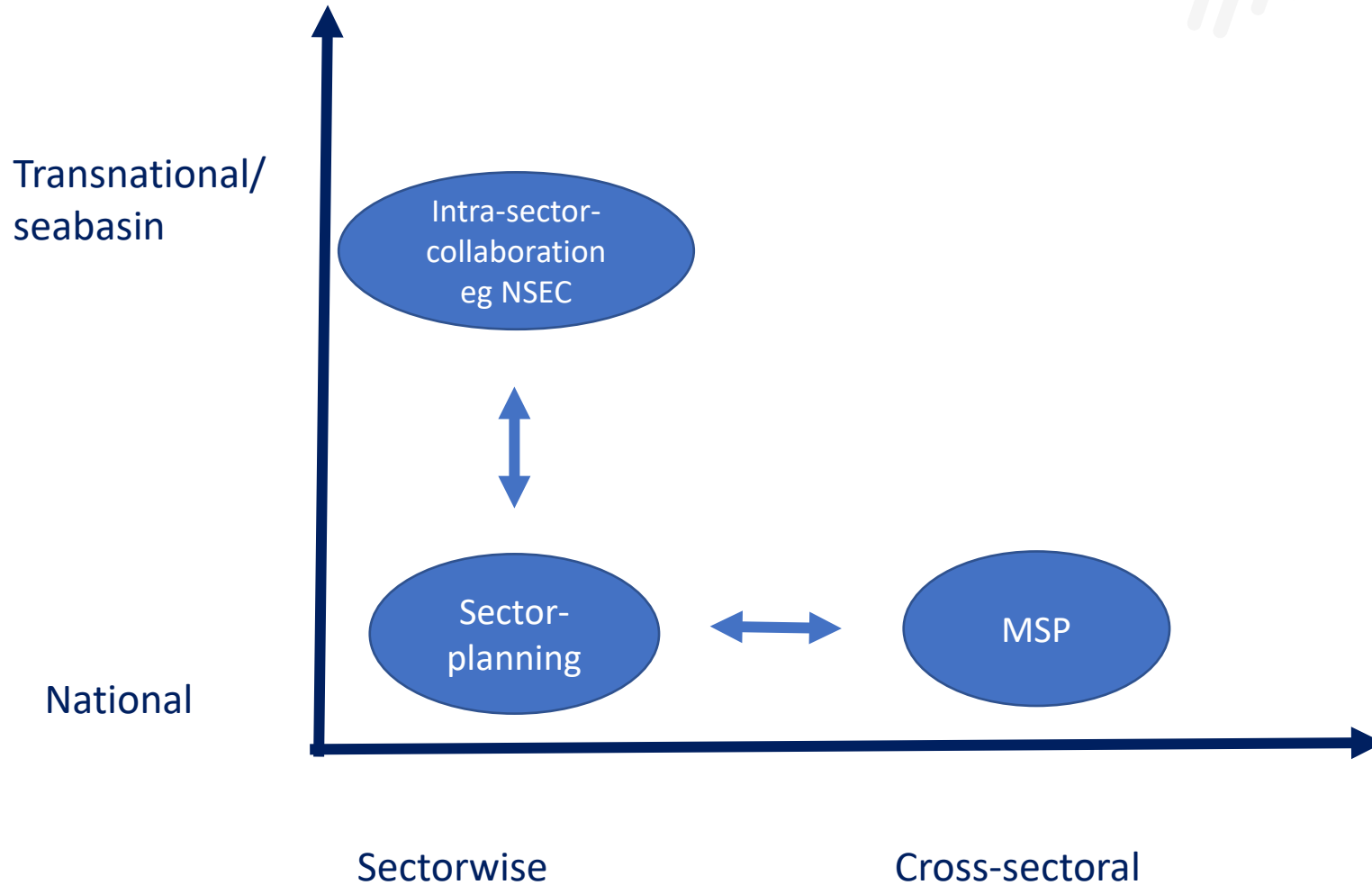
In the beginning there was...



