

## Technical Expert Group - MSP Data

Workshop – 05<sup>th</sup> of December 2022

Meeting via WEBEX

All presentations given during the meeting will be available on the [European MSP Platform](#).

### 1. Introduction by the TEG Co-chairs

**Andrej Abramic & Joni Kaitaranta** welcomed everyone and confirmed that the final outputs from the TEG subgroups are currently being finalised. During 2022, three meetings were held, the first in March in an online format, a physical/hybrid one in Las Palmas in July and this final one online in December. Over the course of the year the TEG supported the facilitation of MSP Output data collection, with seven MS Plans data currently available in a harmonized way online and some Member States applying the proposed data model in their national infrastructure. The TEG also supported the eMSP project through its support to the community of practice on data sharing. Finally, the TEG supported international cooperation in opening up to non-EU countries for cooperation, such as for Marine Functional zoning / MSP and data support in China and in the Mediterranean. In the final session, Anja Detant will provide information on future support to the TEG.

### 2. Yolanda Sagarminaga (AZTI): Presentation on spatial overlap between Human activities and seabed habitats in European Seas: Insights into EMODnet's data for management purposes.

The study reviewed where datasets from the MSFD Marine Reporting Units (MRUs) and EMODnet Human Activities intersect. Following some geoprocessing of these datasets to obtain a pan-European information layer, the study found that, there have been 8,794 records of human activities over areas with no seabed habitat information. The highest number of records (>15,000) were located on circalittoral sand or circalittoral muddy sand, the deep circalittoral sand, deep sea mud and infralittoral fine sand. Aggregate and hydrocarbon extraction were the activities that showed the highest number of overlaps with habitats. Relevant vessel density values were found over Posidonia meadows, mainly from pleasure crafts and sailing boats.

Results evidence the value in having datasets available at pan-European level to support assessment and management. However, datasets in their current form need heavy processing before they can be intersected and used. Information gaps remain. A detailed thematic and spatial gap analysis would be useful to assign uncertainties and to avoid distorted interpretation due to absence or information scarcity. The definition and implementation of efficient and coherent marine data management at the European level remains unresolved. The EMODnet portal's potential to address this is high, especially for studies going beyond national jurisdiction and addressing current challenges like Ecosystem based MSP, assessment and adoption of conservation measures, and mapping and assessment of ecosystem services.

#### Questions & Answers:

**Q: Anja Detant (CINEA):** Asks for advice for policy.

**A: Yolanda Sagarminaga (AZTI):** Underlines that data scarcity and availability is a common problem to support policy advice.

**Q: Anja Detant (CINEA):** Asks for the links to publications to be shared with colleagues.

**Q: Juan Ronco (DG MARE):** Asks if the work is relevant to assess cumulative pressures in the marine environment (e.g., possible effects of leisure activities on Posidonia meadows).

**A: Yolanda Sagarminaga (AZTI):** This is a very good starting point to assess pressures and cumulative impacts, but more information is required. We need to have the quantitative figures of these activities.

**Q: Amedeo Fadini (CNR/IUAV):** Asks if these data should be integrated in bigger models such as EMODNET and could provide interesting inputs of the time dimension. Do you have some advice on the workflow and use of data, regarding geospatial reference systems and geoprocessing?

**A: Yolanda Sagarminaga (AZTI):** Data can be used to produce maps, identify different areas, and help determine the status of an area. Having clean data sets is therefore crucial. Data need to be harmonized to support the development of models that avoid duplication of geoprocessing tasks and produce maps coming from the same datasets.

**Joni Kaitaranta (HELCOM):** The best way forward is to request the data from the countries and compile it in a regular manner. Data gaps exist at the National level, as not all data sets are stored in the same format, and not all data can be shared publicly, for different reasons. The data requirement for cumulative pressure assessment is quite high compared to data availability at the national level. There is room for improvement in data availability.

**Andrej Abramic:** Merging 40 human activities into one data layer is very interesting for the spatial characterisation of environmental status.

