

Socioeconomic impact of the MSP

MSP Data Tools and Guidance Workshop

13 March 2024

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Consiglio Nazionale delle Ricerche





Socioeconomic Data in MSP

Why, what for

The Blue Economy and MSP

Empirical applications



The SE TEG Subgroup

Literature review

Guidelines

Data model harmonization and SE



What is next?

Incoming- ReMAP

Forthcoming

Economic and social data in MSP



- Support MSP development, monitoring and assessment.
- Provide **evidence on the benefits** stemming from the **plans**
- Help to achieve the objectives of sustainable blue economy strategies
- Foster **public acceptance** and **trust** in planning



DIRECTIVES

**DIRECTIVE 2014/89/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 23 July 2014
establishing a framework for maritime spatial planning**



13 references to
socio-economy

Article 5

Objectives of maritime spatial planning

1. When establishing and implementing maritime spatial planning, Member States shall consider **economic, social** and environmental aspects to support sustainable development and growth in the maritime sector, applying an ecosystem-based approach, and to promote the coexistence of relevant activities and uses.

Article 6

Minimum requirements for maritime spatial planning

2. In doing so, Member States shall:
- (a) take into account land-sea interactions;
 - (b) take into account environmental, **economic and social aspects**, as well as safety aspects;

BASELINE – BLUE ECONOMY

Marine Policy 42 (2013) 111–124

Contents lists available at SciVerse ScienceDirect

 **ELSEVIER**

Marine Policy


journal homepage: www.elsevier.com/locate/marpol



Marine economy: A proposal for its definition in the European Union  CrossMark

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Study on the Establishment of a Framework for Processing and Analysing of Maritime Economic Data in Europe

Final Report
MARE/2014/45

Contract: COSTAR, Pooled-in
June 2017



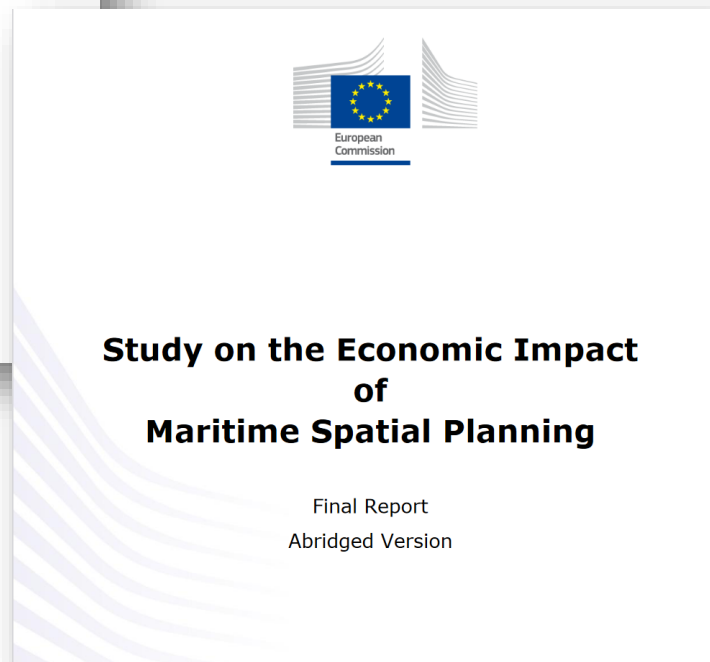
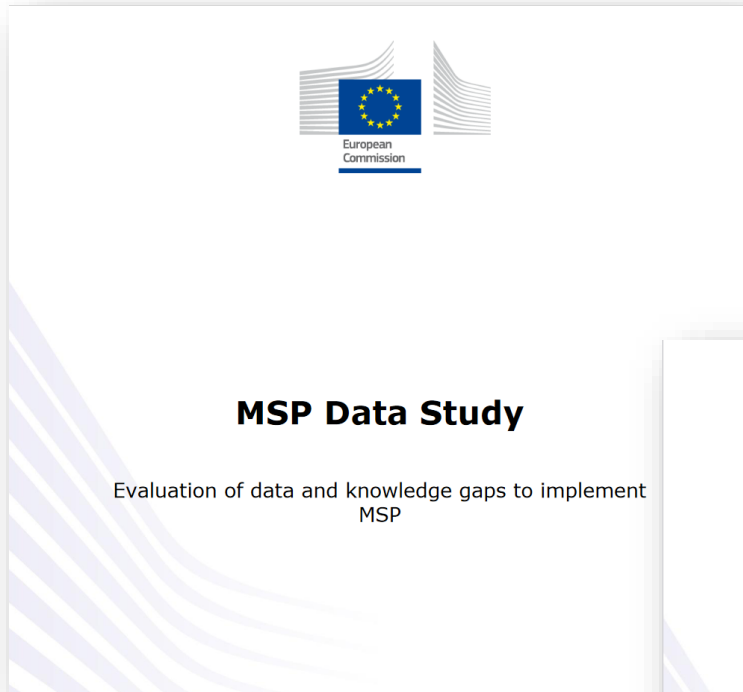
THE EU BLUE ECONOMY OBSERVATORY 2023



Scan the QR code to explore the website



BASELINE – Maritime Spatial Planning (MSP)





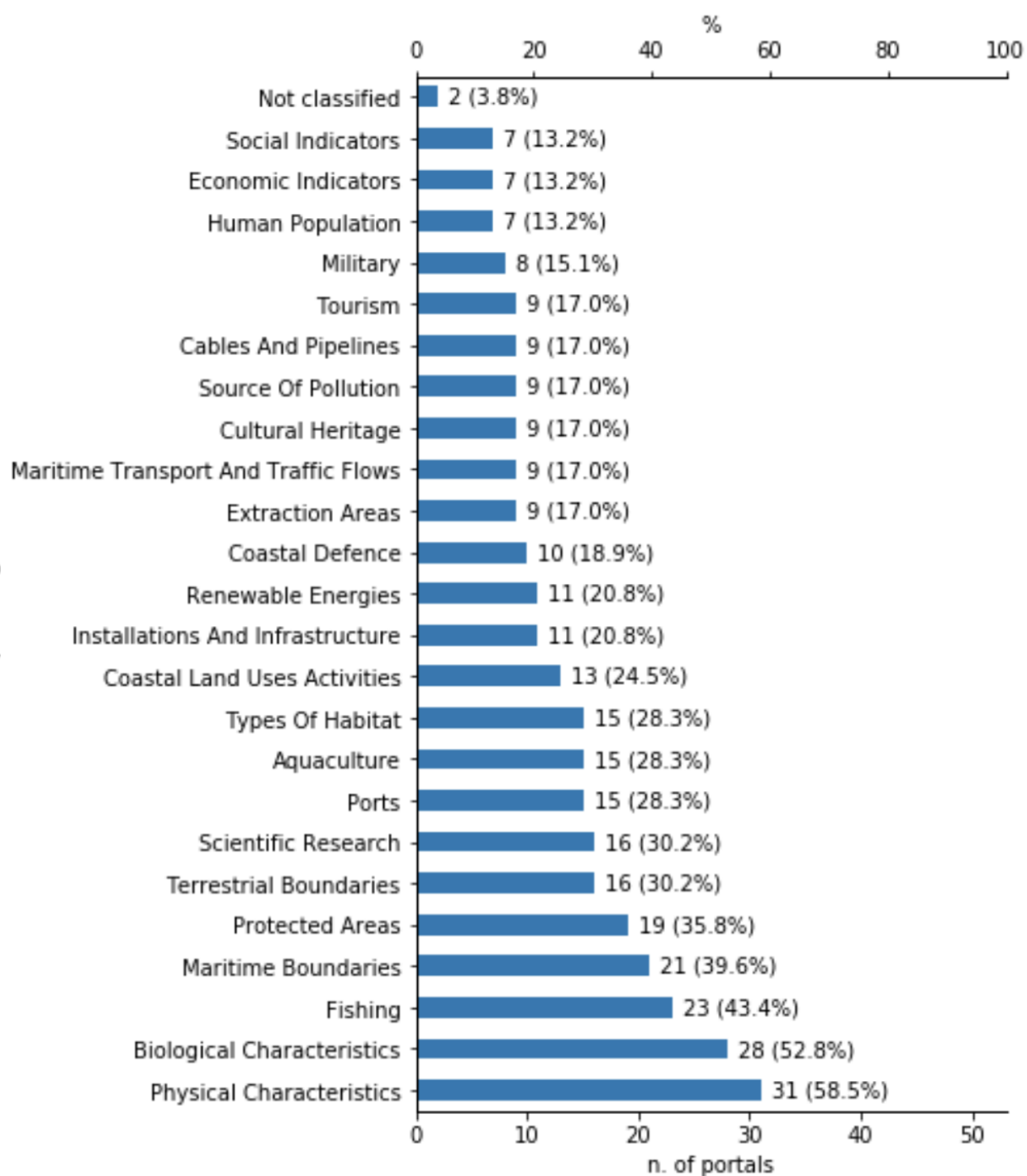
MSP Data

Evaluation of data and know
MSI

2017

Data gap!

Topic categories



Study on the Economic Impact of Maritime Spatial Planning

Final Report
Abridged Version

2020

Methodological gap!

What data?

