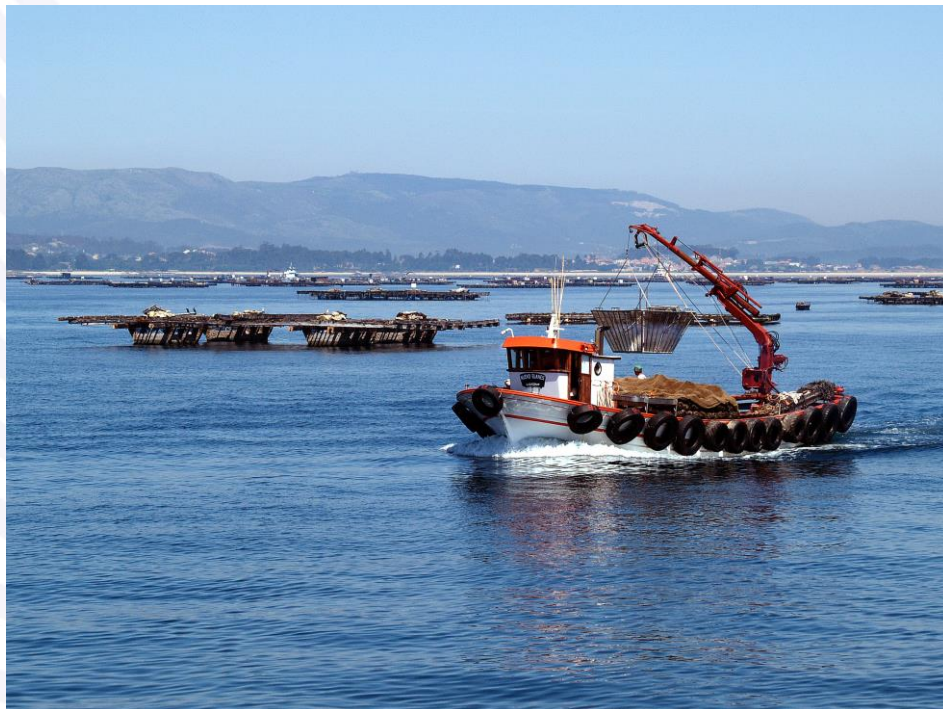




Guidelines for the integration of the Socioeconomic impact of MSP

Technical Expert Group on Data for MSP
(Socioeconomic Subgroup)



©ANTONIO ALCOBENDAS - stock.adobe.com

Santiago, Jose L., Ballesteros, M., Campillos-Llanos, M., Cervera-Núñez, C., LeTissier, M., Menegon, S.

Produced by Technical Expert Group (TEG) on Data for MSP.



EUROPEAN COMMISSION

European Climate, Infrastructure and Environment Executive Agency
Unit D.3.1 — Sustainable Blue Economy

Contact: CINEA EMFAF CONTRACTS

E-mail: cinea-emfaf-contracts@ec.europa.eu

*European Commission
B-1049 Brussels*

Guidelines for the integration of the Socioeconomic impact of MSP

**Technical Expert Group on Data for MSP
(Socioeconomic Subgroup)**

Written by: Santiago¹, Jose L., Ballesteros¹, M., Campillos-Llanos², M., Cervera-Núñez², C., LeTissier³, M., Menegon, S⁴.

Edited by: Chris McDougall, Marceliano Rodríguez

1 Fisheries Socioeconomics Department, Centro Tecnológico del Mar, Fundación CETMAR, Vigo, Galicia, Spain

2 Instituto Español de Oceanografía (IEO). Consejo Superior de Investigaciones Científicas, Madrid, Spain.

3 MaREI / Future Earth Coasts. University College Cork

4 Italian National Research Council | CNR · Institute of Marine Science ISMAR

How to cite this document:

Santiago, Jose L., Ballesteros, M., Campillos-Llanos, M., Cervera-Núñez, C., LeTissier, M., Menegon, S. 2023. Guidelines for the integration of the Socioeconomic impact of MSP. Produced by Technical Expert Group (TEG) on Data for MSP, Socioeconomic Subgroup. Supported by CINEA and DG MARE (EC). 24p. Doi: 10.2926/355892

***EUROPE DIRECT is a service to help you find answers
to your questions about the European Union***

Freephone number (*):
00 800 6 7 8 9 10 11

(*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you)

This document was produced by the [Technical Expert Group \(TEG\) on Data for MSP](#), chaired by Joni Kaitaranta from the Baltic Marine Environment Protection Commission (HELCOM) and Andrej Abramic from the ECOAQUA Institute of the University Las Palmas de Gran Canaria. The TEG is directly supported by CINEA represented by Anja Detant, DG MARE represented by Juan Ronco and the MSP Assistance Mechanism represented by Chris McDougall.

LEGAL NOTICE

This document has been prepared for the European Commission however it reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

More information on the European Union is available on the Internet (<https://ec.europa.eu>).

Luxembourg: Publications Office of the European Union, 2023

PDF	ISBN 978-92-9405-025-0	doi:10.2926/355892	HZ-02-23-151-EN-N
-----	------------------------	--------------------	-------------------

© European Union, 2023

Reproduction is authorised provided the source is acknowledged.

TABLE OF CONTENTS

1.	EXECUTIVE SUMMARY	7
2.	RATIONALE.....	8
3.	LITERATURE REVIEW	10
4.	CURRENT STATUS IN THE EU MARITIME SPATIAL PLANS.....	16
5.	MAIN FINDINGS	20
6.	RECOMMENDATIONS	21
7.	REFERENCES	23

1. EXECUTIVE SUMMARY

Socioeconomic data are an asset to support Maritime Spatial Planning (MSP). Collecting and analysing these data can offer valuable insights into human activities in marine areas and how MSP may affect or be affected by them.