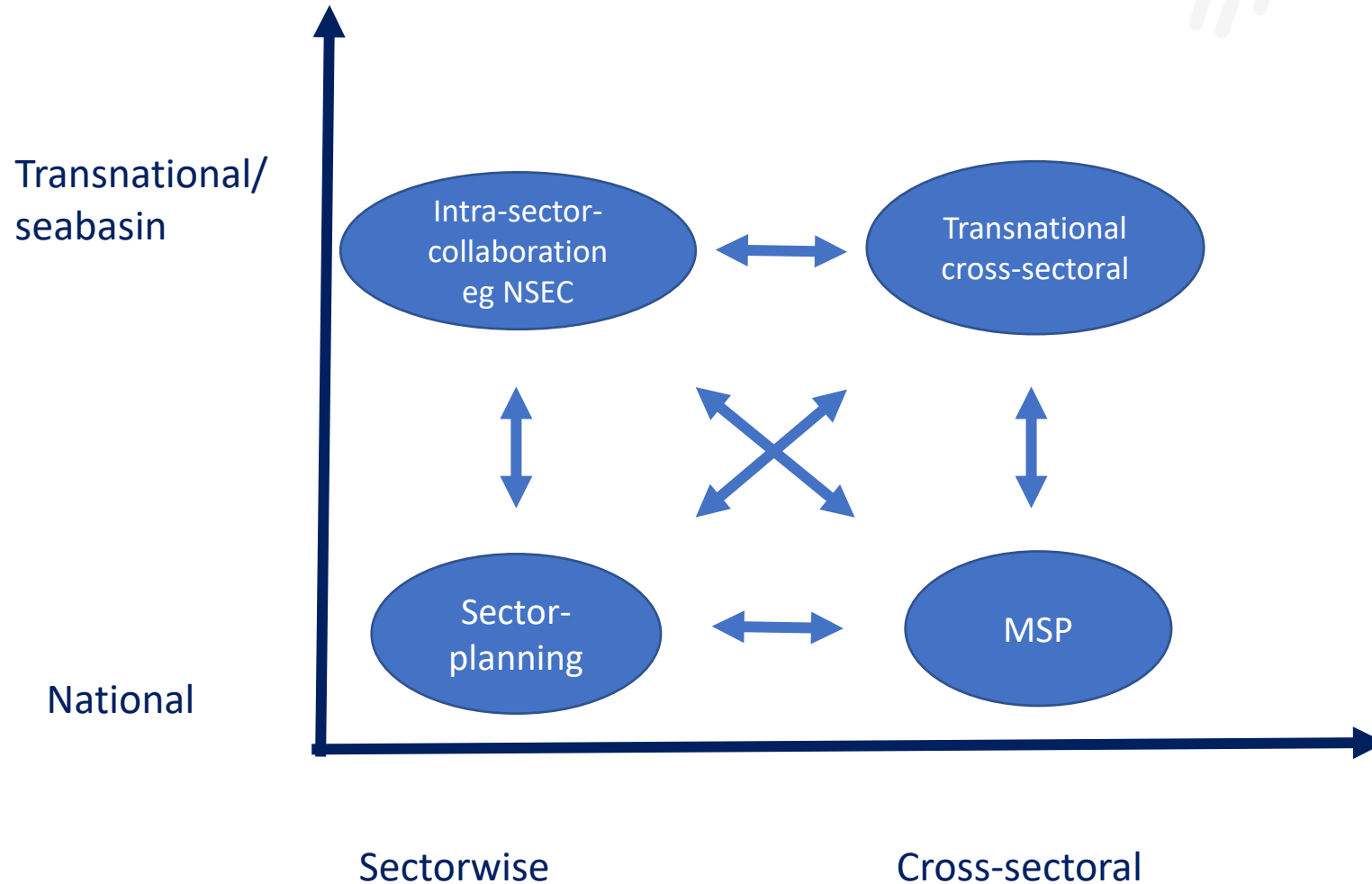
Then came sector planning...