Economic data

- Production Value
- Gross Value Added
- Personnel cost
- Persons employed
- Number of companies

Social data

- Population by education
- Population of coastal municipalities linked to the Blue sectors
- Rates by sex, age and coastal regions of persons employed
- Gini coefficient
- Life expectancy
- Duration of working life
- Staff / Financial resources assigned to MSP processes



Approximately **75 of 150** countries have implemented or are developing some form of MSP (Ehler, 2020)

Descriptive

- Analysis of activities
- Relationships

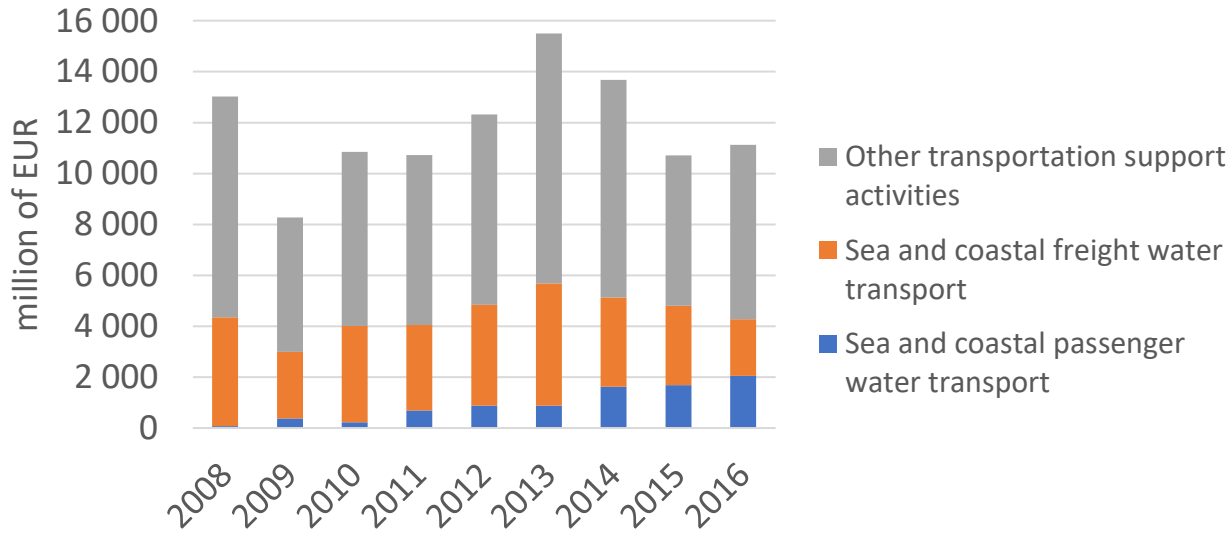
Model input

- Impact assessment of uses allocation
- Trade-off analysis

Model output

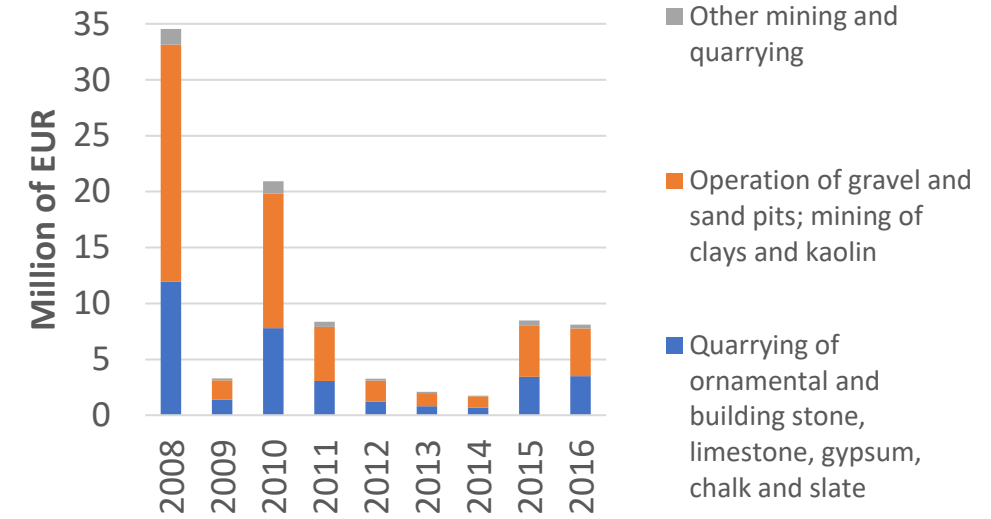
- SE impact of implementing an MSP
- Direct
- Indirect
- Induced

ECONOMIC PERFORMANCE OF SHIPPING SECTOR (BALTIC SEA BASIN)

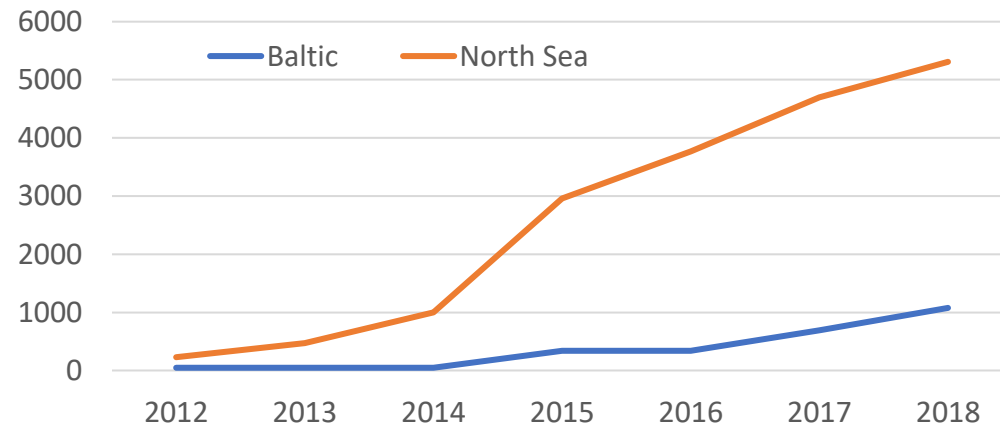


Source: Eurostat

EXTRACTION OF AGGREGATES SECTOR (BALTIC SEA BASIN)



MW INSTALLED WITH GRID CONNECTION IN THE GERMAN EEZ



Source: Deutsche WindGuard GmbH for renewable energy

Advancing



Business Aquaculture Energy Ship_building
 Tourism Transport Other

Katila, et al., 2019

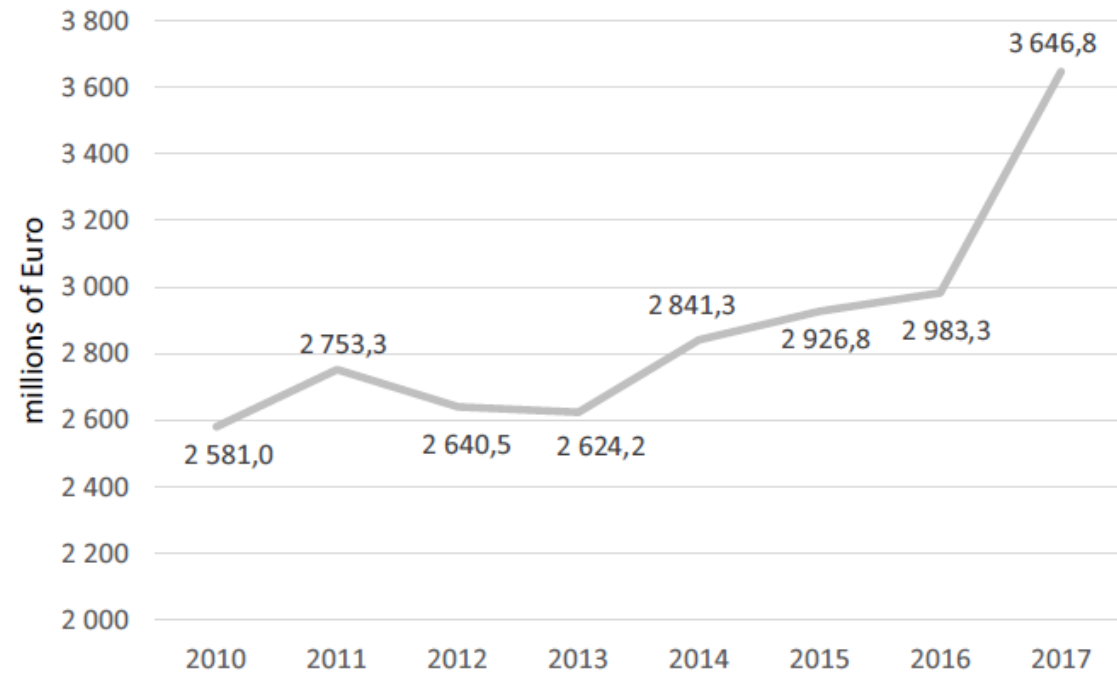
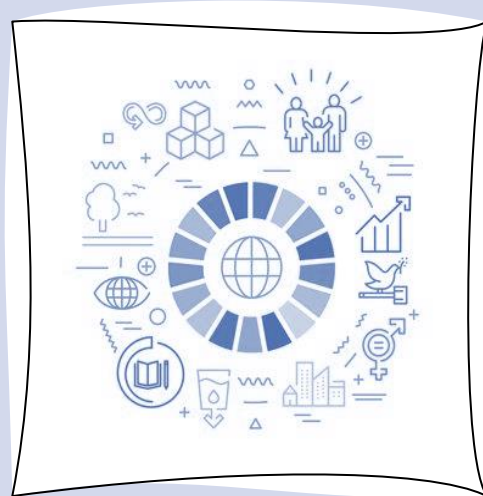


FIGURE 3
 The size of the Polish blue economy in 2010–2017. Source: own elaboration.

Kwiatkowski and Zaucha, 2023

[NUTS classification](#) (Nomenclature of territorial units for statistics) is a hierarchical system for dividing up the economic territory of the EU.



The SE TEG Subgroup

Goals

Findings and methodological approaches

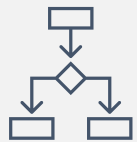
Objectives



To deliver **practical ways** to integrate the economic and social dimensions in MSP.



To **advance knowledge and methodological approaches** for gathering data.



To support **evidence-based decision-making** by integrating the socioeconomic dimension.



Literature review

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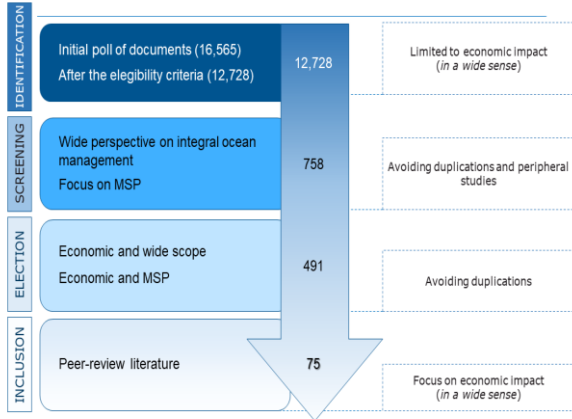
Survey