However, the ability to effectively utilise socioeconomic data in MSP has been hampered by three factors:

1. The limited social and economic information available in the plans.
2. The lack of spatially explicit socioeconomic data
3. The challenges to disentangle the marine and the terrestrial component in crucial economic activities.

This report summarises the state-of-the-art and provides recommendations on integrating the socioeconomic dimension into MSP processes.

2. RATIONALE

MSP is a public process of analysing and allocating the spatial and temporal distribution of human activities in the marine biosphere (IOC-UNESCO) to achieve ecological, economic, and social objectives. The social and economic dimensions are at the core of MSP. Understanding and balancing uses, identifying cost and benefits, evaluating trade-offs, identifying the values associated with the marine environment, exploring equity, etc., require socioeconomic data.

The success of MSP relays on the abundance, quality, and accuracy of its data, among other factors. The growing demand for socioeconomic data is driven by the need for evidence-based policy making in a context of blue acceleration. Jouffray et al. (2019) define the concept as “a race among diverse and often competing interests for ocean food, material and space”, with claims happening at an extent, intensity, and diversity without precedents. Understanding the social and economic implications of the human activities developed at sea is as important as identifying trends, tracking changes, and assessing the effectiveness of MSP over time to update plans.

Previous studies¹ have analysed the common gaps in socioeconomic data, while pointing to the need to increase the availability of statistical data, strengthening data accuracy, monitor impacts, and quantify in monetary terms environmental and ecosystem concerns². Methodological approaches were also scant. In fact, in 2020 the *Study on the economic impact of maritime spatial planning*³ was a breakthrough in this field.

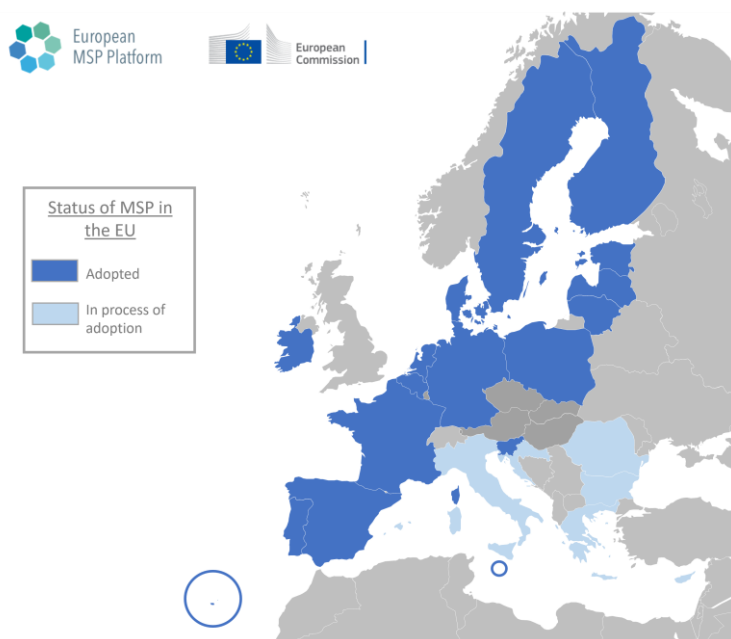
The EU's Maritime Spatial Planning Directive (2014/89/EU) contains 13 references to socio-economy, including those related to the MSP objectives and minimum requirements. The 14 MSP plans, officially approved in compliance with the directive (Figure 1) seem to use socioeconomic data to a limited extent, often because these data, when available, may not have a spatially explicit dimension.

¹ European Commission, MSP data study: evaluation of data and knowledge gaps to implement MSP, Publications Office, 2017, <https://data.europa.eu/doi/10.2826/25289>.

² European Commission, Directorate-General for Maritime Affairs and Fisheries, Joint Research Centre, Addamo, A., Calvo Santos, A., Carvalho, N., et al., The EU blue economy report 2021, Publications Office of the European Union, 2021, <https://data.europa.eu/doi/10.2771/8217>.

³ European Commission, Executive Agency for Small and Medium-sized Enterprises, Study on the economic impact of maritime spatial planning : final report : abridged version, Publications Office, 2020, <https://data.europa.eu/doi/10.2826/892087>

Figure 1. Status of the adoption of MSP Plains in the EU



Source: European MSP Platform, European Commission. Status data available on April 2023.

This guideline is designed to support Members States, practitioners, and researchers to:

- Understand the topic state-of-the-art.
- Optimize the socioeconomic datasets available.
- Explore alternatives for socioeconomic data collection, data integration and data analysis.
- Address or set the baseline to respond to critical questions, in particular, what are the economic and/or social benefits stemming from the implementation of MSPs.

The recommendations build on findings obtained through a triangulation method. This research strategy reinforces the consistency of findings by combining a literature review, a survey and expert knowledge.

3. LITERATURE REVIEW

MSP is carried out in more than half of the world's countries with competences in marine waters (IOC-UNESCO, 2019; M. Ehler, 2021). Understanding how the social and economic aspects have been addressed worldwide is essential to define these guidelines. Hence, the Socioeconomic Data Group of the TEG (TEG-SeD) conducted a review of scientific literature covering data, information, and analyses related to socioeconomics in MSP. In particular, the review aimed to identify a substantial number of peer-reviewed scientific publications that quantify the economic aspects of MSP processes. These include direct and indirect elements that describe, affect, or influence the human activities considered in the plan, as well as any other associated effects related to the management process that can be measured in economic terms (such as administrative burden, permitting/licensing procedures, etc.).