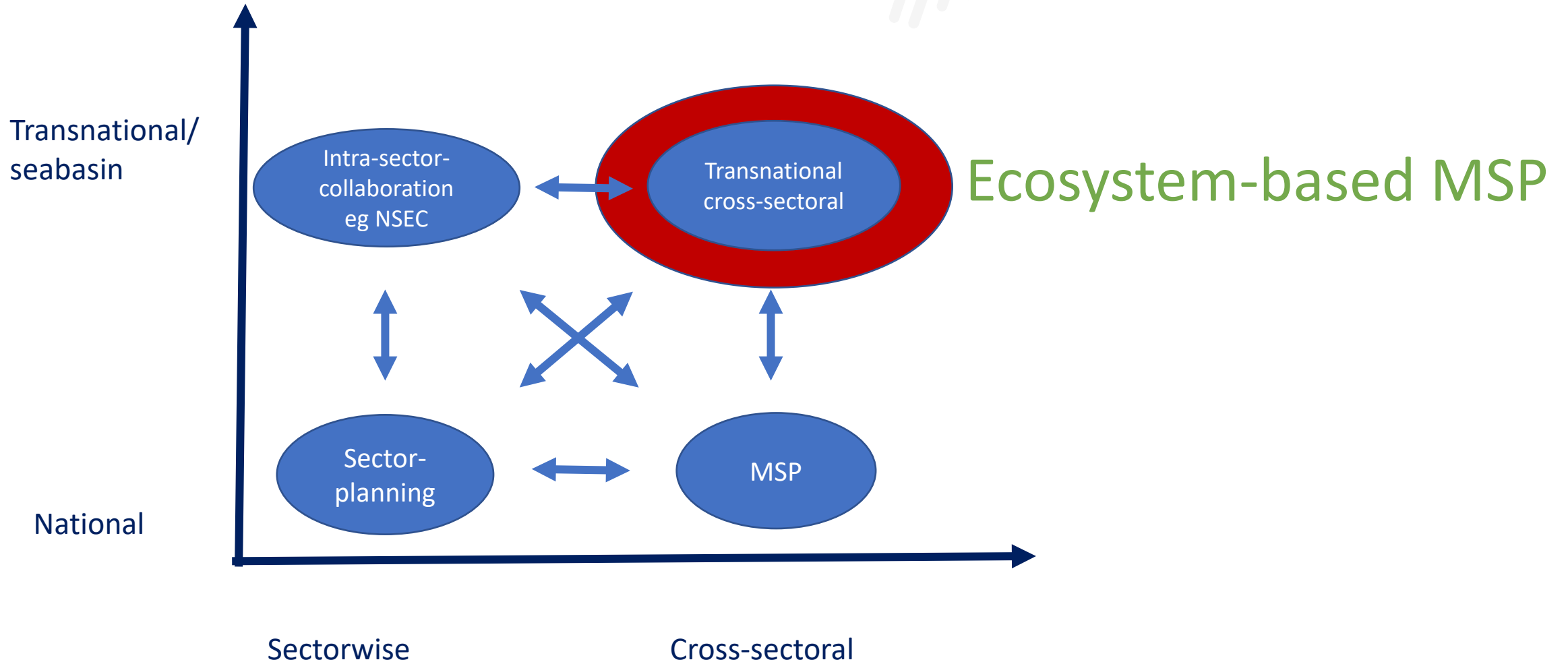
Then came intra-sector collaboration and MSP...



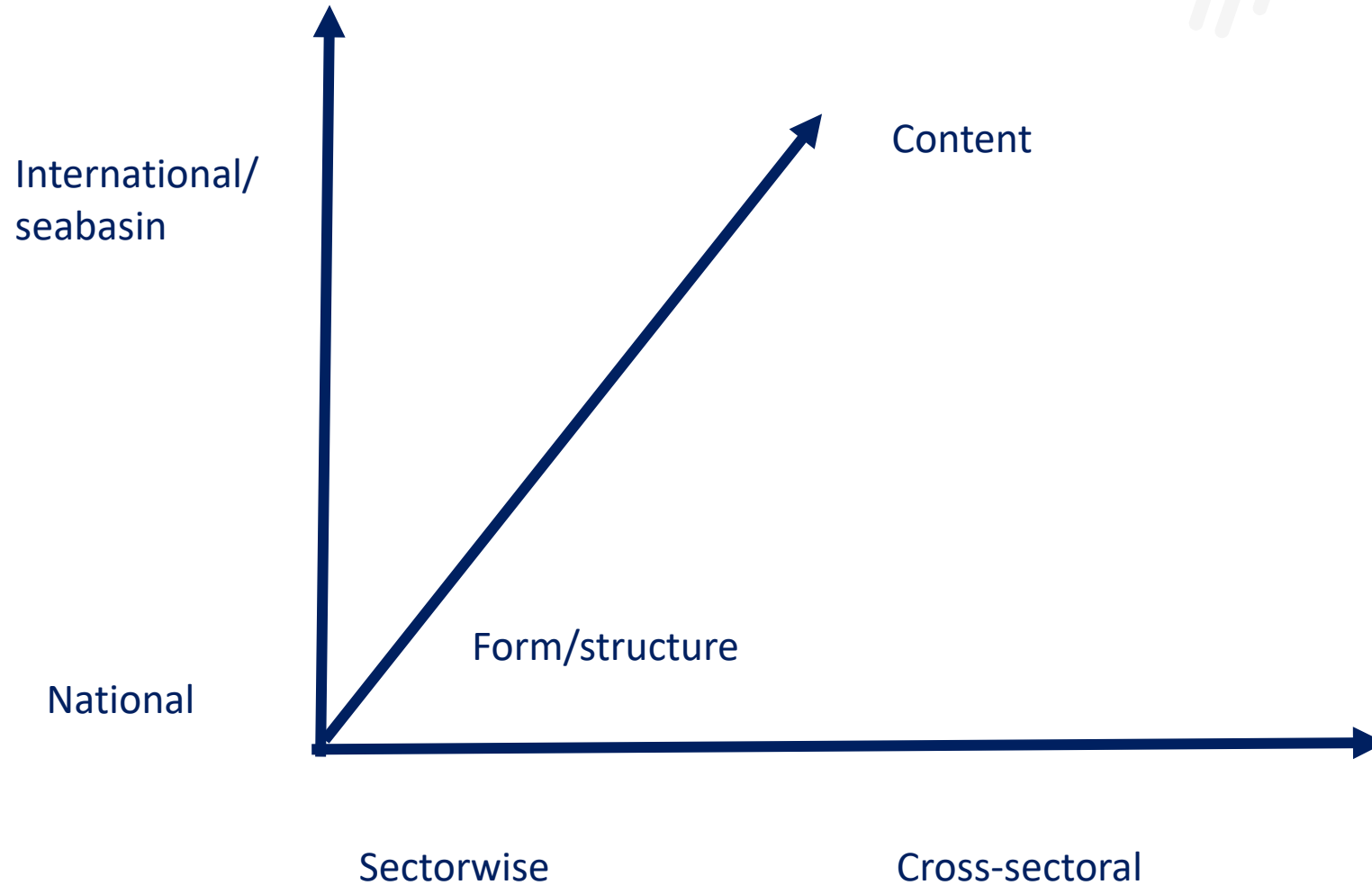
Then came...cross-sectoral transnational collaboration (incl the Greater North Sea Basin Initiative (GNSBI))