+

Expert knowledge



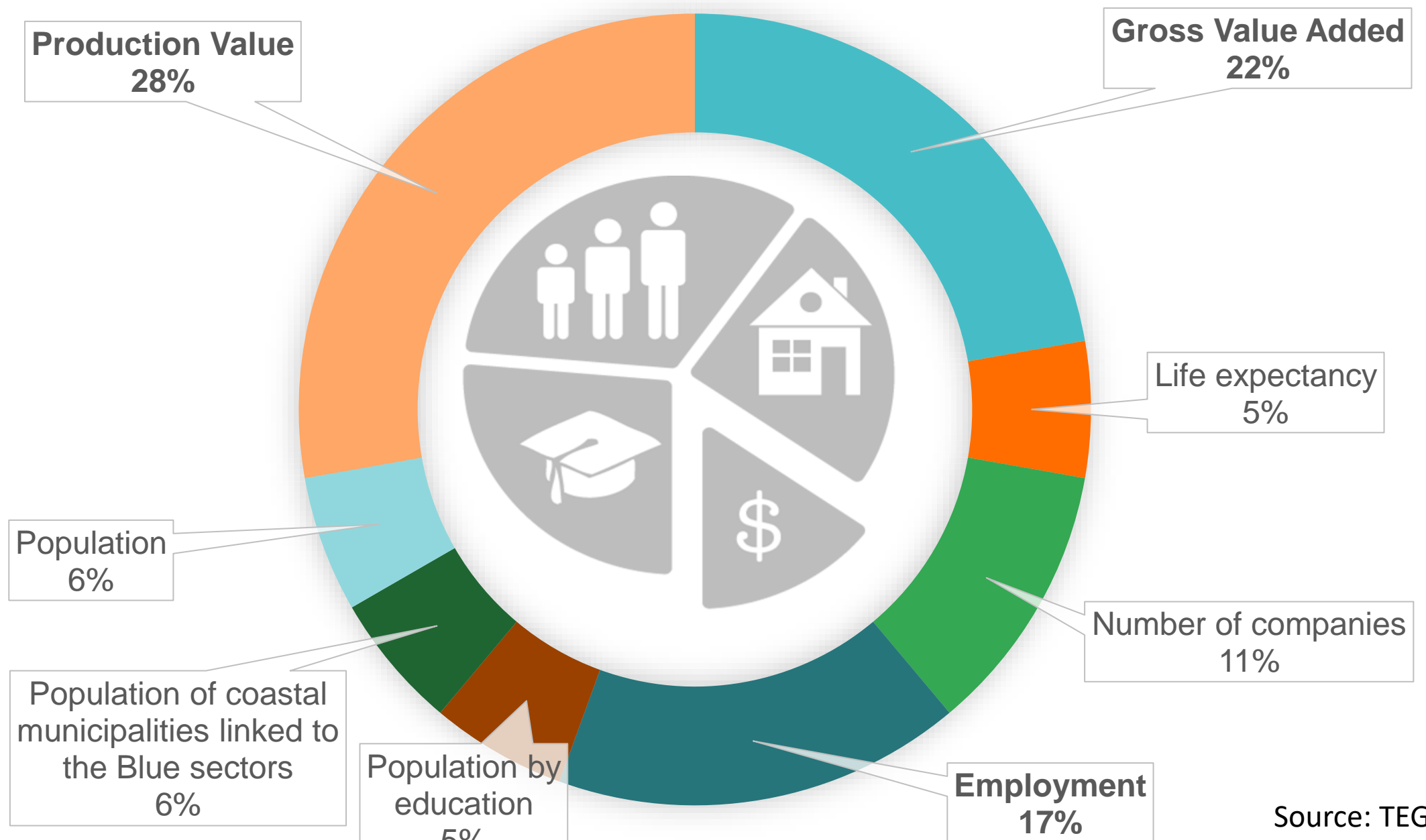
> 12 500 articles reviewed
75 suitable for analysis



1. Preparation			
Needs Authority	Financial support	Pre-planning	Stakeholder participation
16%		6%	9%
2. Elaboration			
Existing conditions	Future conditions	Spatial management plan	
37%	17%	4%	
3. Implementation			
Implementing	Monitoring	Adapting	
	10%	1%	

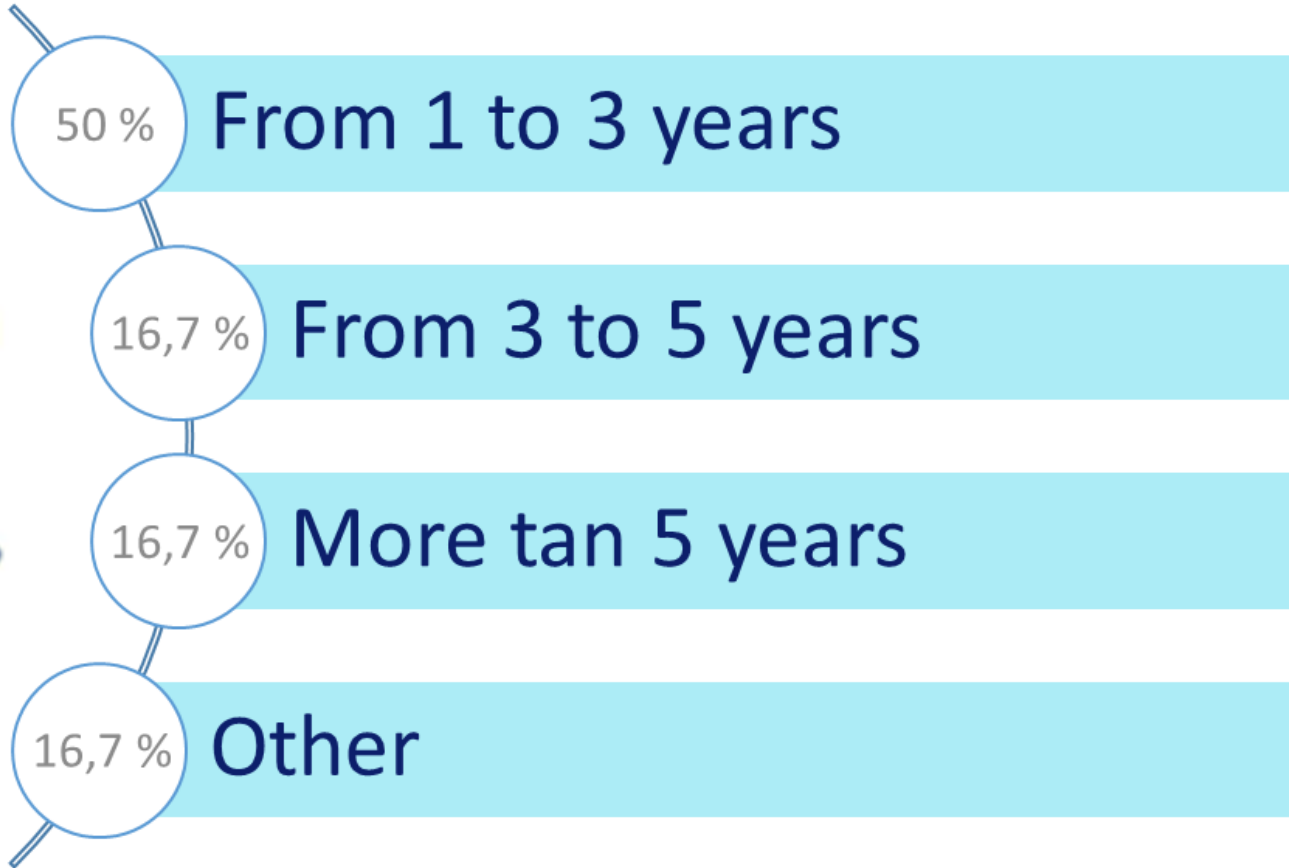
- Limited attention in the scientific literature.
- Focus on the short-term and descriptive analysis of economic (GVA and production value) and socioeconomic (employment).
- Methodological developments are scarce.

WHAT ARE THE SOCIOECONOMIC DATA AVAILABLE RELATED TO THE PLAN?