In the design of the literature review, the TEG-SeD considered the interaction between MSP and the set of Blue Economy, Ocean Economy, or similar concepts. The potential gains of using a broad approach are considerable, in terms of quantitative methods. However, the practical application of the findings to inform this MSP guidelines would have diminished. Priority was given to the integration of the spatial and planning/management components vs. overarching approaches; therefore, a narrower scope⁴ has been used and is detailed below.

Likewise, covering the social dimension has associated challenges. MSP social studies are limited and use qualitative methods, often applying ad-hoc data gathering. Insofar the social and economic realms share components and indicators (e.g., employment), the TEG-SeD oriented the literature review to the second.

The systematic review has four phases: identification, screening, eligibility, and inclusion.

1. Identification: using the Scopus⁵ search engine, defining search criteria and developing search equations⁶ to balance broad coverage – not to overlook any relevant publications - and precision to obtain only results (i.e., publications) that are germane to the topic at hand. The keywords selected were: maritime; spatial; planning; marine; ocean; regulations; design; integrated; coastal; zone; economic; economy.

The keywords were combined to build the necessary search equations. The publications resulting from the search should meet three criteria:

- 1) Deal with a maritime dimension (however, if too few results are obtained, one might also look at land planning).

⁴ Nevertheless, the TEG-SeD plans to expand this research in the forthcoming term, addressing also the social component specifically.

⁵ <https://www.scopus.com/search/form.uri?display=basic#basic>

⁶ The search equations are available for consultation through the TEG-SeD.

- 2) Be related to spatial planning.
- 3) Describe and/or analyse economic aspects.

The selection of the right keywords (including synonyms and linguistic variations) to meet each of the three requirements is used to build one or more search equations to query the databases.

A total of 16,565 documents met the first two criteria and 12,728 the three of them. A first set of documents (N1) were identified:

$$N1 = \text{documents in Scopus} = 12,728$$

2. **Screening:** review of author, document title, year of publication, type of publication (article, working paper, conference proceedings, report, etc.), as well as the publication itself (name of the journal, title of the book, publisher, etc.). The screening aims to eliminate: duplication of documents from different databases; documents containing obvious errors in their classification; or irrelevant to the study. For instance, a document may show up in the results twice, first in each format (e.g., working paper) and later published as a scientific article. In this case the earlier version was excluded. After the screening, there were 758 documents.

$$N2 = N1 - \text{excluded results} = 758$$

3. **Eligibility:** assessment of abstracts/summaries of each publication in N2 using pragmatic and quality criteria.

Table 1 – Criteria for inclusion/exclusion of publication for further analysis

Inclusion criteria	
Pragmatic	<ul style="list-style-type: none"> – Documents in English. – From 2000 to 2022. – Documents in which MSP and socioeconomic aspects are a relevant part of the study (e.g., economic benefits, economic impact, economic and econometric methods)
Quality	<ul style="list-style-type: none"> – For indexed articles on scientific journals, we can assume that they have already gone through a rigorous quality filter (peer review) – Check on the objectives of the investigation are well defined; the methodology is well specified and the conclusions/findings reached are clear.

Applying these criteria, a new subset of documents was obtained:

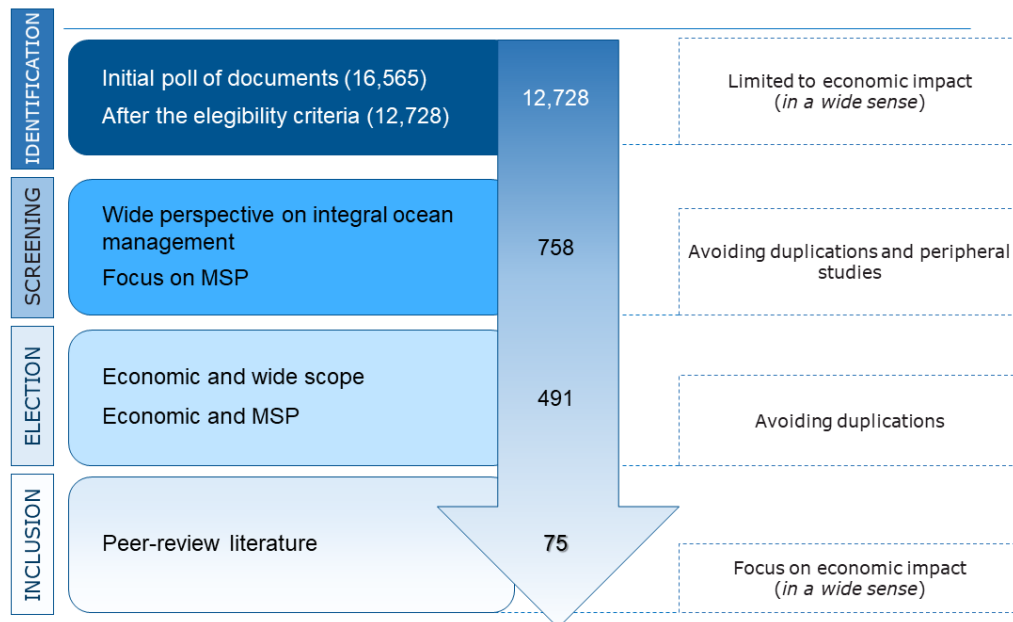
$$N3 = N2 - \text{excluded documents} = 491$$

4. **Inclusion:** the set of documents in N3 is cross-examined with a twofold purpose. First, to eliminate the “false positives”, i.e., documents that fulfilled all the requirements for inclusion but whose content did not correspond to the object of our analysis. Second, to cross-check the bibliographic references of

the revised documents and detect other studies not captured in the initial search.

$$N4 = N3 - \text{non-relevant documents} = 75$$

Figure 2. Literature review: synthesis.