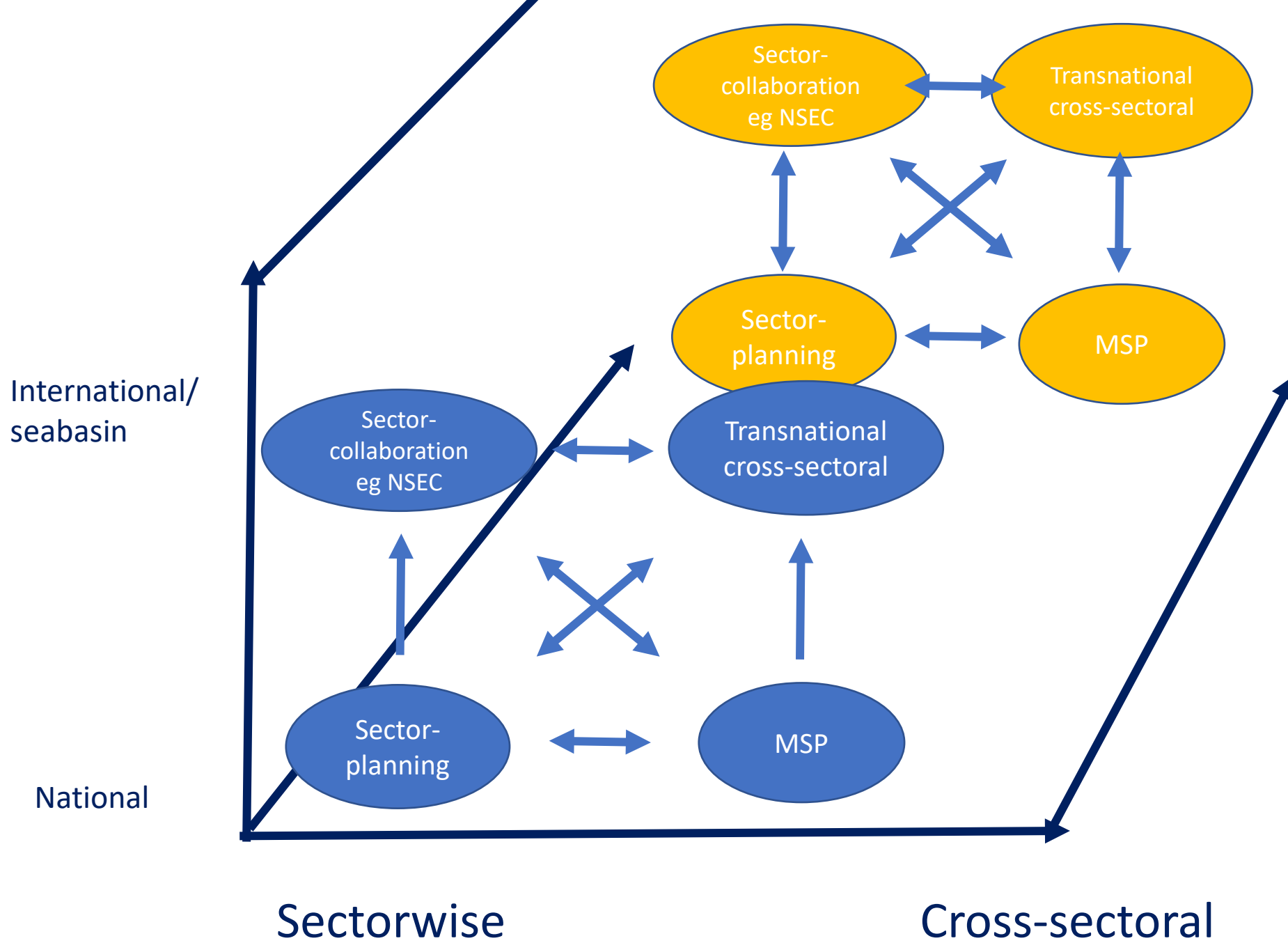


Then came...cross-sectoral transnational collaboration (incl the Greater North Sea Basin Initiative (GNSBI))