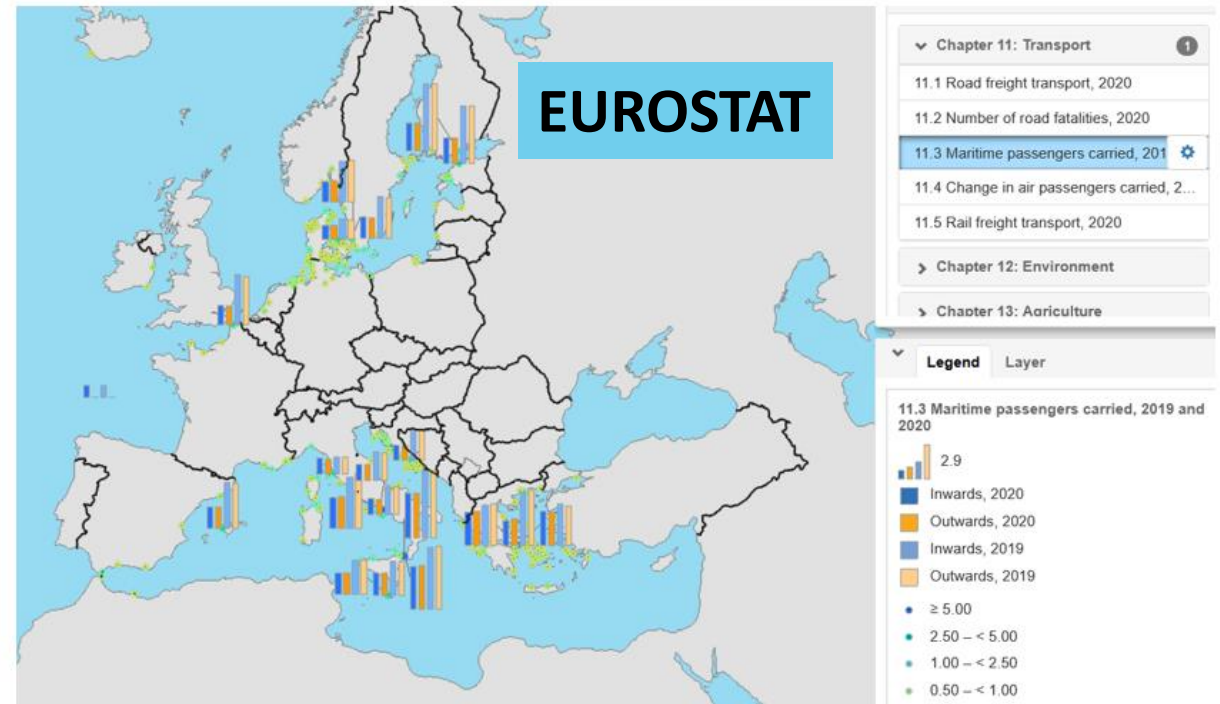
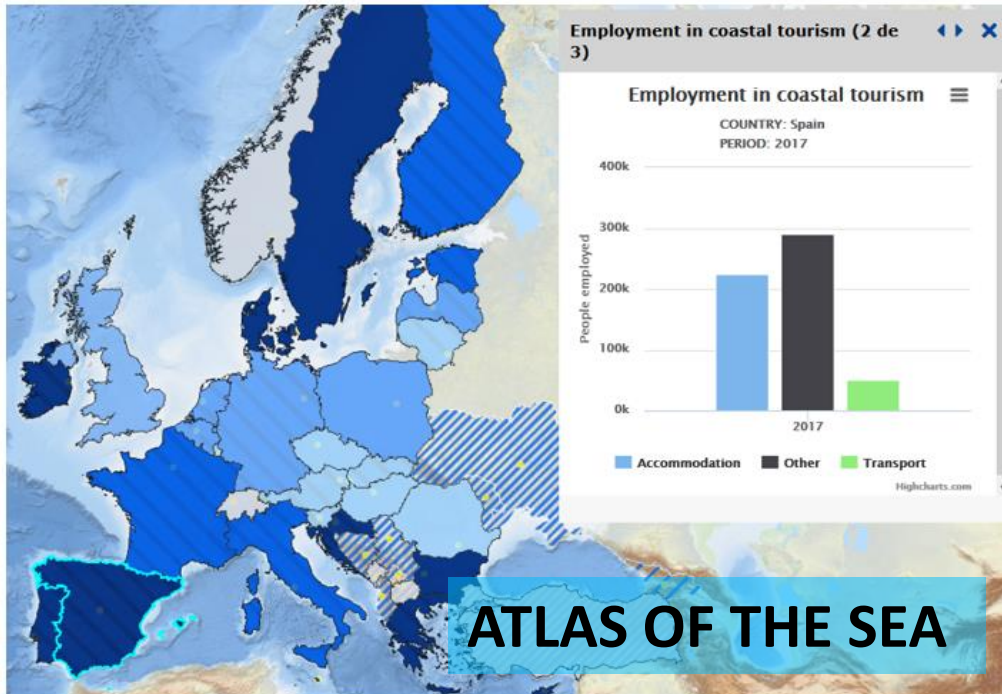
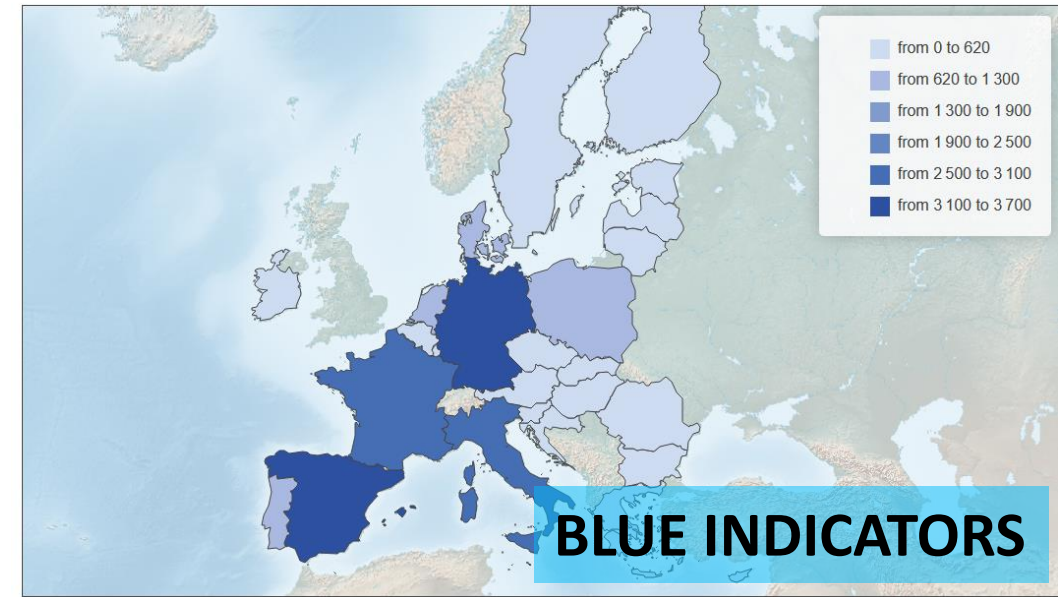
**Time series for
socioeconomic data**



SOCIOECONOMIC DATA ARE NOT INCLUDED IN ANY VISUALIZATION TOOL



GVA of Marine Living Resources sector in 2019





Literature review

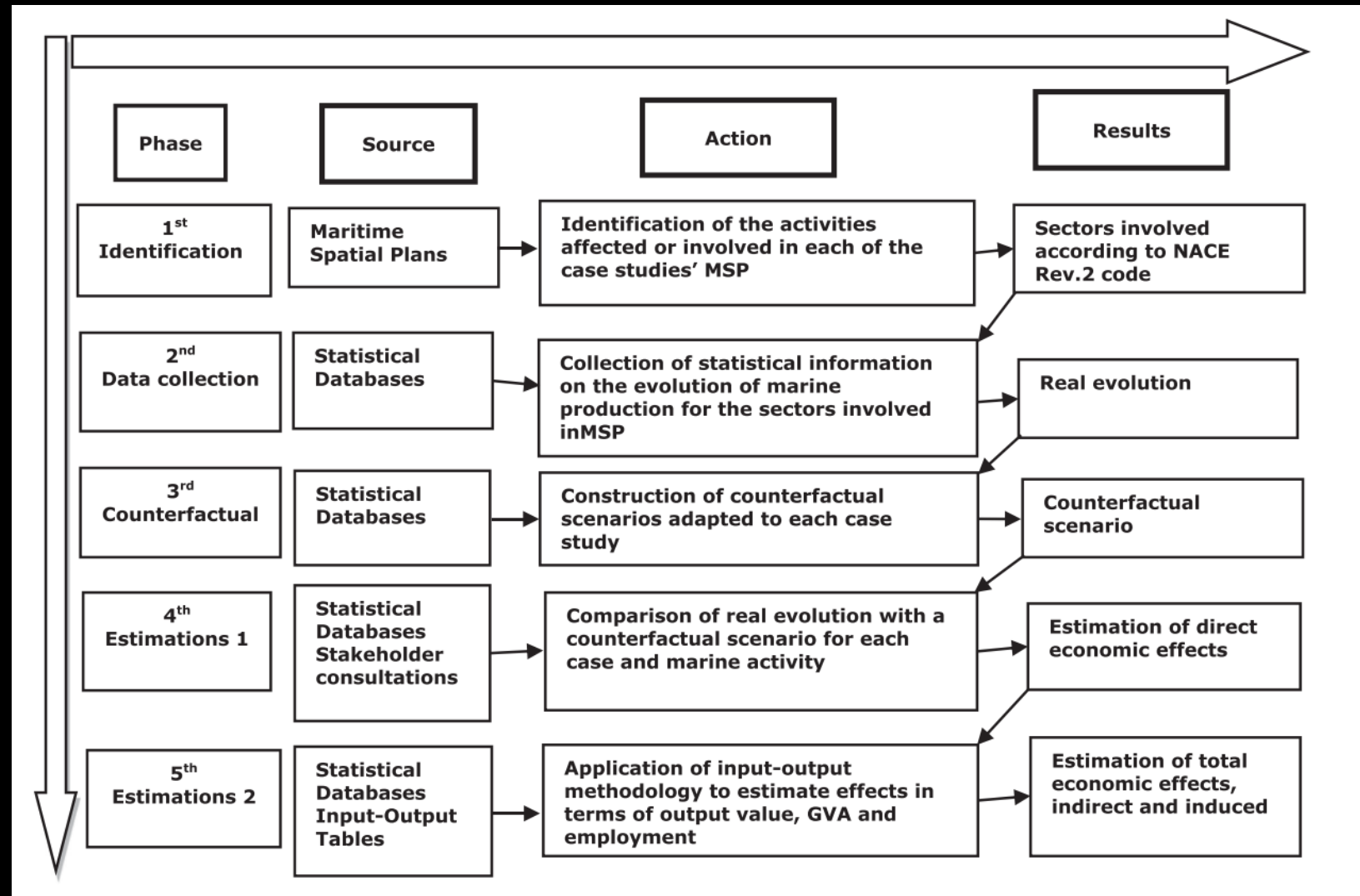
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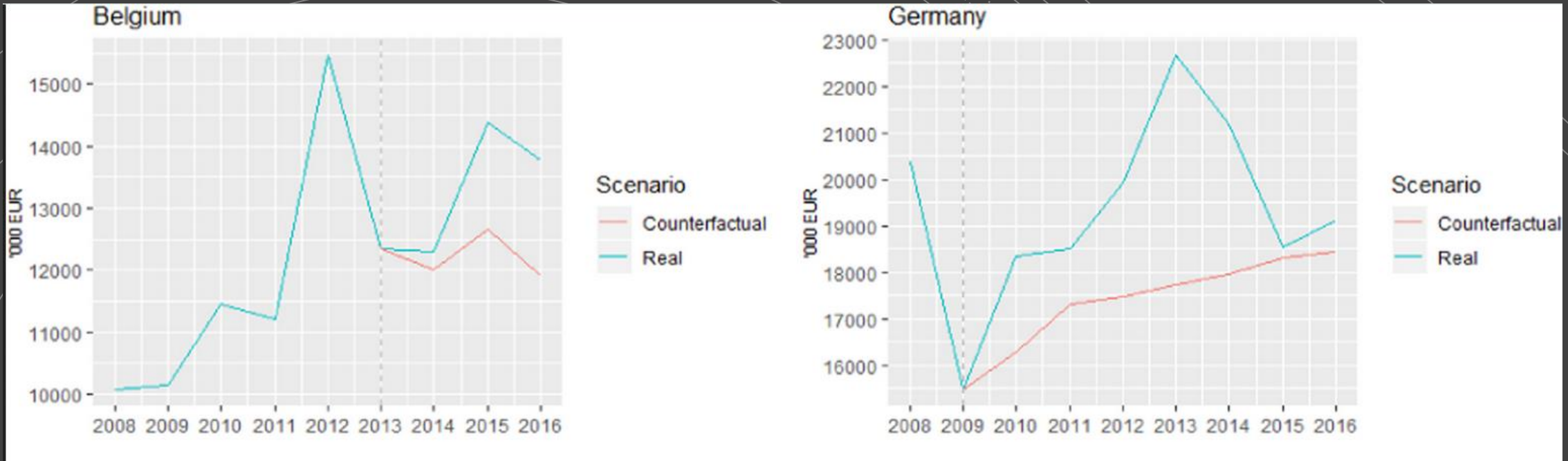
Survey