Source: own elaboration.

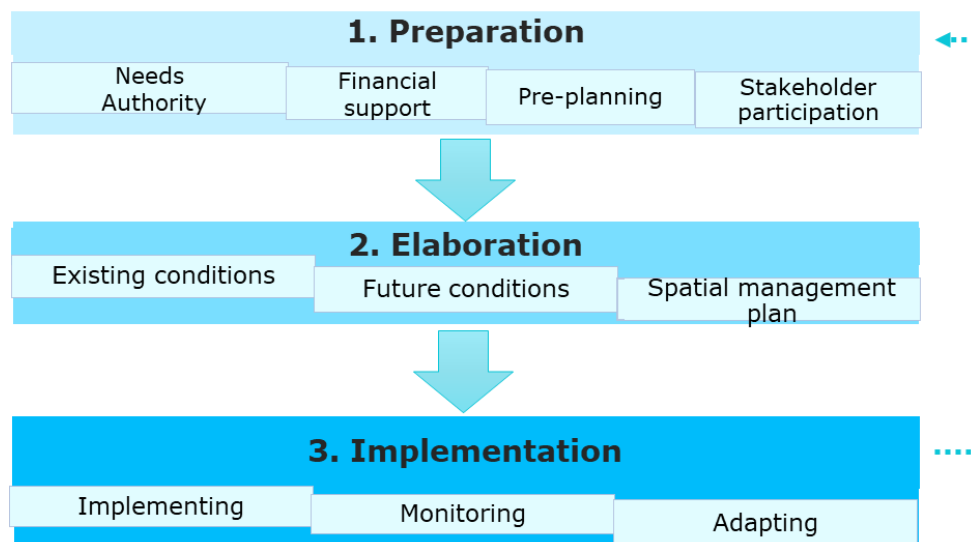
After completing the four stages, the pool of documents (75) was analysed and classified using a sequential approach. MSP is a complex process which can be developed through a series of sequential phases for an adequate implementation. In this sense, the approach developed by Ehler and Douvere in 2009 is widely accepted and includes the following steps for MSP:

1. Identifying need and establishing authority.
2. Obtaining financial support.
3. Organising the process through pre-planning.
4. Organising stakeholder participation.
5. Defining and analysing existing conditions.
6. Defining and analysing future conditions.
7. Preparing and approving the spatial management plan.
8. Implementing and enforcing the spatial management plan.
9. Monitoring and evaluating performance.
10. Adapting the marine spatial management process.

This approach has been adopted in the "Guide to monitoring, evaluation and revision of Maritime Spatial Plans" released by the European Commission (see section 4 for details).

Throughout all these steps there are elements related or linked to socio-economic monitoring, quantification or assessment, critical topics of our review. For simplification, the 10 steps have been grouped into 3 major stages and the reviewed literature organized accordingly (see Figure 3 and Figure 7).

Figure 3 - Sequences in the Marine Spatial Planning Process



Source: own elaboration based on European Commission, 2017.

Preparation (MSP steps 1 to 4) includes aspects related to: (i) the planners⁷ needs (e.g. setting socioeconomic objectives, public budget allocations, income associated to human activities in the sea); (ii) the required financial support or sources of funding; (iii) pre-planning (e.g. risk assessment, hiring personnel, knock-on/ripple effects); the identification and participation of the key stakeholders (e.g., governmental organizations, industry and civil society organizations).

Nearly 30% of the literature reviewed can be grouped in this stage. The main contributions focus on describing the human activities without the required considerations of being involved in a MSP process. The studies analyse a wide typology of sectors, highlighting the fisheries and aquaculture sectors as the one with more references.

Elaboration (MSP steps 5 to 7) covers aspects related to the existing and future conditions. This embraces the current state of the marine and coastal environment (relevant biological and ecological areas), and the human activities developed there but also any estimation of change linked to the MSP process.

The elaboration phase encompasses the bulk of the literature (53%). The studies describe and analyse in socioeconomic terms the distribution and spatial and temporal density of human activities in the marine area, as well as their implications on and connections with coastal communities. Additionally, spatial analysis supports the identification of conflicts and synergies.

⁷ The organisation or institution capable of implementing the MSP.

Implementation (MSP steps 8 to 10) entails works related to:

- (i) Implementation of the MSP (e.g., costs and benefits linked to the compliance services implemented, linked to mediation and negotiations with the agents involved, linked to the legal actions necessary to enforce compliance, etc.).
- (ii) The monitoring of the plan, which includes the quantification of socioeconomic indicators for the results of the plan but for the plan itself.
- (iii) The review and adaptation for next editions of the MSP pan, considering the lessons learnt and the results obtained after the assessment, the selected goals, objectives, desired outputs, and management strategies that could be modified.

Due to the status of most plans, the literature review shows a lower number of studies (19%) focused on monitoring the socioeconomic aspects linked to the plan and quantifying its socioeconomic effects on the marine sectors but also in other direct and indirect related sectors.

