MSP Data Study (2016)

Evaluation of data and knowledge gaps to implement MSP

- Analyse, per Sea Basin, what data and information are used for MSP; technical and political gaps.

- Identify main data and information issues from perspective of Member States at different stages (and scale) of MSP implementation.

- Consider existing collection mechanisms assembling marine data, data products and metadata and their potential to help coordination of MSP at regional level.

- Examine INSPIRE spatial themes and MSP data categories.

Added Value

- **What can countries learn from each other?**

- **Systematic analysis of what has already been done and where? Transfer of key outputs, synergies**

- **Better understanding of data and knowledge issues from planners perspective:**

  - What's similar? What's different? Clarify terminology

- **Identify future EU funding priorities and policy recommendations, sea basin & macro-regional**

Scope / Boundaries

- **NOT prescriptive**

- **NOT identifying some minimum set of data requirements that countries have to use**

- **NOT an assessment**

- **NOT proposing one-size fits all solution**

Approach

Desk Research
1. Analysis of planners' needs
2. Review of complete and ongoing projects / initiatives
3. Review of operational data infrastructures

Verification with Member States
- Interviews

Synthesis into Sea Basin perspectives

1. Analysis of Planners' Needs

Review of MSP plans, relevant strategy reports from Member States, appointed MSP authority, intention to develop MSP plan

Guiding questions:

- What do planners need to know at which stage of planning process?
- What data categories and data sets does this translate into?
- When/where do planners rely on their own or local knowledge?
- What are the key knowledge gaps?

Overview of data and information categories and data sets, relationship with INSPIRE spatial themes

Known data deficiencies and knowledge gaps

Plans / Strategy Reports

Country	Marine Plan (in English)	Marine Plan (in country language)	Marine Policy Framework	MSP Data or Evidence Strategy	Pilot Plans with Data Element	MSP GIS tool/map evidence base
Bulgaria	No	No	No	No	MARSPLAN BS	To be developed
Belgium	Marine Spatial Plan for the Belgian Part of the North Sea (2014)	Yes	Policy document marine environment, 2009	No	No	Belgian Marine Atlas
Croatia	No	Yes (local plans, needs verification)	No	No	Adriplan	Adriplan data portal
Cyprus	No	No	No	No	THAL-CHOR	THAL-CHOR web-GIS
Estonia	No	Yes (local plans, needs verification)	Yes	No	BaltSeaPlan pilot plans	No
Finland	No	Yes (local plans, needs verification)	No	No	Plan Bothnia	No

... more

2. MSP (data) Projects / Initiatives

European projects and national initiatives, past or current, which address and / or generate:

- Stocktaking maps
- Data / knowledge needs / gaps
- Data portals
- Mapping tools
- Assessment tools
- Data policy
- Transboundary exchange of MSP data

Sea basin overview, distil useful outputs
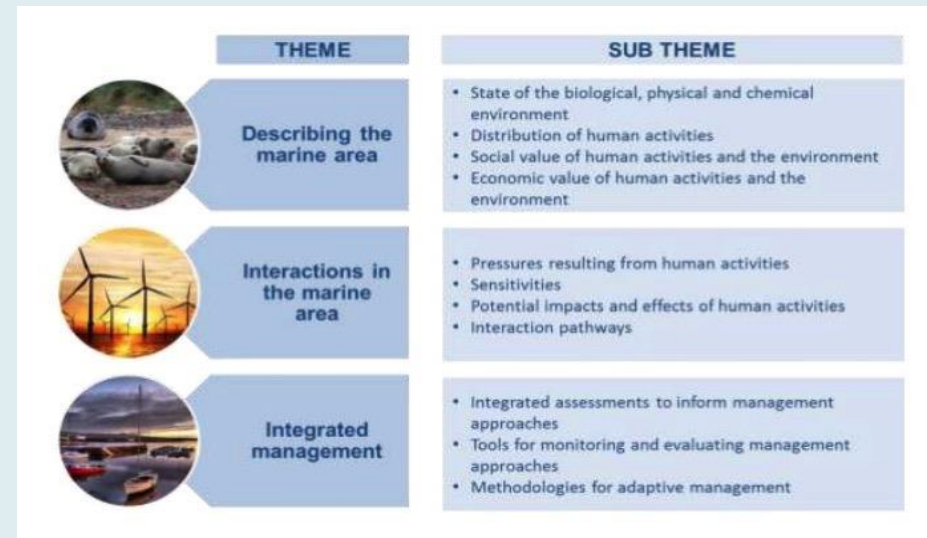
3. Data Infrastructures Review

What is it exactly?