**3. Joana Akrofi (UNEP) – The Global Environment Monitoring System for the Ocean and Coasts (GEMS Ocean) Programme – Harnessing multi-stakeholder partnership to transform data into action**

GEMS Ocean’s vision is to provide a global environment monitoring system providing relevant and easily accessible ocean and coastal data, analysis, and information, guiding actions to protect and sustainably use marine and coastal resources. To achieve this, the programme seeks to co-design and convene a global Community of Practice across experts and society at large, with a focus on three problems:

1. There are many observation and monitoring systems, but they are rather fragmented. Our goal is to promote and convene a transdisciplinary partnership approach focusing on sustainable coastal use and ecosystem health.
2. Many Small Island Developing States (SIDS) and developing Countries do not have the capacity and resources to undertake effective monitoring. Our goal is to strengthen capacity development on key aspects of ocean monitoring, especially in SIDS and Developing countries.
3. There is a lot of information and data already, but it is not easily accessible nor interpretable by non-experts. Our goal is to provide access to quality assured, interoperable, open environmental data, analysis and sets of indicators for governments and stakeholders

The programme has set up a Data System called “MyOcean Tool” which can display sea water temperature, chlorophyll concentration, combine layers and values, and can provide downloadable data. The programme’s focus is to work with communities and conduct capacity building activities, to connect with regional seas, LMEs, and MS, develop a matchmaking mechanism and user-centric approach. All of this based on a demand driven approach, a dynamic partnership model and a ground truthing of data. The delivery system is based on three steps: (1) Data acquisition (inform). (2) Data uptake (inspire) through a regional bottom-up approach. (3) Data Scaling to catalyse the development of solutions and products.

**Questions & Answers:**

**Q: Juan Ronco (DG MARE):** Our action for Data for MSP: this activity is a small step to share the expertise and knowledge that exists in EU to the global community. The question is how do we bring this forward? This is already a first step to implement our MSP roadmap.

**Q: Andrej Abramic:** Very interesting. What is the strategy to integrate fragmented monitoring systems? What is the strategy to integrate all these systems and harmonize data?

**A: Joana Akrofi (UNEP):** It is important to not duplicate anything already in existence. Hence, when running partnerships, we do not duplicate any work done. However, we want to make sure to run a demand driven service where the user clearly expresses what the needs are. With that, we can provide them with a fit for purpose service. With this, we can work at scale at community and regional level and close to the links of the users. We are making good use of UNEP's mandate in the science-policy interface. We want to bring all these information upstream before bringing it downstream, supporting policy and decision making.

#### **4. Joni Kaitaranta-HELCOM: Implementing the proposed MSP output data sharing - data flows and governance**

There is currently no MSP output data reporting requirement to EU MS. The TEG proposal on sharing MSP output data provides detailed technical alternatives for how to harmonize data, but less details on the data sharing process and data flows. Sharing the harmonized data would increase transparency of the MSP process, facilitating reuse, and avoiding duplication of effort in relation to data collection and analyses at the national, regional, and European level. According to the TEG proposal, MSP output data can be shared through different mechanisms, that can enable use by EMODnet human activities:

1. Sharing MSP plans within the already operative MS national spatial data infrastructure, making plans visible through geoportals, searchable by metadata catalogues and downloadable by network services following INSPIRE 2007/2/EC Directive principles
2. Sharing MS MSP plans with Regional Sea Convention Spatial data infrastructure, making plans visible through geoportals, searchable by metadata catalogues and downloadable by network services/links to MS national portals, as implemented by HELCOM
3. Including details on MSP shared "output data" within the European MSP platform, updating the national page
4. Using the established EMODnet data flow mechanism. The EMODnet Data Ingestion Portal streamlines data ingestion process so that data holders from public and private sectors that are not yet connect to the existing marine data management infrastructures or who do not share data on a regular basis, can easily release their data for safekeeping and subsequent distribution through EMODnet.

The four options for making data available will require further discussion on the data flow and governance, e.g. on following topics:

1. Should the process be pull or push? i.e., should MS report or should EMODnet actively collect this data from available sources?
2. Disclaimer issue mentioned in TEG proposal need to be addressed for each MS separately
3. Establishing a process for fixing errors, quality control

There are currently 7 MS plans on EMODNET, on which the data sharing can be further refined.

#### **5. Jose L. Santiago – EMODnet: Implementing the proposed MSP output data-sharing – data flows and governance**

We supported three countries in implementing best practice in adapting data (DK, IT, FR), which facilitates information sharing and upload to the EMODnet portal. We supported a fluent communication to report feedback on the output (PL, DE). However, this is a manual process based on user and data providers' feedback, and there is room for improvement, for example, by adding a disclaimer type attribute when introducing original data for certain geographic elements (MSP and or MSP zoning element).

Based on our experience, we present the following recommendations to be followed by data providers:

- Use maps and GIS data for the MSP plan instead of a compilation of related maps.
- Plans inside the plans: “vocation areas” used as large geographic zones including areas with specific uses.
- Vertical distribution attribute is usually undescribed
- Filtering by Sea Use function
- Expand the current sea uses to avoid “Other/Miscellaneous”.