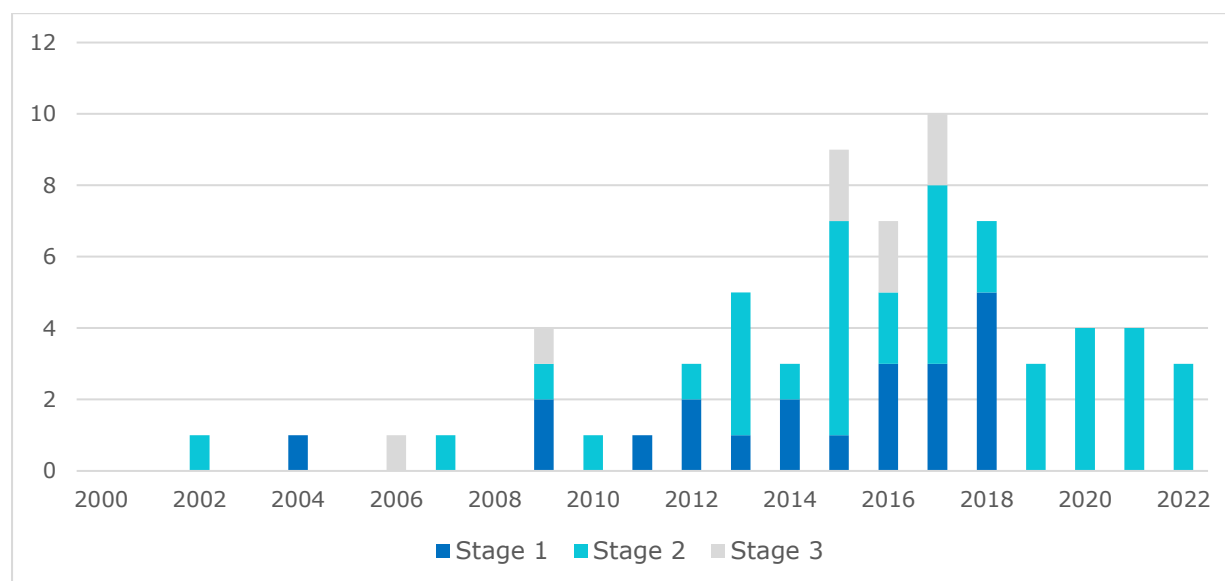
Figure 4. Literature review: studies by MSP phase (in percentage over total)

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%	

Source: own elaboration.

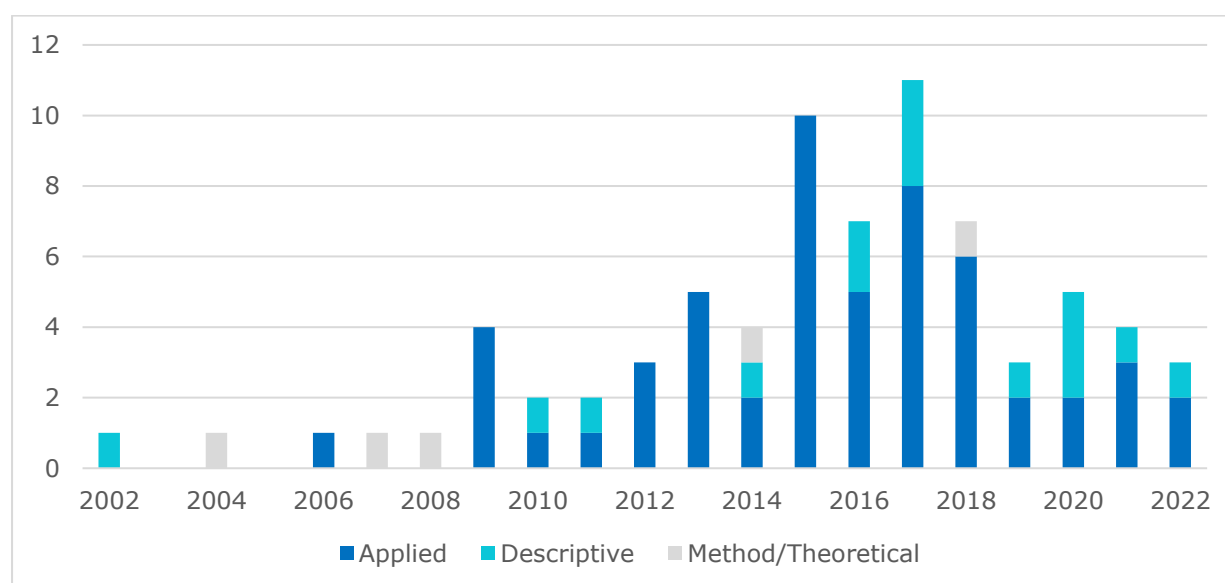
Overall, the literature review shows a peak of relevant studies in the period 2015-2019 (see Figure 5) and the prevalence of applied and descriptive approaches over theoretical or methodological developments (see Figure 6).

Figure 5. Literature review: frequency of publications by MSP stage (2000-2012; in number)



Source: own elaboration.