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Expert knowledge

Methodological approach: Input-output techniques



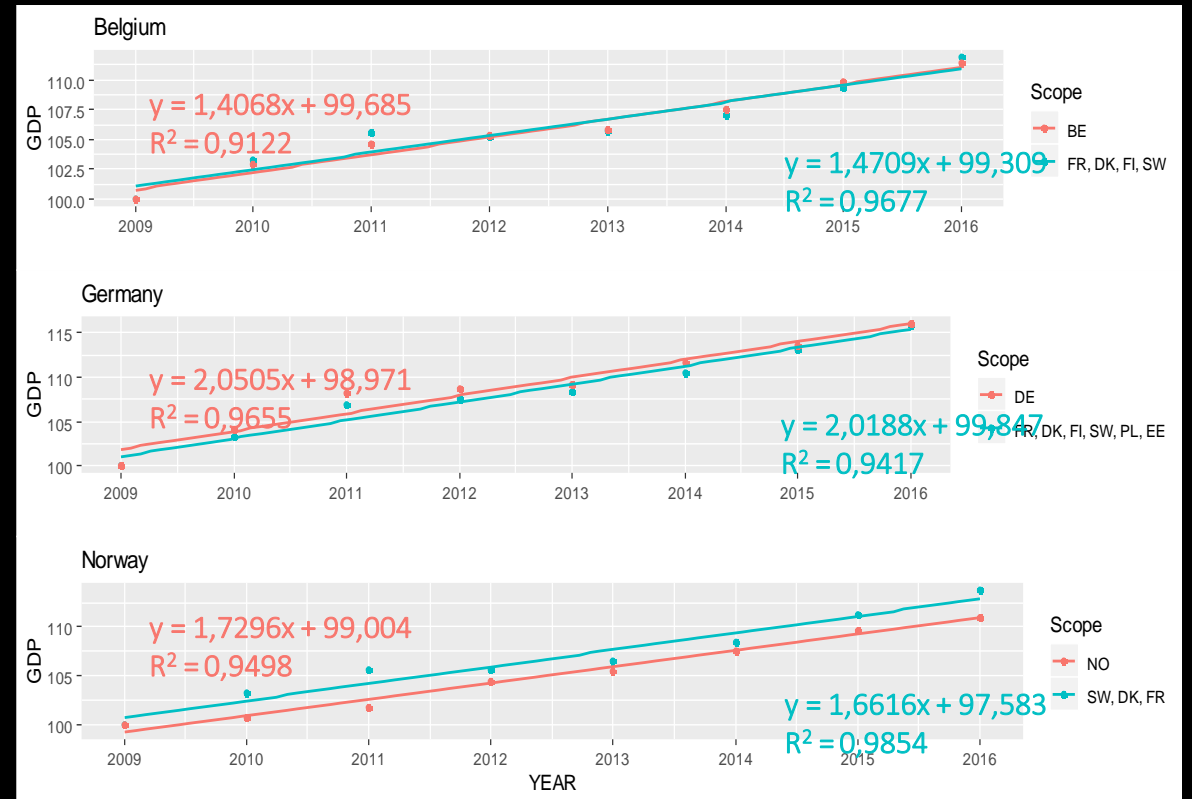


Surís-Regueiro, J., Santiago, J.L and González-Martinez X.M, 2021

Addressing MSP questions

- Are there economic and/or social benefits stemming from the implementation of Marine Spatial Plans?

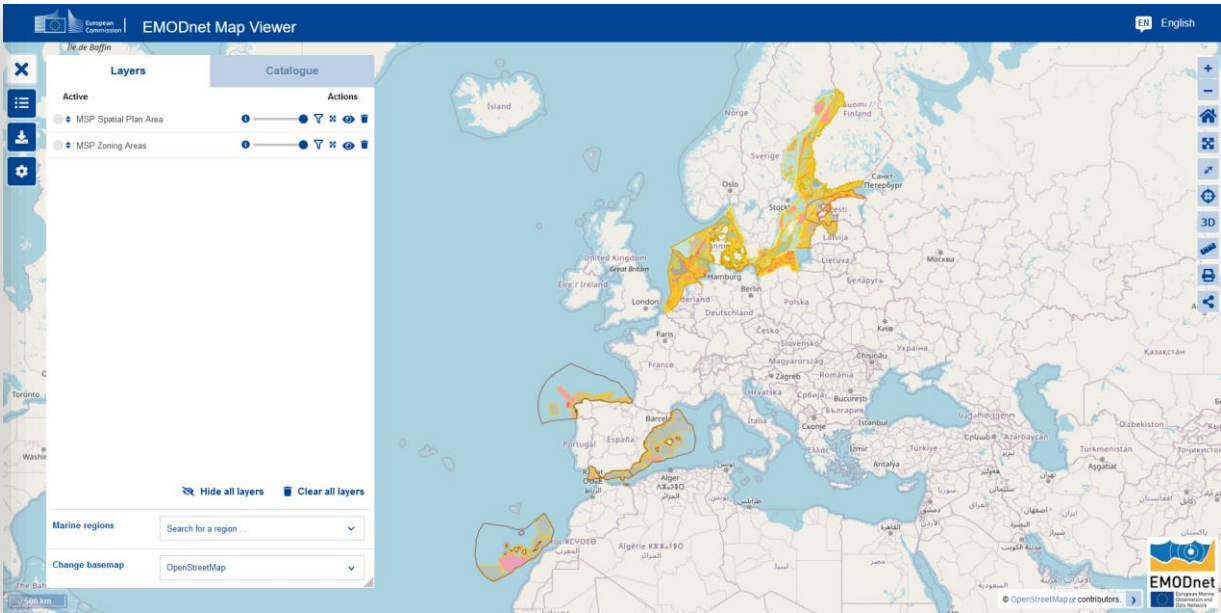
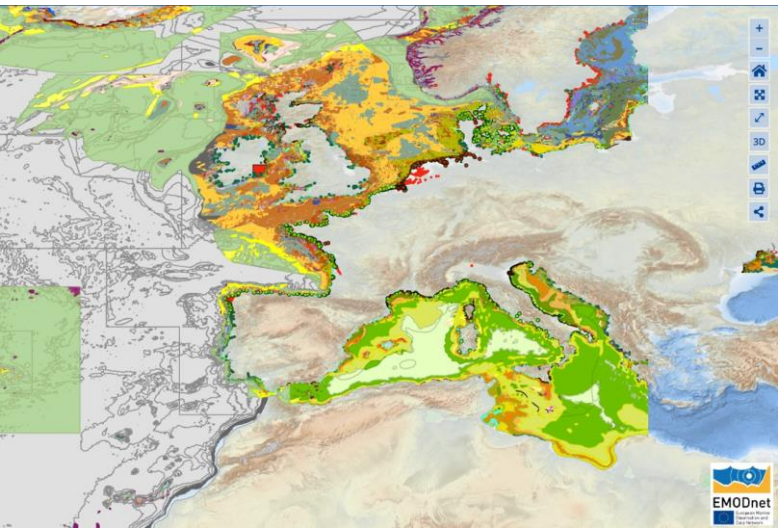
1. Identification of sectors
2. Real evolution of marine activity production
3. Construction of the counterfactual scenarios
4. Estimations: initial direct impact
5. Stakeholder consultation: weighting up direct impact.
6. Estimation of direct, indirect and induced impact.



Stakeholders' perceptions of MSP's effect on production differences in marine activities with respect to other neighbouring economies.






NACE codes	Activity scenarios	Belgium			Germany			Norway		
		Low	Med.	High	Low	Med.	High	Low	Med.	High
A0311	Marine fishing	0%	12.5%	25%	0%	12.5%	25%	0%	12.5%	25%
A0321	Marine aquaculture	0%	12.5%	25%						
G4638	Wholesale of other food, including fish, ...	0%	12.5%	25%						
C1020	Processing and preserving of fish..	0%	12.5%	25%				0%	12.5%	25%
B0610	Extraction of crude petroleum							0%	0%	0%
B0620	Extraction of natural gas							0%	0%	0%
B0910	Support activities for petroleum.							0%	0%	0%
B0811	Quarrying and building stone, limestone, ...	75%	87.5%	100%	50%	67.5%	75%			
B0812	Operation of gravel and sand pits;.	75%	87.5%	100%	50%	67.5%	75%			
B0899	Other mining and quarrying				50%	67.5%	75%			
H5010	Sea and coastal passenger water transport				0%	12.5%	25%	0%	12.5%	25%
H5020	Sea and coastal freight water transport	0%	12.5%	25%	0%	12.5%	25%	0%	12.5%	25%
H5229	Other transportation support activities	0%	12.5%	25%	0%	12.5%	25%	0%	12.5%	25%
N7734	Rental services of water transport.	0%	12.5%	25%						
H5210	Warehousing and storage services	0%	12.5%	25%						
H5222	Service activities to water transportation	0%	12.5%	25%						
H49	Tourism: Land transport				0%	12.5%	25%	0%	12.5%	25%
H51	Tourism: Air transport				0%	12.5%	25%	0%	12.5%	25%
I55	Tourism: Accommodation	0%	12.5%	25%	0%	12.5%	25%	0%	12.5%	25%
I56	Food and beverage service activities	0%	12.5%	25%	0%	12.5%	25%	0%	12.5%	25%
N77	Tourism: recreational and sports goods							0%	12.5%	25%
N79	Tourism: Travel agency, ...	0%	12.5%	25%	0%	12.5%	25%	0%	12.5%	25%
R90-92	Tourism: Culture and entertainment							0%	12.5%	25%
D3511	Production of electricity	75%	87.5%	100%	25%	37.5%	50%			
F4291	Construction of water projects	0%	12.5%	25%						