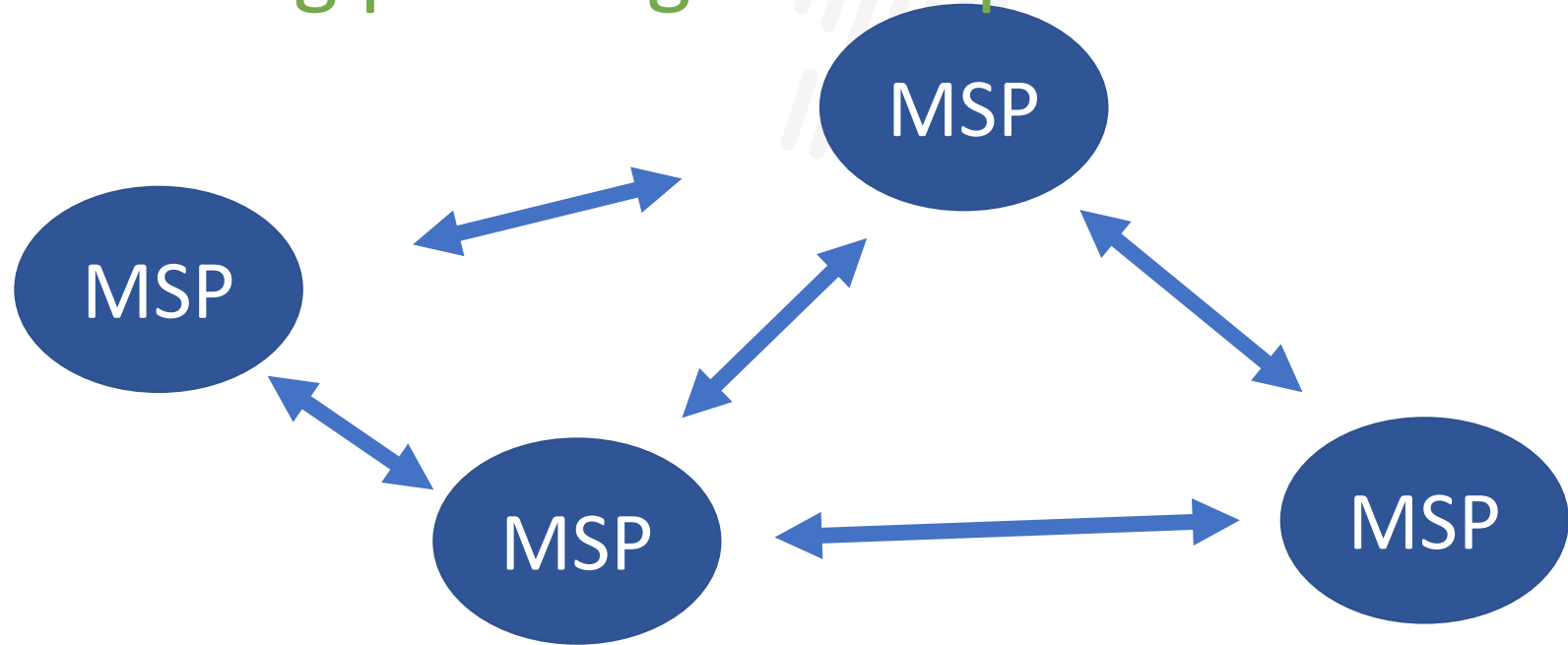


Adding a third dimension! Focus of collaboration



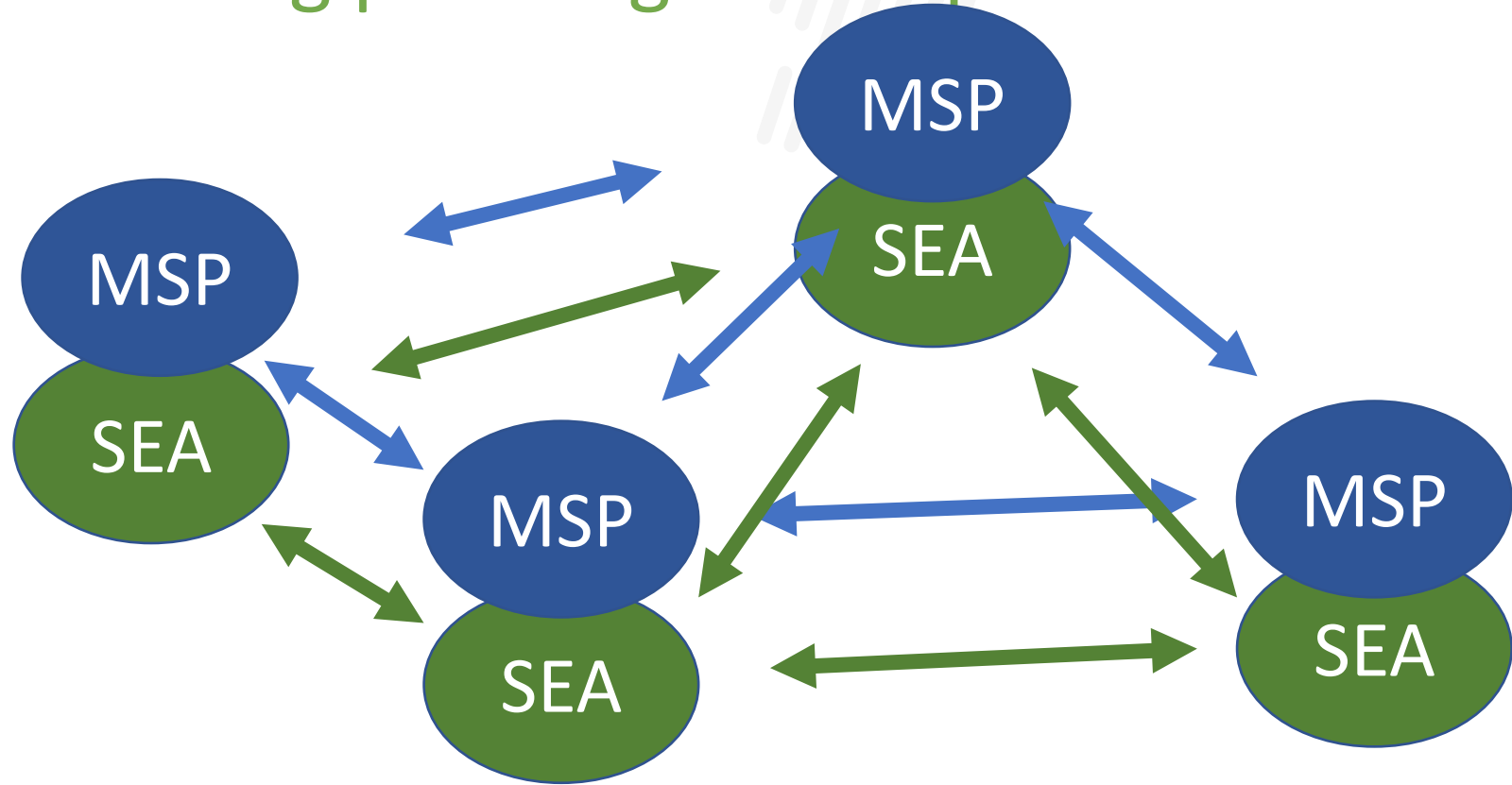


Connecting planning and impact assessment



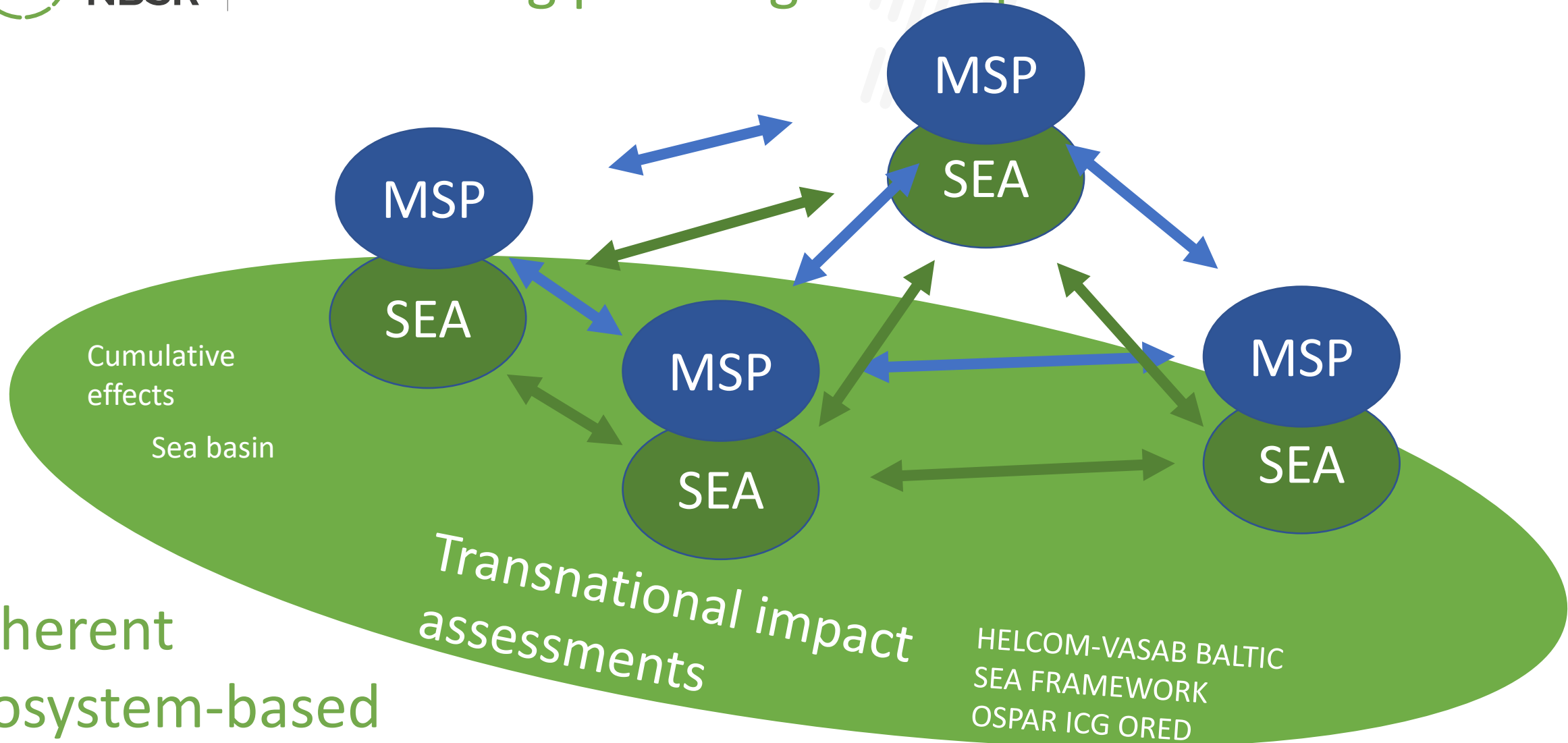
Coherence

Connecting planning and impact assessment