Figure 6. Literature review: frequency of publications by type (2000-2012; in number)



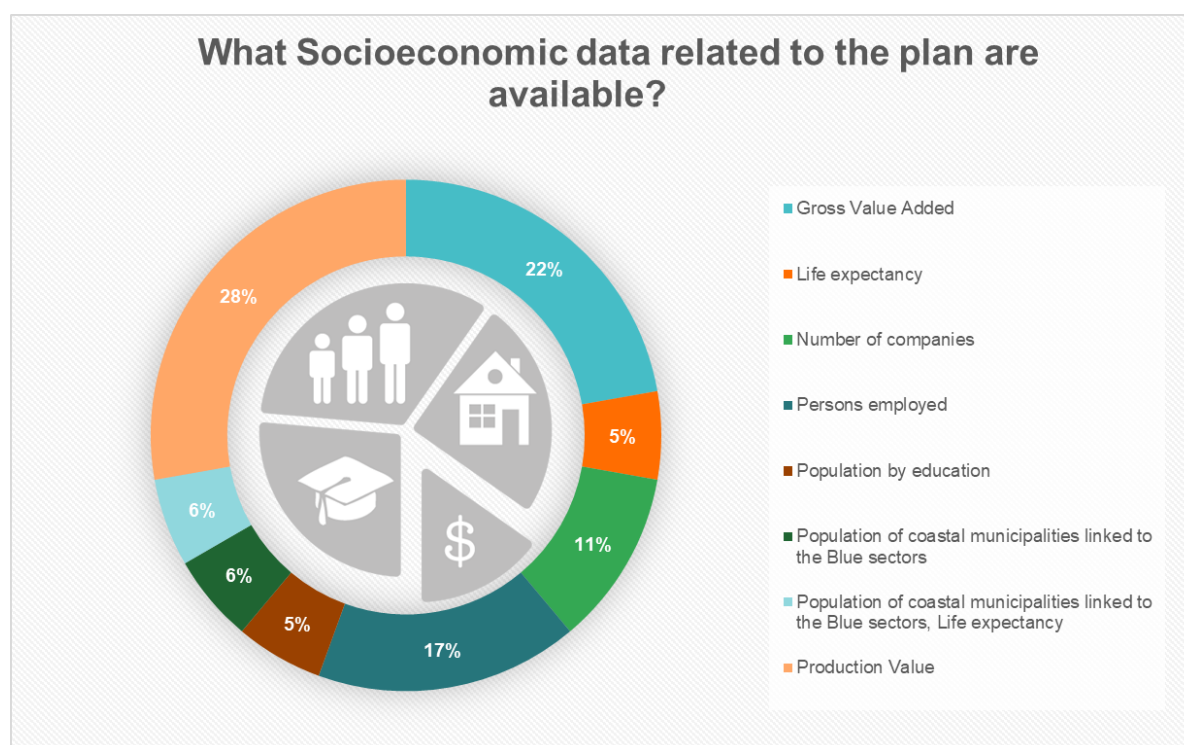
Source: own elaboration.

4. CURRENT STATUS IN THE EU MARITIME SPATIAL PLANS

In general, the socioeconomic data used in MSP are mostly missing or limited to descriptive information. To gather evidence of the status in the EU Member States, the TEG-SeD designed an online survey. The survey was designed to identify what type of socioeconomic data are being gathered as part of the MSP processes, how the marine and maritime activities are described and how the socioeconomic data are processed to support decision-making. Using a cost-effectiveness approach, the members of the TEG were invited to provide their input. While the response ratio to the survey has been limited (5 responses from different MS out of 12 possible), the results are useful as indicative rather than comprehensive or statistically significant.

The responses cover all planning phases: 3 plans officially approved, 1 implemented and 1 in elaboration (defining and analysing future conditions). Remarkably, only a few plans include basic descriptors of the socioeconomic activity (see Figure 7), mainly production value (28%), gross added value (22%), persons employed (17%) and number of companies (11%). Social descriptors are mostly absent (e.g., population by education 5% or life expectancy 5%).

Figure 7. Type of socioeconomic data available related to the plans.



Source: TEG Socioeconomic Group Survey. n=5 (PL, SE, IE, FR, ES).

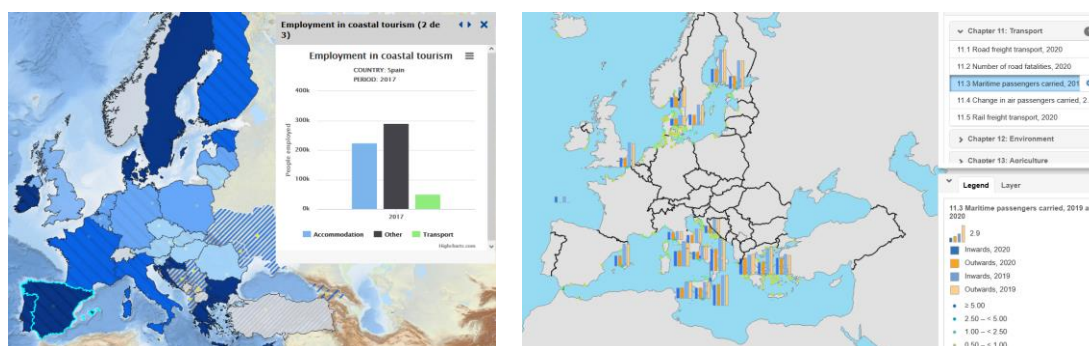
Other socioeconomic indicators available are demographic mobility, rates by sex and coastal regions of persons employed, housing price and land use. Some respondents affirm that the information present is sector dependent. To gather a

better understanding of this relationship, the plans covered by the survey included transport, pipelines and cables, mining and disposal, recreational sectors, fisheries, aquaculture, environmental protected areas, marine energy, and defence. Additional sectors are research and cultural heritage (80% of the plans), coastal tourism and marine surveillance (60%) and cruises (40%).

