Technical Expert Group (TEG) – Marine Spatial Planning (MSP) Data

TEG Results & Follow up– 18 April 2023

Meeting via ZOOM

All presentations given during the meeting will be available on the European MSP Platform.

1. Introduction by the TEG Co-chairs

Andrej Abramic welcomed everyone to the 10th meeting of the TEG for MSP Data. 'Today we are finalising the 2nd cycle of the TEG', which has 5 sub-groups (MSFD & MSP Data Management; Metadata Standard for Marine Plans; Network Services for MSP; MSP Data Framework; Socioeconomic impact of MSP). Today the sub-groups will summarise their latest work, which will be followed by a round table discussion, questions and answers.

Currently, there are 8 national MSP plans available on EMODNET. In this context, the TEG has developed a new symbology, based on INSPIRE data principles, to represent new uses of the sea, such as carbon storage or heritage protection, among others. The new symbology and layers are available on EMODNET under 'other uses' and can also be downloaded to use in national MSP GIS. The TEG also updated the MSP INSPIRE Data Model, adding new layers that allow users to search MSP 'priority areas', or 'restricted areas' across EMODNET maps.

Juan Ronco (DG MARE) thanked everyone part of the TEG for their work and announced that someone else from MARE will take over from him following his in September. He commended the continuity of the TEG's work and the value of this work and its data, for the the member states, the MSP Assistance Mechanism and the EU Blue Forum.

2. Stefano Menegon (CNR-ISMAR) - TEG sub-group: MSFD & MSP Data Management

During the last year (2022-2023), the sub-group has reviewed how MSP data has been used by EU Member States in the implementation of the MSFD. The key findings are:

- A 'medium' level of data integration has been achieved, not more, because the MSP stage 4 (monitoring) has not been reached in the majority of countries yet.
- Spatial elements and scale mismatch – MSP is more spatially explicit, while the MSFD is primarily perceived as a strategic planning tool.
- 'Background coherence' (i.e., policy, objectives) is important to facilitate 'data coherence'.
- The existence of a data sharing mechanism is key during all stages of MSP.
- There is potential to create better 'cooperation and shared data infrastructures.

For more details, please see presentation and report soon to be available on the European MSP Platform.

3. Pascal Derycke – TEG sub-group: Network Services for MSP

Presented the results of the testing the sub-group has carried out over the last few months, in terms of data and network services. This includes testing applications and tools for data access and mapping, data - discoverability and availability.

The sub-group also studied what tools will be needed in the future for MSP. These include linked-data, semantic web and big-data analysis. The study concluded that it was key to prepare MSP data for the new Artificial Intelligence (AI) paradigm, this is, design MSP data in a way that AI can extract value from it, for the different users (e.g., to enable ChatGPT to answer spatial questions about MSP). In this regard, MSP metadata needs to be readable and actionable by the technologies of the future.

4. **Denise O'Sullivan (Ireland Marine Institute) - TEG sub-group: Metadata Standard for Marine Spatial Plans**

The sub-group has been working on developing a standard for metadata that can be used across MSP. The final report is being finalised, to be issued in the second half of 2023. Denise presented an example of how the metadata will look.

Pascal Decrycke celebrated the example, highlighting that this type of metadata format, is exactly what AI and the information systems of the future, i.e., the machines, will need to do MSP analysis and respond to MSP questions of future users of the sea.

For more details, please see report soon to be published on the European MSP Platform.

5. **Andrej Abramic – TEG sub-group: MSP Data Framework**

The sub-group developed a MSP Data Framework to help structure the input data in the MSP process, particularly, in the monitoring and evaluation stage, which is the stage at which most EU MSPs currently are. As part of the framework, the MSP data is structured around seven data clusters*: marine and coastal environment; marine and coastal conservation and designated sites; oceanographic characteristics and climate; coastal land use and planning; operative maritime activities and planning; socio-economic information; and governance information.*

The framework has the following benefits:

- Guides data collection.
- Structures input data.
- Facilitates identification of information gaps.
- Helps MSP input data harmonisation.
- Improves comparability of applied data collections.
- Improves the analysis and the possibility to compare results across studies / data.
- Supports design for monitoring and evaluation.

More information is available within the MSP Data Framework report, now published 1on the EU MSP Platform.

6. **Jose L. Santiago – TEG sub-group: Socioeconomic Impact of MSP**

The sub-group studies the use of socio-economic data in MSP. Their study found that most data relate to basic socio-economic indicators, with the most common data being Gross Value Added (GVA), followed by employment data, and production value. While most socio-economic data relate to the short-term (0-3 years), it is generally not represented spatially. Moreover, there seems to be a mismatch between the stated need and relevance of socio-economic data, and the actual capability of countries to produce the data and make it available for use. The study recommends, that if socio-economic data is needed for MSP, users should first, make use of the socio-economic data already available, and then search for synergies with other initiatives for example, initiatives linked to the MSFD socioeconomic groups which are dealing with the same topics in the same geographies. Additionally, it recommended to advance towards an accurate geographical definition of human activities in the EU's Blue Economy; and address specific challenges through a case study / pilot approach.

For more details, please see presentation and report soon to be available on the European MSP Platform.

7. **Joni Kaitaranta (HELCOM, and TEG Co-chair) –** Opened a round table discussion and invites participants to ask questions and provide comments.

Laura Stockute (DG MARE) – While studies showing progress comparison between countries anonymously can be helpful, I would also recommend, to share the results with the individual countries that took part in the studies, so that they know where they stand in the ranking. This might encourage them to keep progressing MSP data integration and it is also helpful for learning lessons.

Separately, I can confirm that the lack of socio-economic data is a recurrent issue, that has been very evident in the sectoral interaction between offshore renewable energy development and fisheries.