Combining tools – EMODnet Human Activities and TEG



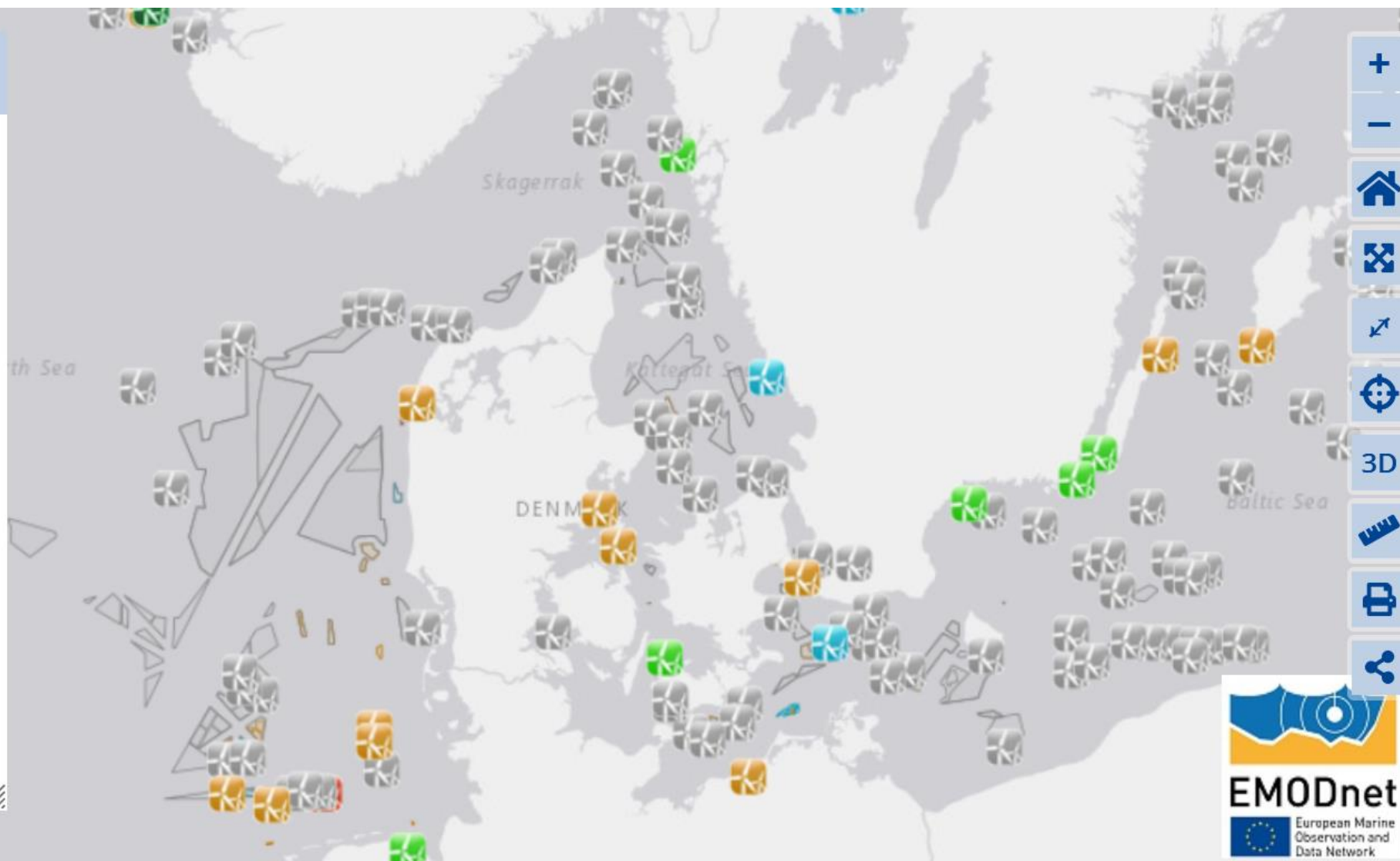
Legend

Wind Farms (Points)

-  Approved
-  Dismantled
-  Planned
-  Production
-  Under Construction
-  Test site

Wind Farms (polygons)

-  Approved
-  Dismantled
-  Planned
-  Production
-  Under Construction
-  Test site



MAKING ECONOMIC INFORMATION SPATIALLY EXPLICIT

HOW MUCH & WHERE



USING ECONOMIC & SOCIAL INFORMATION FOR DECISION MAKING

Priority areas



Delivering knowledge for action!

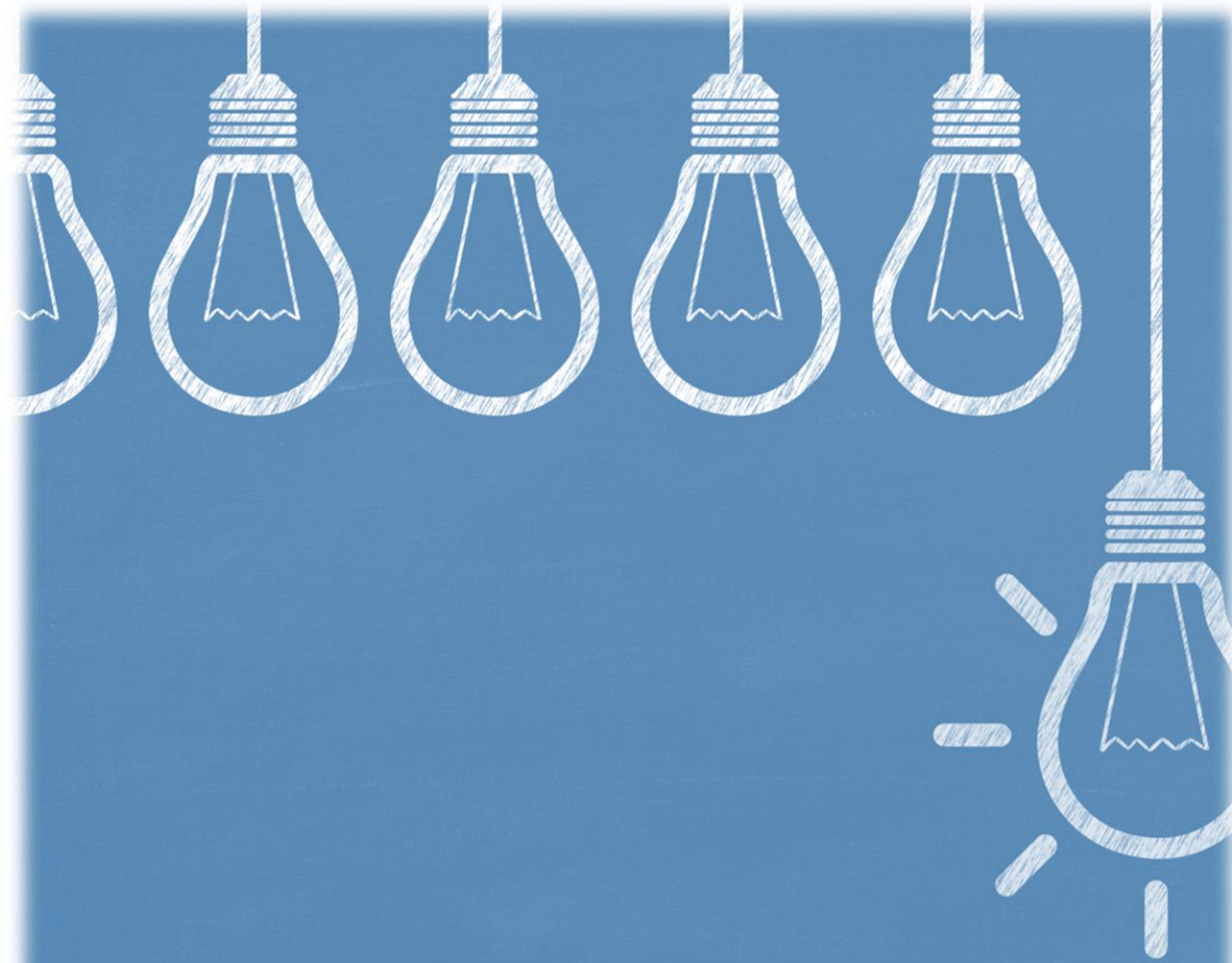


Guidelines for the integration of the Socioeconomic impact of MSP

Technical Expert Group on Data for MSP
(Socioeconomic Subgroup)



- MSs use **basic socioeconomic indicators** of the maritime activities for **descriptive** purposes, covering mostly **short-term** periods.
- There is a **mismatch** between the **stated need and relevance** of the socioeconomic data and the capability to use them.
- Continuum between **data rich-spatially explicit** activities that need to connect the dots (e.g. fisheries) and **spatially explicit-socioeconomic data poor** activities (e.g. seabed mining).



Main findings

Recommendations

1. To make **use** of the socioeconomic **data already available**
 - a. From systematic processing of official data (e.g., structural business statistics)
 - b. Qualitative knowledge to fill the gaps
2. To search for **synergies with other initiatives**, for instance MSFD socioeconomic groups





Recommendations

3. To advance towards an accurate **geographical definition of the human activities** developed in EU's Sustainable Blue Economy:
 - a) To add **geographical attributes** into the **Blue Indicators**.
 - b) To **expand** the current economic **statistics**.
 - c) To **link permissions** and **licenses** of the MSPs **to** the **data provision**.
 - d) To **develop proxies** to disaggregate economic activities at sea-basin level.



Recommendations

4. To address specific challenges through a **case study/pilot study approach**
 - a) Moving **from NUT3** territories to limit the number of potential data sources **towards NUT2/NUT1**, advancing in harmonization and aggregation at country level
 - b) Using **contextual information** (quantitative and qualitative) **to adjust** the socioeconomic data in geographical terms.
 - c) Take advantage of the **ongoing MSP projects & initiatives** funded by the European Commission

2024 OCEAN DECADE CONFERENCE

DELIVERING THE SCIENCE WE NEED FOR THE OCEAN WE WANT 10-12 APRIL 2024 BARCELONA, SPAIN

As part of the Ocean Decade Week (8-12 April 2024)

Join us at the Knowledge-based Climate-Smart Maritime Spatial Planning Booster

Barcelona, 9th April
17:00- 19:00
ONLY 30 SPOTS AVAILABLE!