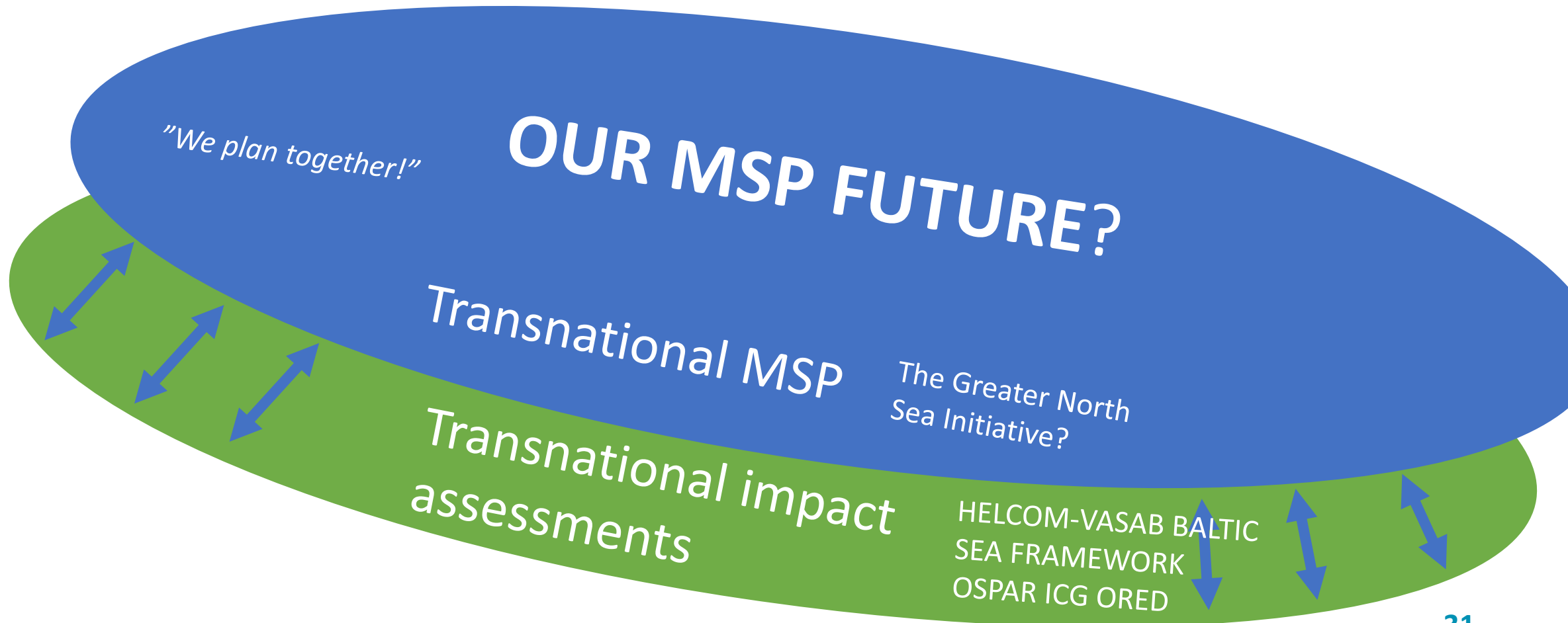


Coherent
Ecosystem-based

Connecting planning and impact assessment



Coherent
Ecosystem-based



Share the same building blocks

Maritime
Spatial
Planning
Directive



Marine
Strategy
Framework
Directive



Good
Environmental
Status

OBJECTIVES

ECOSYSTEM
SERVICES