- Data Catalogue
- Data Portal
- GIS Mapping Tool
- Information Service
- Assessment Tool

Spatial coverage?

- European, Sea Basin, Regional, National

Potential scope of data infrastructure

THEME	SUB THEME
Describing the marine area	• State of the biological, physical and chemical environment • Distribution of human activities • Social value of human activities and the environment • Economic value of human activities and the environment
Interactions in the marine area	• Pressures resulting from human activities • Sensitivities • Potential impacts and effects of human activities • Interaction pathways
Integrated management	• Integrated assessments to inform management approaches • Tools for monitoring and evaluating management approaches • Methodologies for adaptive management

MMO Evidence Strategy 2015 – 2020, Part 1:

General Observations

Different styles of planning, different types of evidence

- Political pressure to make space for something, future is the starting point, *versus*
- What might be future needs, visualizing how space could be used, looking into the future

Interpretation, each country has different resources

Countries are using similar data categories.

- Four broad types: environmental, (administrative) boundaries, human activities, socio-economic impacts of activities.
- Physical/biological/ecological layers/datasets mostly aligned with MSFD.
- Predominance of descriptive data, less analytical data included.

Typical MSP Data Categories

Administrative Units
- Boundary data

Activities and Uses
- Aquaculture
- Fishing
- Renewable energies
- Installations & infrastructure
- Maritime transport routes & traffic flows
- Ports
- Nature & species conservation sites & protected areas
- Military
- Raw material extraction areas
- Scientific research
- Submarine cable & pipeline routes
- Tourism and recreation
- Underwater cultural heritage
- Coastal defence

Spatial policy

Socio-economic data
- Human population
- Economic indicators
- Social indicators

Physical/Chemical/Biological information
- Physical characteristics
- Types of habitat
- Biological characteristics
- Pressures and impacts

Data Categories & INSPIRE

CATEGORY	Examples for datasets commonly used in marine plans	Relevant INSPIRE theme, numbers relate to Annex and subcategory
ADMINISTRATIVE BORDERS		
Boundary data	National	Administrative units (1.4)
	Regional	Administrative units (1.4)
	Local	Administrative units (1.4)
	Territorial water	Administrative units (1.4)
	EEZ	Administrative units (1.4)
ACTIVITIES/USES		
Aquaculture	Designated aquaculture areas	Agricultural and aquaculture facilities (3.9)
	Potential aquaculture areas	Agricultural and aquaculture facilities (3.9)
Fishing	Spawning and nursery areas	Habitats and biotopes (3.18)
	Fish migration routes	Habitats and biotopes (3.18); Species distribution (3.19)
	Inshore fisheries mapping	Production and industrial facilities (3.8)
	VMS amalgamated density layers	Production and industrial facilities (3.8)
	Number of vessels	Production and industrial facilities (3.8)
	Capacity of vessels	Production and industrial facilities (3.8)
	Vessels according to fishing method	Production and industrial facilities (3.8)
	Fishery harbours	Geographical names (1.3)
	Fish landings per harbour	
	Fish processing industry (location)	Production and industrial facilities (3.8)
	Gross added value (national)	

... more

Key Findings

Three areas

1. Data and information needs
2. Transboundary exchange of data
3. Role of pan-European initiatives

Data and Information Needs …

strongly depend on type of planning being carried out.

… similarities

- Countries are trying to do similar things: stocktaking, conflict analysis, drawing up plan, planning for the future.

- Each step needs different inputs and types of data / information.

- Countries are confident with stocktaking and descriptive part of MSP status quo assessments.

- Data categories currently used by MSP planners show many similarities.

- Second generation plans tend to be more ambitious, focus on broader range of evidence.

Data and Information Needs

... differences
- scope of activities and sea uses, weight given to each sector in terms of diversity of data specified.
- level of importance given to data issues.

... need for socio-economic data to go into MSP
- data is badly compartmented, how to distinguish between terrestrial and marine data?

... socio-cultural information almost entirely lacking
- tools and guidance on how to practically factor in value of ecosystems services.