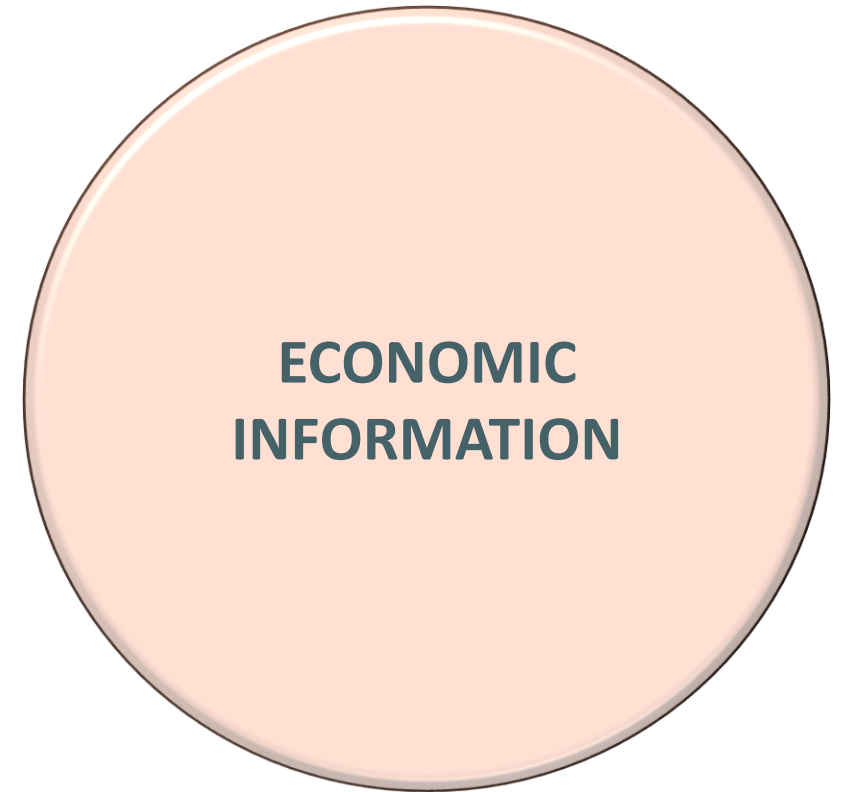
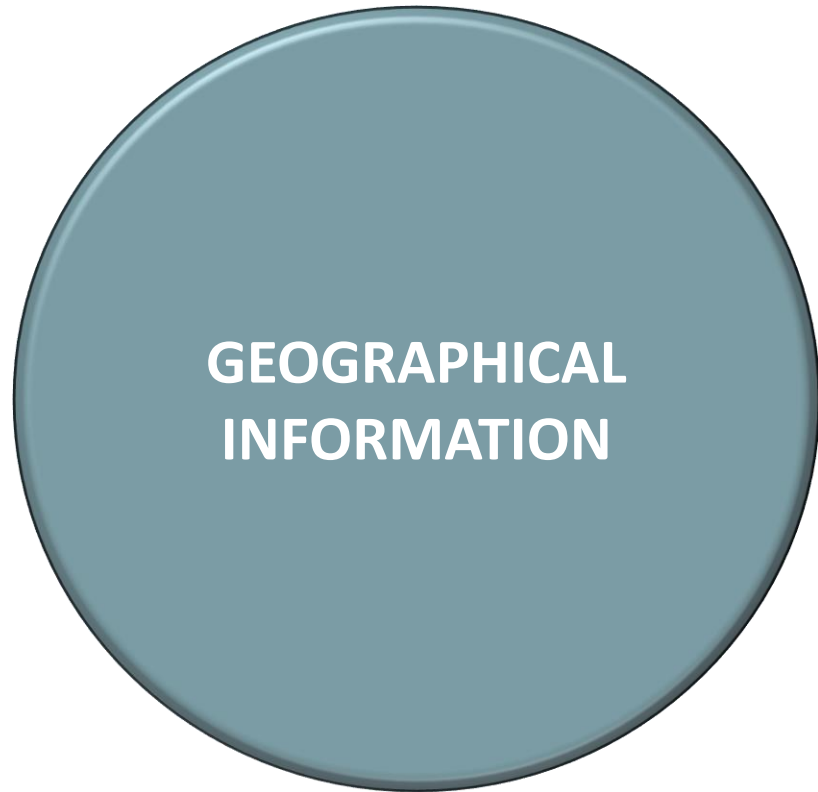
MSP researchers, practitioners and frontrunners sharing cutting-edge findings



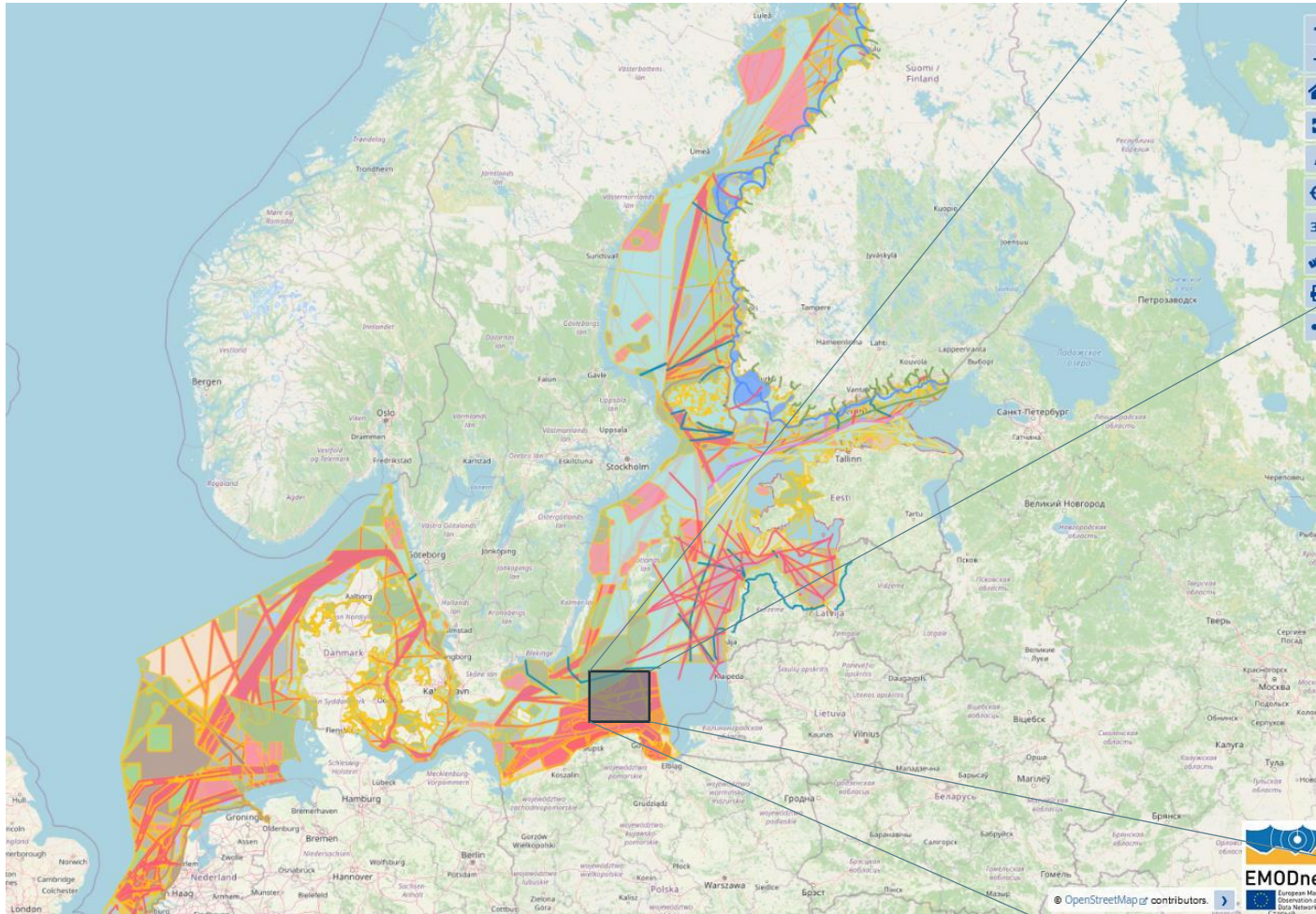


What is next?