Regardless of the type of data available, none of them have been integrated in the visualization tools for MSP. The survey does not provide evidence on the reasons behind that lack of integration. Currently, the European Commission has visualization tools that showcase the utility and feasibility of mapping marine and maritime socioeconomic data (e.g., EMODnet). Namely, the **European Atlas of the Sea** shows blue indicators: employment in coastal tourism, marine extraction of minerals, oil and gas, marine fisheries, aquaculture and processing, ports, warehousing and water projects, shipbuilding, and repair. The maps display the percentage of people working in the blue economy compared to the overall working population, with information regarding the employment in each sector and the evolution of the overall blue economy since 2009 at country level.

Likewise, the **Eurostat Statistical Atlas** is an interactive map viewer that combines geographical layers with statistical maps. The disaggregation level⁸ depends on the specific data set as well as the length of the time series: for the Eurostat regional yearbook data sets information is available since 2013.

Figure 8. Visualization of socioeconomic data. Examples from the European Commission tools.



Source: European Atlas of the Seas⁹ (DG-MARE) and Eurostat Statistical Atlas¹⁰.

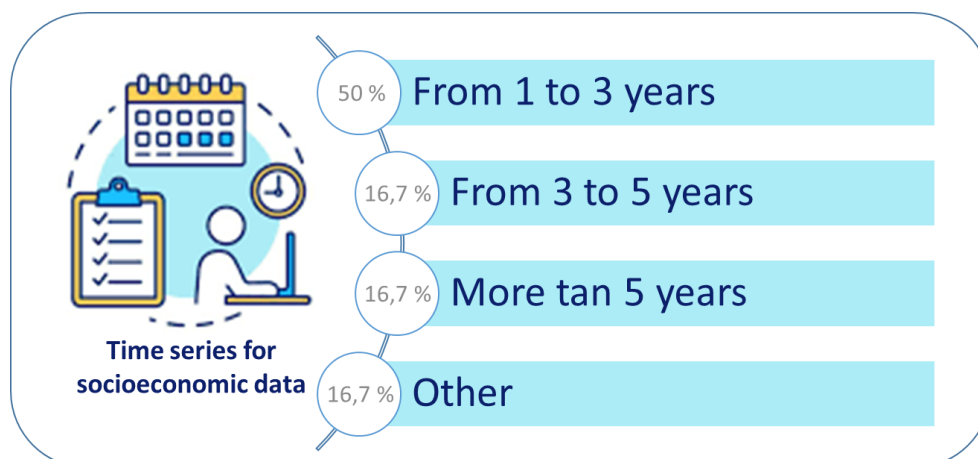
In comparison, the survey results show that the plans with socioeconomic data use mostly short time series (see figure 3). This may constraint the analytical capabilities, in particular to assess social and economic trends, changes and impacts at an accurate geographical level.

⁸ The Eurostat nomenclature of territorial units for statistics (NUTS) classification, is a hierarchical system for dividing up the economic territory of the EU, among other purposes for the socio-economic analysis of the regions: NUTS 1 Major socioeconomic regions, NUTS2 Basic regions for the application of regional policies.

⁹ https://emodnet.ec.europa.eu/en/eu_atlas_of_the_seas

¹⁰ <https://ec.europa.eu/eurostat/web/gisco/gisco-activities/statistical-atlas>

Figure 9. Time series for the socioeconomic data of the MSPs



Source: TEG Socioeconomic Group Survey. n=5 (PL, SE, IE, FR, ES).

Understanding the purpose for socioeconomic data collection in MSP provides insights to recommend further actions. All plans covered by the survey have collected these data sets to describe the different economic sectors in the marine environment. The descriptive approach benefits from making use of the information already available. However, evidence from the literature show that other analytical efforts based on social and economic methods (e.g., environmental economic accounting or social and economic impact assessments) are generally data intensive. In fact, only the Swedish MSP has collected socioeconomic data to carry out analysis based on economic approaches as well as to plan for future uses and allocation of the marine space.

In addition, integrating different types of data (e.g., ecological, biological, economic and social) is essential to explore the interrelations and interdependencies across dimensions. A comprehensive MSP is grounded in understanding how the marine and coastal ecosystems function and how humans use and value them, identifying and assessing spatial linkages. While several spatial analysis methods have been used to integrate social information with ecological information for MSP planning purposes (see Noble et al., 2019), this remains as a major challenge. Out of the five plans included in the survey, the French and the Swedish have integrated the socioeconomic data with environmental and biological data.

Consequently with the findings, all the countries included in the survey foresee actions to improve socioeconomic data collection (50%), data analysis (37%) or others (13%). This guideline may contribute to support them.

In the latest years there has been substantive advances in the MSP tools. It should be noted that the type and attributes of the socioeconomic data available shape the capability to use existing tools up to its potential. For instance, the European Commission has released a "Guide to monitoring, evaluation and revision of

Maritime Spatial Plans”¹¹ to support MSs. The guide has been designed to identify minimum requirements for assessment of MSP, enabling the inclusion of national objectives and supporting the development of relevant indicators and methods for evaluation. Using an online toolbox is possible to set socioeconomic targets (e.g., economically productive activities, job creation, improve income for local communities, ensure equitable development, etc.) and indicators (Gross Value Added, Volume of production, average income at local level, etc.). While the architecture is ready to be used, the proper functioning depends on the quality, standardization, and harmonization of data. From the survey findings it seems that there is insufficient data to achieve the expected output in the MSPs covered.

¹¹ The tool is the output of the study Systems and tools for assessment, monitoring and revision of maritime spatial plans, including in the context of the implementation of Directive 2014/89/EU and is available online at (<https://maritime-spatial-planning.ec.europa.eu/msp-toolkit>).