Data and Information Needs

... linking MFSD and MSP data efforts
- makes sense to explicitly link MSP with MSFD
- ensures MSP is based on sound environmental evidence
- MSP can contribute to achieving objectives of MSFD
- basis for implementing Ecosystem Based Approach

... moving from descriptive to strategic evidence
- demand for actual data for MSP overestimated.
- building strategic evidence base.
- not **what data** but **how to aggregate and interpret data**

Data and Information Needs

… common information gaps

- Analysis of commercial fisheries information …
- Cultural heritage and nature conservation …
- Recreation and tourism …
- Strategic assessment of cumulative effects
- Co-existence for marine planning and marine licensing
- Impact assessments and sustainability appraisals
- Impact displacement of activities over time
- Relationships between uses and ecosystems
- Assessing cause and effect, accumulation of impacts, risks
- Ecosystem service assessments
- Implementing full ecosystem approach

Data and Information Needs

... need for spatial evaluation tools & exchange of practices

- assessment, impact and conflict analysis
- spatial dimension of future trends
- future scenario planning
- examples ...

... why are existing tools developed in projects not used?

- not fit for purpose for 'real' MSP planners
- not known to MSP planners
- potential scope not communicated sufficiently

Data and Information Needs

European
MSP Platform

... relevant ongoing projects / initiatives

- BaltCoast (2015 – 2018)
- BaltSpace (2015 – 2018)
- Baltic Scope (2015 – 2017)
- BalticLINEs (2016 – 2019)
- SmartSea (2016 – 2021)
- VELMU Finland (2013 - ...)
- SeaGIS (2015 – 2018)
- HELCOM/VASAB MSP Data Group (2015 – 2016 ...)

- NorthSEE (2016 – 2019)
- SIMCelt (2016 – 2017)
- *SIMNorAt (2017 – 2018)*
- SNIMar Project (2016 - ??)
- *SIMWestMed (2017 – 2018)*
- RITMARE (2012 – 2016)
- MARSPLAN (2015 – 2017)
- EMODnet Sea Basin Checkpoints (2015 – 2017)

s.Pro
sustainable
projects

Transboundary Data Exchange

European
MSP Platform

... transboundary data needs are different to national MSP data needs
- different scope
- coherence across boundaries, data harmonisation
- language issues, political agreement
- cooperation between local and regional interest groups, high level of trust

... relevant ongoing projects / initiatives

- BalticLINEs (2016 – 2019)
- NorthSEE (2016 – 2019)
- SIMCelt (2016 – 2017)
- *SIMNorAt (2017 – 2018)*
- *SIMWestMed (2017 – 2018)*
- Marsplan (2015 – 2017)
- HELCOM/VASAB MSP Data Expert Sub Group (2015 – 2016 ...)
- EMODnet Sea Basin Checkpoints

- (2015 – 2017)
- DCF (2008 - ....)
- CISE (2014 – 2017)

Pan-European Initiatives: EMODnet

… EMODnet Sea Basin Checkpoints
- Fitness for purpose of existing marine services to solve particular commercial and policy challenges which are relevant to MSP data:
  - Wind farm siting
  - Marine protected areas
  - Oil platform leak
  - Climate and coastal protection
  - Fisheries management
  - Marine environmental management
  - River inputs to coastal environment
- Data Adequacy Reports (DARs):
  - Mediterranean and North Sea – available
  - Baltic and Black Sea – in review
  - Atlantic – submission pending

Pan-European Initiatives: INSPIRE

Most MSP data themes can be mapped directly onto INSPIRE data themes, but some exceptions:

- Fishing; Renewable energies; Tourism; Ports; Spatial policy
- Economic data not considered

As MSP evolves, newer, more complex data categories will evolve which cannot be catered for within INSPIRE

- Promote exchange of knowledge between MSP and INSPIRE, e.g. similar to MSFD and INSPIRE through Marine Pilot project.
- Add MSP themes to INSPIRE and/or expand definitions of INSPIRE data themes for MSP purposes?
- INSPIRE isn't everything: consider complementary initiatives for transboundary spatial needs for MSP, e.g. EMODnet, DCF, CISE …

Want to find out more …

Report finalised **mid-December**, available interactively through **MSP Platform**
- **http://www.msp-platform.eu/**

What's inside? only 50 pages! (excluding annexes)
- **Analysis of Planners' Needs**
- **Review of European Projects and Initiatives**
- **Review of Data Infrastructures with Relevance to MSP**
- **Case Studies:**
    - 1. Putting transboundary MSP data policy into action - a history of MSP collaboration in the BSR
    - 2. Strengths and weaknesses of Coastal Information Systems – Options for CIS
- **Key findings, conclusions and way forward**
- **Annexes:**
    - Sea basin overviews
    - Interview questions and spreadsheet of detailed results