### Questions & Answers:

**Stefano Menegon (CNR-ISMAR):** Interesting process, this is a topic we often discuss in Italy. Do you aim to use single layers? We have implemented some mechanisms towards the push approach (i.e. the MS takes the initiative to submit data, rather than expect EMODnet to extract the data from the relevant source). There are many choices and aspects we must decide. We adopted a multi-use approach in our planning; hence we need to consider these aspects. We need more knowledge on the EMODnet marine system. It will make things simpler for us.

**Amedeo Fadini (CNR-ISMAR):** In the IT data model, our information is now published for public consultation, unfortunately we do not go into as much detail as EMODnet, as it would be relevant for renewable vs non-renewable energy, for example. The push approach could support the improvement of the internal coherence of MSP at the national level. It is interesting regarding the national models chosen to develop clarity with the EMODnet data models. We will need some assistance to share national MSP data.

**Jose L. Santiago:** In some cases, we only received PDFs, so if we have data, it is already a good thing.

**Q: Juan Ronco (DG MARE):** Very interesting topic, looking from the angle of governance, in DG MARE we are reflecting on the work that can be done to improve the implementation of the Directive. For the moment, data could be one of the areas of improvement. What do you mean Jose by vertical data? EC must think on how to improve the governance on the data acquisition process. Some projects are starting on the mapping of the EU waters. We could develop incentives to make the data acquisition process more efficient. Could you please make some recommendation about your preferred approach to governance? We would appreciate your guidance on this.

**Jose L. Santiago:** Vertical data refers to data linked to depth and water column characteristics.

**Andrew Conway (Marine Institute):** We must stay on top of the data acquisition process.

**Joni Kaitaranta (HELCOM):** The push process gives more control to MS on the data interpretation.

**Anja Detant (CINEA):** We could raise the recommendation questions during the next MSEG in spring. We could invite one or two of the MS that have gone through the process of data sharing, so they can explain which processes can work and what support can be provided? Bringing this to the MSEG could be really valuable.

**Yolanda Sagarminaga (AZTI):** I have a comment, instead of being an intermediate actor on the data users, data producers could have a leading role in ensuring the quality of their data. From a technical point of view, this would be a more practical solution.

**Joni Kaitaranta (HELCOM):** I agree, but there can be challenges due to MS internal capacity.

**Jose L. Santiago:** A combination of both a push and pull approach is useful for us, but it is a decision to be taken by the MS. We have some examples on this issue, such as bird corridors and windfarms in Germany. EMODnet categorize this as natural protection areas within windfarms, which clashes with the German classification. So, this type of decision must be taken by the national governments. However, this type of dialogue improves the data governance.

**Joni Kaitaranta (HELCOM):** This discussion needs to continue in following TEG meetings.

#### **6. Stefano Menegon (CNR-ISMAR) - MSFD & MSP Data Management**

A framework analysis and online survey have been undertaken by the TEG. The survey closes at the end of December and includes topics such as the MSFD and MSP interaction, spatial coherence, MSFD terminology, and others. To date, responses have been collected from 13 countries: Croatia, Denmark, Estonia, Finland, France, Italy, Ireland, Latvia, Netherlands, Poland, Romania, Spain, Sweden.

The preliminary results suggest the following:

- There is a medium level of data integration. Stage ‘monitoring’ has not yet been reached for the majority of countries
- MSFD Data are mainly quantitative
- Spatial elements scale mismatch: MSP is more spatially explicit, while MSFD is primarily perceived as a strategic planning tool.
- Background coherence is important to facilitate overall coherence of data.
- Data sharing is important in all stage of MSP plans
- Respondents recognized potential to create better correlated shared-data-infrastructure.

A report will be produced including the survey results, analysis, conclusions and recommendations.

#### **7. Denise O’Sullivan (Marine Institute) - Metadata Standard for Marine Plans**

Denise provided an update since the last TEG -MSP Data meeting in Las Palmas, in July 2022, and highlighted that this session is the last chance to provide feedback. Regarding implementation, EMODnet agreed to adopt the output of the sub-group. Currently, the metadata profile contains the following information:

- |                          |                              |                |
|--------------------------|------------------------------|----------------|
| - Data set               | - Geographic Coverage        | - Marine Plan  |
| - Dataset Status         | - HILUCS Classification Code | - Organisation |
| - Date                   | - Legislation                | - Policy       |
| - EMODnet Human Activity | - MSFD Descriptor            | - Role         |

The next steps are to adopt a metadata standard on EMODnet; and for Andrew Conway to produce the technical report, which will be shared with the sub-group for feedback before it can be finalised. Denise O’Sullivan shared her email for the group to provide questions and comments.