5. MAIN FINDINGS

Combining the findings from the literature review, the online survey, and the expert knowledge of the TEG-SeD the following evidence has been generated:

- The socioeconomic impact of MSP has received limited attention in the scientific literature. The studies available are focused on the short-term and descriptive analysis of economic (GVA and production value) and socioeconomic (employment). The analysis may address overlapping areas but studies on how to cope with overlapping have not been found.
- Methodological developments are scarce.
- The approval of the EU's MSP Directive and the presentation of the Plans by MSs seems to have prompted an increase in the number of publications.
- Geographically, EU and China stand out for the number of socioeconomic analysis published in peer-review articles.
- According to the survey, MSs use basic socioeconomic indicators of the maritime activities for descriptive purposes, covering mostly short-term periods.
- Further actions are expected to improve socioeconomic data collection and (socio)economic analysis.
- There is a mismatch between the stated need and relevance of the socioeconomic data and the capability to use them at the service of MSP.

6. RECOMMENDATIONS

The human dimension needs to be systematically integrated into data collection and ocean data systems. The MSP Plans are a powerful tool to achieve desired societal and economic objectives from the sustainable use of marine space. To do so, the TEG-SeD recommends:

1. To **make use of the socioeconomic data already available** through national and European Statistical Institutes (Eurostat). These include the systematic processes of official data collection (e.g. structural business statistics (sbs) or production of manufactured goods (prodcom)). Social scientists are well trained in the exploitation of those data sets. Anecdotal evidence pinpoints that they might not be fully involved in supporting official MSP planning efforts.

When socioeconomic spatially explicit data are not available, spatially explicit information based on expert knowledge (interviews, expert knowledge) may be useful.

2. To **search for synergies with other initiatives**. In particular, the Marine Strategy Framework Directive (MSFD) has a socioeconomic group¹² dealing with similar areas and integration challenges.
3. To advance towards an **accurate geographical definition** of the activities developed in the EU's Sustainable Blue Economy¹³. A non-exhaustive list of actions include:
 - a. To design and implement a geographical attribute to the Blue Indicators¹⁴.
 - b. To expand the current economic statistics, mainly in the structural business statistics¹⁵, to include references on the areas where the industrial activities are developed.
 - c. To include these requirements in the administrative process to get licenses and permissions related to the MSP approved.
 - d. To develop proxies to disaggregate economic activities at sea-basin level.
4. Address **specific challenges through a case study/pilot study approach**. Conceptual, methodological and technological issues could be explored using case and pilot studies to assess the feasibility of refining data collection and implementing novel methods:

¹² Working Group Programmes of Measures/Economic & Social Analysis

¹³ https://oceans-and-fisheries.ec.europa.eu/ocean/blue-economy/sustainable-blue-economy_en

¹⁴ https://blue-economy-observatory.ec.europa.eu/blue-economy-indicators_en

¹⁵ <https://ec.europa.eu/eurostat/web/structural-business-statistics>

- 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:
 - REMAP Reviewing and Evaluating the Monitoring and Assessment of Maritime Spatial Planning
 - MSP-GREEN Maritime Spatial Planning as enabler of the European Green Deal.
 - REGINA-MSP. Regions to boost National Maritime Spatial Planning.
 - MSPOR. Advancing Maritime Spatial Planning in Outermost Regions
 - MED-MSP & CoP Mediterranean Maritime Spatial Planning Community of Practice.

Initially the TEG-SeD planned to address integration and visualization of the socioeconomic data. The analysis of the state-of-the-art, however, prompted the effort to focus on the first as a pre-condition to reflect on the second. The Subgroup proposes to re-schedule the research and recommendations associated with visualization of socioeconomic data for the next term.

7. REFERENCES

Ehler, N. (2021) Two decades of progress in Marine Spatial Planning, Marine Policy 132: 104134. <https://doi.org/10.1016/j.marpol.2020.104134>.

European Commission (2017) Study on the establishment of a framework for processing and analysing of maritime economic data in Europe: final report. EASME. Publications Office, <https://data.europa.eu/doi/10.2826/97472>

IOC-UNESCO Marine Spatial Planning website Status of MSP (2019) Online at http://msp.ioc-unesco.org/world-applications/status_of_msp/

Jouffray, J., Blasiak, R., Norström, A.V., Österblom, H., Nyström, M. (2020), The Blue Acceleration: The Trajectory of Human Expansion into the Ocean. One Earth, 2 (1): 43-54. <https://doi.org/10.1016/j.oneear.2019.12.016>

Noble, M. M., Harasti, D., Pittock, J., & Doran, B. (2019). Linking the social to the ecological using GIS methods in marine spatial planning and management to support resilience: a review. Marine Policy, 108: 103657. <https://doi.org/10.1016/j.marpol.2019.103657>

Stamoulis, K.A., and Delevaux, J.M. (2015) Data Requirements and Tools to Operationalize Marine Spatial Planning in the United States. Ocean and Coastal Management 116: 214–223. <https://doi.org/10.1016/j.ocecoaman.2015.07.011>

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct information centres. You can find the address of the centre nearest you at:

https://europa.eu/european-union/contact_en

On the phone or by email

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696, or
- by email via: https://europa.eu/european-union/contact_en

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: https://europa.eu/european-union/index_en

EU publications

You can download or order free and priced EU publications from:

<https://publications.europa.eu/en/publications>

Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see https://europa.eu/european-union/contact_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1952 in all the official language versions, go to EUR-Lex at: <http://eur-lex.europa.eu>

Open data from the EU

The EU Open Data Portal (<http://data.europa.eu/euodp/en>) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial and non-commercial purposes.