Boosting integration

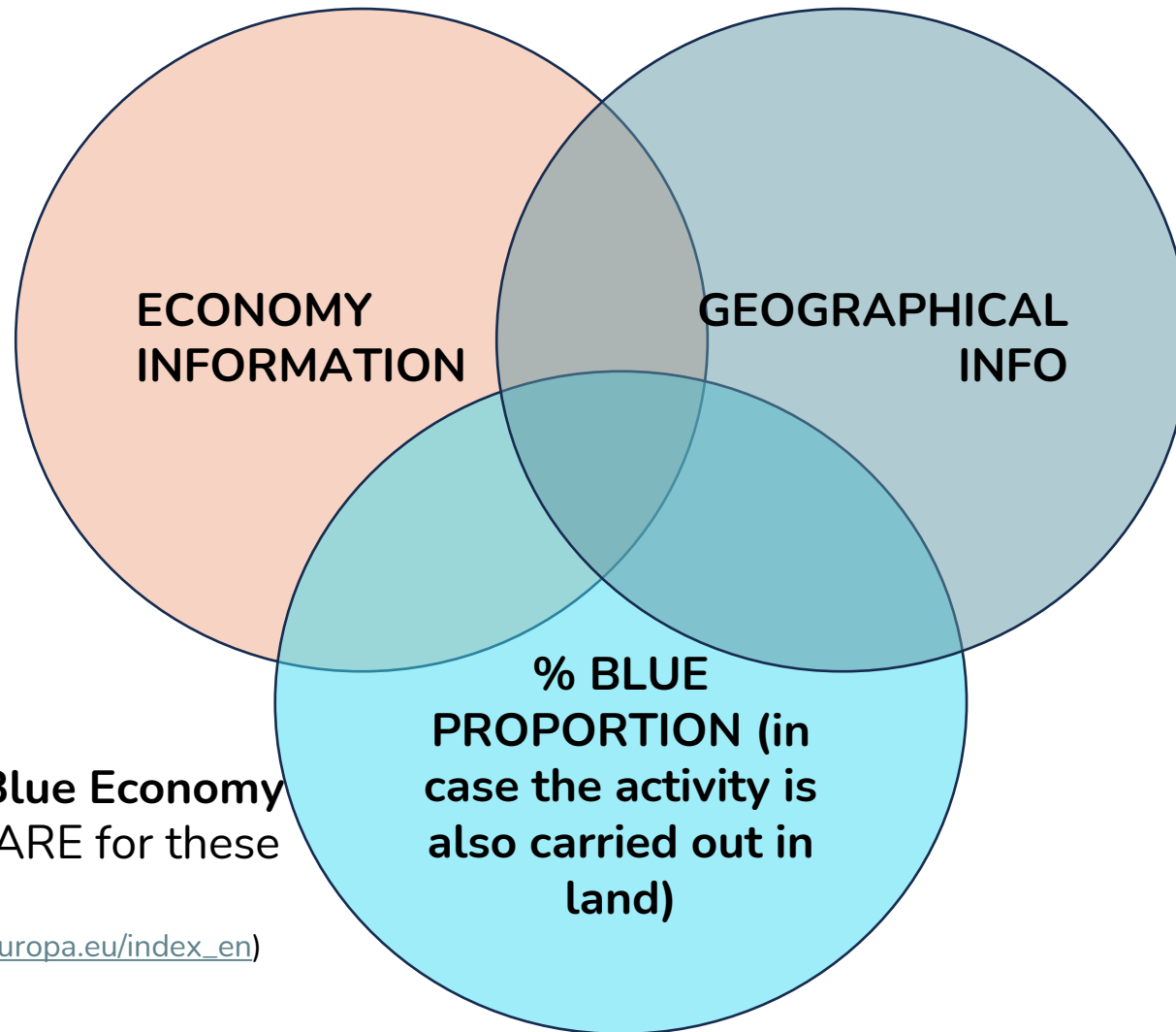


BLUE ECONOMY ↔ MSP



Group	Blue Activity	NACE code	Description
Marine living resources	Primary production	A 03.11	Marine fishing (production)
		A 03.21	Marine aquaculture (production)
	Processing of fish products	C 10.20	Processing and preserving of fish, crustaceans and molluscs
		C 10.41	Manufacture of oils and fats
		C 10.84	Manufacture of condiments and seasonings
		C 10.85	Manufacture of prepared meals and dishes
		C 10.89	Manufacture of other food products n.e.c.
Distribution of fish products	G 46.38	Wholesale of other food, including fish, crustaceans and molluscs	
	G 47.23	Retail sale of fish, crustaceans and molluscs in specialised stores	
	G 47.11	Retail sale in non-specialised stores with food, beverages or tobacco predominating	
Marine non-living resources	Oil and gas	B 06.10	Extraction of crude petroleum
		B 06.20	Extraction of natural gas
	Other minerals	B 09.10	Support activities for petroleum and natural gas extraction
		C 19.20	Manufacture of refined petroleum products
		H 49.50	Transport via pipeline
		B 08.11	Quarrying of ornamental and building stone, limestone, gypsum, chalk and slate
		B 08.12	Operation of gravel and sand pits; mining of clays and kaolin
		B 08.99	Other mining and quarrying n.e.c.
		B 09.90	Support activities for other mining and quarrying
		B 08.93	Extraction of salt
B 07.10	Mining of iron ores		
Marine renewable energy	Offshore wind energy	D 35.11	Production of electricity
		D 35.12	Transmission of electricity
	F 42.22	Construction of utility projects for electricity and telecommunications	
	F 43.21	Electrical installation	
	J 61.10	Wired telecommunications activities	
	Port activities	Cargo and warehousing	H 52.24
Port and water projects		H 52.10	Warehousing and storage
Shipbuilding and repair	Shipbuilding	H 52.22	Service activities incidental to water transportation
		F 42.91	Construction of water projects
	Equipment and machinery	C 30.10	Building of ships and floating structures
		C 30.11	Building of ships and floating structures
		C 30.12	Building of pleasure and sporting boats
		C 33.15	Repair and maintenance of ships and boats
		E 38.31	Dismantling of wrecks
		C 13.92	Manufacture of made-up textile articles, except apparel
		C 13.94	Manufacture of cordage, rope, twine and netting
		C 26.51	Manufacture of instruments and appliances for measuring, testing and navigation
C 28.11	Manufacture of engines and turbines, except aircraft, vehicle and cycle engines		
Maritime transport	Passenger transport	C 25.99	Manufacture of other fabricated metal products
		C 32.30	Manufacture of sports goods
	Freight transport	H 50.10	Sea and coastal passenger water transport
		H 50.30	Inland passenger water transport
		H 50.20	Sea and coastal freight water transport
	Services for transport	H 50.40	Inland freight water transport
		N 77.34	Renting and leasing of water transport equipment
Accommodation	Other	H 52.24	Cargo handling
	Transport	H 52.29	Other transportation support activities
		K 65.12	Non-life insurance
Public activities	Public activities	K 65.20	Reinsurance
		I 55.10	Hotels and similar accommodation
	Coastal tourism	I 55.20	Holiday and other short-stay accommodation
		I 55.30	Camping grounds, recreational vehicle parks and trailer parks
	Other expenditure	I 55.90	Other accommodation
		G 47.30	Retail sale of automotive fuel in specialised stores
	Research and education	H 49.10	Passenger rail transport, interurban
		G 47.60	Retail sale of cultural and recreation goods in specialised stores
	Water treatment	H 49.31	Urban and suburban passenger land transport
		G 47.70	Retail sale of other goods in specialised stores
Public activities	Research and education	H 51.10	Passenger air transport
		M 72.11	Research and experimental development on biotechnology
	Water treatment	M 72.19	Other research and experimental development on natural sciences and engineering
		M 74.90	Other professional, scientific and technical activities n.e.c.
Public activities	Public activities	E 36.00	Water collection, treatment and supply
		E 39.00	Remediation activities and other waste management services

- NACE information at country level (source EUROSTAT)
- Regional/National Statistic Information (case specific)



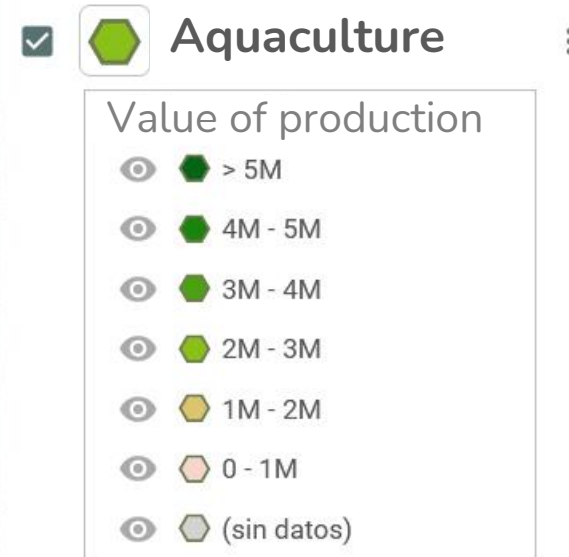
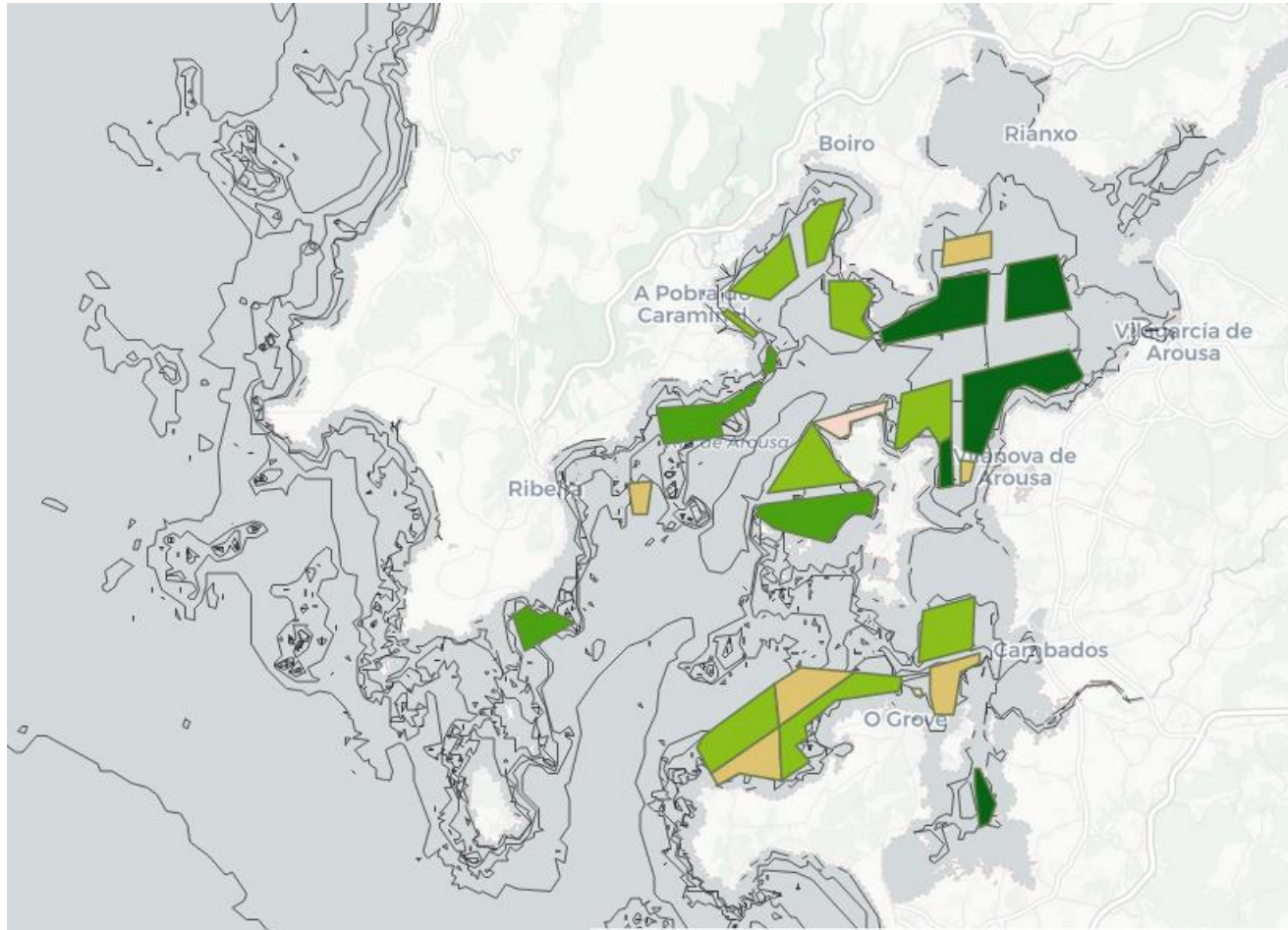
Where the activity happens?

- Activity developed in the MSP area and outside (fishing or transport)
- Disaggregation by sea basin (case of Germany, France and Spain)
- Disaggregation at NUT2 (Galician and West Med cases)

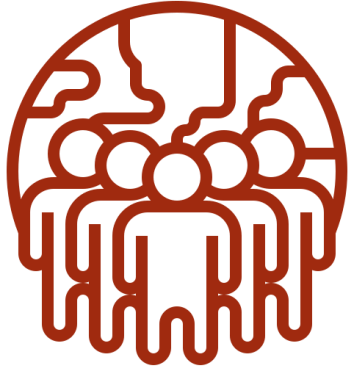
Proxies developed in the **Blue Economy Observatory** of the DG-MARE for these activities

(https://blue-economy-observatory.ec.europa.eu/index_en)

Conceptual output



- Value of production
- Gross Value Added
- Employment



Social

Basic variables:

Employment, salary, gender



Maritime Spatial Planning Data Framework (MSPdF)

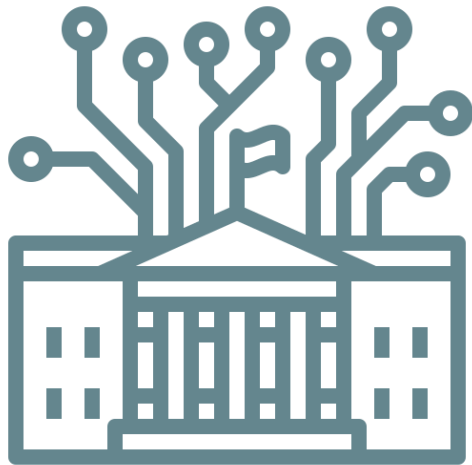
How to structure input data for MSP process,
monitoring & evaluation

Governance



Coordination

Participation



- Practical applications relevant for practitioners, researchers, managers and planners.
- **Technical Expert Group-SE subgroup:**
 - If you are willing to engage in the discussion
 - If you are searching for specific information
 - If you wish to share your experience in integrating the socioeconomic dimension

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THANK YOU