Ecosystem-
Based
Approach

DESCRIPTORS

CRITERIA

INDICATORS

DATA

EBA DATA
REFERENCE
LIST

So let's play together!

Broadening the assessment

Economic
analysis

Social Impact
Assesment

Economy

Social

Environment

Strategic
Environmental
Assessments

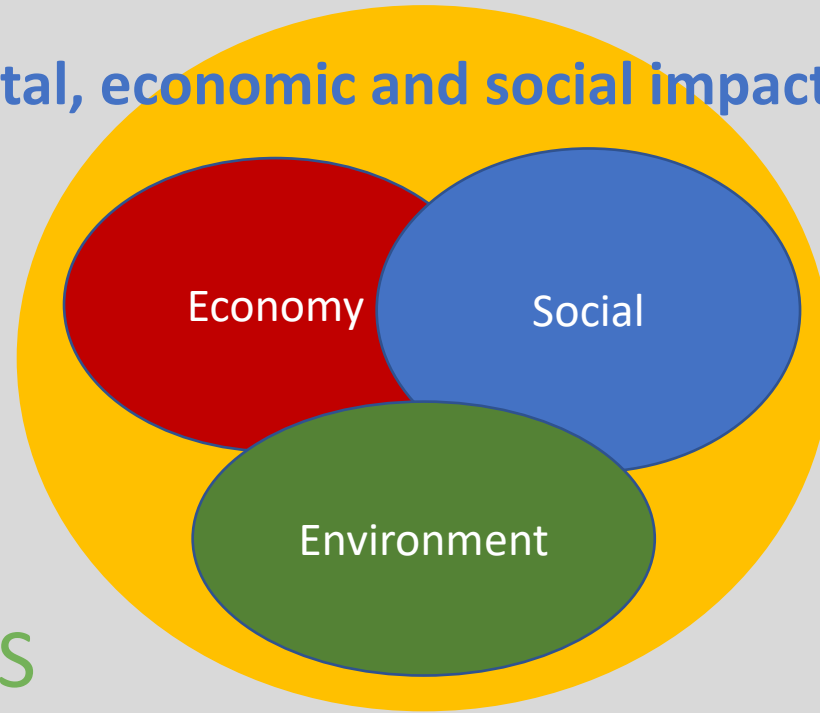
HOLISTIC APPROACH

COMPREHENSIVENESS

as everything
links up

Broadening the assessment

Environmental, economic and social impact assessment



HOLISTIC APPROACH

COMPREHENSIVENESS

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Thank you



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