**Andrew Conway Marine Institute):** Any feedback would be great, as this topic is close to our stage of operation. We can probably adapt what we have now into something simpler. If anyone has any suggestions for big changes, please raise that point as soon as possible.

#### **8. Andrej Abramic – MSP DATA FRAMEWORK**

Currently the data framework includes seven data clusters with a strong coastal component, and has received the highest input from Poland Greece, Sweden, France, and Italy, as well as from several projects including PLASMAR, WESTMED, SIM-ATLANTIC, MSPMED. Within the last few months, the sub-group has assessed the socio-economic information, noting a lack of input and experience in the topic of governance linked to certain maritime activities, and the applicable laws and policies.

For each cluster, we provide the following description:

- Cluster description, what the spatial information should consist of, and why is this relevant for the MSP process, data collection, monitoring and/or assessment.
- Structure of the cluster.
- Available digital resources for data management and harmonization as potential data models, including registers and related code lists.
- Harmonized data products, delivered by the EU data initiatives (EMODnet, Copernicus etc.).

The draft report will be shared with TEG before being finalized. This supports the harmonization of input data ensuring their high-quality development.

### **9. Jose L Santiago & Marta Ballesteros – Socio Economic impact of MSP**

We developed a method to assess the socio-economic impacts arising from MSP. The method analysed more than 100 papers and included surveys on coastal states, receiving responses from: Ireland, Sweden, Poland, Spain, and France. The preliminary results confirm that: MSP is under elaboration for one country. MSP is approved for three countries. MSP is implemented for two countries.

The sectors covered by the plans include Fisheries, Aquaculture, Coastal tourism, Recreation, Cruises, Freight transport and ferries, Marine Energy, Cultural heritage, Defence, Research, Environmental protected areas, Pipelines and cables, Mining and disposal, Marine surveillance, Port activity. Some data gaps remain on the sectors of tourism, cruises, defence, marine surveillance, cultural heritage, and port activity. This is common as no specific data are disaggregated for maritime uses. Most of the data available cover from 1 to 3 years (60%), from 3 to 5 years (20%) and over 5 years (20%). So far, none of the data provided have been included in any visualization tool. The uses for these data are to describe the different economic sectors operating in the marine space, carried out for the socio-economic benefit of being able to plan for future uses and allocate marine space. These socio-economic data are integrated with other data. There is room for improvement based on improving the data collection and analysis. Preliminary findings highlight that economic data are more collected than social data. Some data can be difficult to access if no national branch exists to gather them. Data mostly focuses on short term; their main purpose is descriptive analyses. There is a strong margin for improvement. The next steps are:

- Improve the survey completion
- Finalisation of the literature review
- Draft the guidelines for recommendation on socio economic impact of MSP.

#### **Comments, Questions & Answers:**

**Q: Yolanda Sagarminaga (AZTI):** Partners using MSP, are the data sources national?

**A: Jose L. Santiago:** Sources are not included but I suppose statistics come from a national scope.

**Daniel Norton (Marine Institute):** Due to confidentiality issues, some data cannot be shared, which twists the analysis provided, as is the case for the Oil and Gas industry. There are a lot of difficulties on that topic to build a coherent data set.

**Jose L. Santiago:** There are some good steps developed by DG MARE on Blue Economy reports, but it recognizes some limitations due to lack of data in some sectors.

## **10. TEG future activities:**

The next steps for 2023 include: (1) The finalization of the subgroup work (early 2023); (2) working with MSP output data flows and roles regarding MSP output and data governance; (3) continue providing support and guidance for related projects; and (4) increase the international cooperation and the sharing of experiences.

**Anja Detant (CINEA):** There is an appetite among the experts to continue this exercise. Your work will be officially recognized. There will be the new contact for the MSP Assistance Mechanism & Blue Forum launched in January 2023. The Terms of Reference guarantee the continued administrative and logistical support to the TEG. There will be an official recognition of the value of your work, it also means that we will need to reflect on where to go next. Please know that you will be able to count on the MSP Assistance Mechanism. We are setting up a group for MSP in the MED and discussing the creation of a COP for MSP in the area. Once it is established, we will reflect together if there would be a need to work on data and connect with the work done in this group.

**Juan Ronco (DG MARE):** Some projects are on-going which can benefit from the work of this TEG.

**Chris McDougall (MSP Assistance Mechanism)** closes the meeting.