Jose L. Santiago - The main socio-economic data that exists at country level relates to GVA, revenue, etc. but it doesn't show geographically which people or community is benefiting. If this issue were resolved, it would enable more targeted support and local interventions.

Juan Ronco – It is good to see how the work of the different TEG sub-groups converge coherently. One day, AI might be able to draft a country's MSP on request, or conversely, carry out an evaluation of plans.

Daniel Depellegrin – Socio-economic data is often not comparable.

Jose L. Santiago – The EU Blue Economy report provides data that has been coded with the same standard and allow useful comparison between some economic sectors.

Pascal Derycke - Data is not always lacking, it is just often the case that it is in a different format. I frequently hear that data was taken from a PDF file, which I know must exist in another format somewhere. We need to think about converting to and using standard data formats. We can also use proxy data when direct data is lacking.

Joni Kaitaranta – If everyone would follow MSFD and annex 19.3, then useful monitoring and evaluation data would be readily available.

Marta Pascual – We are working on semantic modelling to make it usable by AI/ machines and are happy to provide more info and follow up with anyone who is interested.

Chris McDougall – Confirms that all sub-group reports once published will be made available in the EU Bookshop and on the European MSP Platform. Closes round table discussions, to continue with presentations.

8. **Joni Kaitaranta (HELCOM, and TEG Co-chair) –** MSP output data flow and data governance

The TEG developed a proposal for making harmonised MSP plan data available across Europe. The way of obtaining data varies from country to country. In some cases, countries upload data to a central site ('push' method), and in other cases, sites, like EDONET, extract data from the country's datasets ('pull' method). The general view from the TEG, is that a combination of push and pull is preferred, with each country deciding which method is more suitable for them. The TEG recommends the development of practical guidance for data providers with links to how to develop metadata standards and use data models. The guidance can include the great work developed by the TEG sub-groups (e.g., data standard).

For more details, please see the presentation on the European MSP Platform.

Jose L. Santiago – From a data host point of view, I can say that the ability to choose and combine pull and push approaches, is very useful for countries. This flexibility is important because many – MSP - plans are in an early implementation stage.

Laura Stockute - We can propose questions about this guidance ahead of the next MSEG meeting (e.g., in writing), which allows countries to analyse the questions with time, and provide feedback effectively.

9. **Anna Kurpanik (European Maritime Safety Agency - EMSA) & Jesus Hermida (applications architect) –** Common Information System for Europe (CISE)

CISE is a network that connects systems of authorities with responsibility on maritime surveillance. This includes for Europe, more than 300 maritime authorities that collect information on operational activities (e.g., vessels, cargo, etc.). CISE allows authorities to share information for enforcement, response, and surveillance. CISE is not a new system, but rather infrastructure that allows existing country systems to connect with each other and exchange data using their own country legacy systems. There is no central storage of information, and each authority can decide which information to share with whom. CISE allows countries to exchange data without the need to establish individual sharing protocols and platforms. Only the Operational Agreement must be signed by the authorities, and they can use CISE to exchange data with counterparts. More information: https://emsa.europa.eu/cise.html

For more details, please see presentation on the European MSP Platform.

Q: Andrej Abramic – How do you work with dynamic data (i.e., operations)?

A: Jesus Hermida – The communication protocol allows different ways of exchanging data. Depending on the type of data, the exchange can be immediate, or it might need pre-approval. The model is not designed to exchange massive volumes of data, but rather key point-to-point data. For dynamic data, the country legacy system, might require some pre-work on the data adaptation before it can be put into CISE.

Q: Pascal Derycke – (1) If you are exchanging data across borders, why are you not using 'e-delivery'? (2) As a maritime authority, how do you know what data is available, is there a data catalogue made available by each maritime authority?

A: Jesus Hermida – (1) The reason for not using 'e-delivery' is historical. When the project was set-up, the level of maturity was insufficient to use 'e-delivery'. Now the project has evolved to the point that is has surpassed 'e-delivery' capabilities, hence, it is not used. (2) The CISE has a catalogue which shows what data is available from each participant maritime authorities (e.g., catalogue of maps).

Q: Pascal Derycke – Is the data accessed by standard API?

A: Jesus Hermida – Yes. CISE provides a standard specification for the node, and if the maritime authority wants to exchange information with other partners, they need to use this standard specification.

Pascal Derycke – This means that the 'burden' to be compatible with the rest of the system is on the side of the data provider. In other information exchange systems, like Metadata DQAT, the 'burden' is on the metadata broker.

Jesus Hermida – Correct.

Adeline Souf - CISE will enable data sharing via web services like WMS, but it doesn't have to be 'live data'. Any type of format could be discussed for adaptation and exchange, with the CISE team.

Q: Marta Pascual - I understand from Spanish Authorities that there is a direct cost for the software of CISE so that it is updated etc. I also understood that this is voluntary for Member States What is the added value for MSs to purchase the CISE software, and use it?

A: Jesus Hermida – There will always be a cost to sharing information with a partner. To have a single platform to exchange data with many partners is more cost effective that exchanging information individually with countries, hence CISE will be more cost-beneficial for MS. MS do not need to pay for the software development or the maintenance, only for the data hosting. CISE is voluntary, but there will be some basic commitments to enable data use and maintain that data up to date.

10. **Chris McDougall (MSP Assistance Mechanism) – Conclusion and next steps**

It is fascinating to hear what has been achieved by the TEG. The next step is to start thinking and to discuss where the TEG and/or sub-groups will be in the next 24 months, i.e., working on AI, etc., as well as to pose questions to the MS in the next MSEG. As soon as the final versions of the individual studies presented today become available, they will be published in the EU Bookshop and made available on the European MSP Platform. Thank you.

Meeting closed