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## **D 8.5**

### **Title: Data Management Plan in cooperation with WP1**

Date: April 2020

Organization name of lead participant for this deliverable:

International Council for the Exploration of the Sea (ICES)

| Dissemination level |   |   |
|---------------------|---|---|
| PU                  | Public  | X |
| CO                  | Confidential, only for members of the consortium (incl the Commission Services) |   |

|                     |  |
|---------------------|--|
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Table 1.1

| Document history |            |                               |
|------------------|------------|-------------------------------|
| Version          | Date       | Description                   |
| 01               | 21.04.2020 | Initial version, Vaishav Soni |
|                  |            |                               |
|                  |            |                               |
|                  |            |                               |



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The International Council for the Exploration of the Sea (ICES) requested a 2-month extension to the Deliverable *D8.5 Data Management Plan in cooperation with WP1*, in order to include the outputs of the *Deliverable D1.1 Report on available data standards per data type* due Month 8.

Both deliverables are submitted Month 8 of the MEESO Project (April 2020).



This project has received funding from the EU H2020 research and innovation programme under Grant Agreement No 817669



# 1 Introduction

This deliverable presents an initial Data Management Plan (DMP) for the MEESO project, which is assigned under deliverables D8.5 to WP1-Data management and dissemination. WP1 will ensure data collected under the project available with the FAIR (Findable, Accessible, Interoperable and Reusable) principles. This document will be revised and updated during the project lifetime (in the form of updates of this deliverable report). Version history can be found on Table 1.1

Open Access and Open Science principles are an essential part of knowledge creation and sharing. They directly support the researchers need for greater impact and optimum dissemination of research, while also enabling the engagement of citizen scientists and the society to address societal challenges.

The Open Research Data Pilot aims to make the research data generated by Horizon 2020 projects accessible with as few restrictions as possible, while at the same time protecting sensitive data from inappropriate access.

The MEESO Grant agreement states that each beneficiary must ensure open access to all peer-reviewed scientific publications relating to its results (Article 29.2). Furthermore, research data beyond data used in publications only, and specified in the DMP, shall be deposited in a research data repository (Article 29.3).

This does not change the obligation to protect results in Article 27, the confidentiality obligations in Article 36 or the obligations to protect personal data in Article 39, all of which still apply.



## 2 Aim of the data collection

MEESO will create new knowledge and data on the mesopelagic community, its biodiversity, drivers of its biomass, and its role in carbon sequestration, its role in the oceanic ecosystem and its interactions with the epipelagic community which includes several important commercial fish stocks.

MEESO will demonstrate and implement new acoustic and trawl-sampling solutions which will allow quantification of abundances and spatial distributions of the mesopelagic resources.

MEESO partners will also make available for analyses within the project data from a range of standard monitoring cruises. Additionally, numerous future scientific and commercial trial cruises are planned by the partners for 2019 and 2020. MEESO will develop new technologies for catching and processing mesopelagic resources in close cooperation between academia and industry, including trawls, on-board handling and processing.



### 3 Defining the Challenge

The Horizon 2020 research framework program includes a limited and flexible pilot action on open access to research data.

Open access refers to the practice of providing online access to scientific information that is free of charge to the end-user and reusable. 'Scientific' refers to all academic disciplines. In the context of research and innovation, 'scientific information' can mean: i) peer-reviewed scientific research articles (published in scholarly journals), or ii) research data (data underlying publications, curated data and/or raw data) (European Commission, 2016).

The use of a DMP is required for projects participating in the Open Research Data Pilot. MEESO is required to develop a DMP specifying which research data will be openly accessible. Project partners in MEESO will create new data and also use already existing data. Different types of data will be created and used, so that each type of data set must be handled differently.

In addition, there will be more than one data repository for project data created in MEESO. This requires a comprehensive DMP, where every data set type should be described and accessible by the end of the project.





## 4 Approach

In MEESO there are different types of datasets that are being collected.

### **Biological and acoustic data:**

Data collection by the research vessels, which specifically for the target species, variables are Length/age and weight data, growth, maturity, sex-ratio, IGS, fecundity, weight at number of individuals by station, length of individuals. Acoustic beam data and acoustic abundance of target species

### **Biochemical and oceanography data**

Plankton and marine snow abundance, temperature, salinity, oxygen, light attenuation, nutrients and chlorophyll a

### **Fishing industry**

Expenses on fishing trips, such as fuel, labour, gear, and tax, catch date, catch size, vessel name and vessel size, tonnage, price by species, costs, capital and investment, effort (number of operative days or hours or month or year), fisher perceptions (qualitative data)

### **Interview data**

These data are qualitative research data where a professional asks a series of brief questions and answers. These are based on scientific focus groups and key stakeholders questionnaires. This includes resulting conversation between interviewees, or surveys which are more anonymous and limit respondents to a range of predetermined answer choices and fact.

Acoustic, biotic and oceanographic data generated by the project will be hosted in online thematic data portals at the International Council for the Exploration of the Sea (ICES).

ICES will be responsible for making harvested data and the metadata catalogue-publishing platform, public, searchable and secured beyond the lifetime of the MEESO project. Furthermore, the usage of the data is optimized, following the international standards with controlled vocabularies. In addition, ICES stock assessment scientists and stakeholders are familiar with the data structures provided by ICES.

### **4.1 Making Data findable, including provisions for metadata**

The data produced and used in the project will be discoverable with metadata. Data will be available from ICES Acoustic data and oceanography portal, for data which are submitted to ICES from MEESO data collection activities, metadata will be produced using ISO 19115 standards template, and the metadata will be published in an online metadata catalogue. See <http://gis.ices.dk/geonetwork/srv/eng/catalog.search#/home>.

Metadata are important as an aid in establishing further context around the data, e.g. the scientist who generated the data can be of significant help in their interpretation. Although the



data structures itself are very simple (plain ASCII), the biological interpretation may demand information only available in the dialogue with the responsible scientist.

The data will be made persistently identifiable and locatable by means of Digital Object Identifiers (DOI's ), search keywords will be provided that optimize possibilities for re-use, and where applicable version numbers will be provided.

Harvest and publishing metadata information at ICES will be fulfilled by MEESO project milestone M1.1, M1.2 and M1.8 (M1.1: Developing existing ICES Geonetwork to accommodate MEESO metadata records (Web interface and ISO 19115 template), M1.2: Produce guide to populate metadata for MEESO datasets and data products, M1.8: Alignment check of datasets and products available in project repository compared to meta data records in catalogue)

## 4.2 Making data openly accessible

All data generated by the project will be made openly available by default. Personal data from the stakeholder contact database and the relevant stakeholders taking part in the project activities cannot be made publicly available. The data and associated metadata will be available through ICES.

ICES Geonetwork will publish metadata of all the datasets, that are collected within the MEESO project life cycle. Some of the datasets will not be harvested to ICES databases, but their metadata information will be available from ICES Geonetwork portal. Acoustic, biotic and oceanography data will be publicly available from ICES data portals, these data will be screened by well defined quality control procedures. This task covers MEESO project milestone M1.6, M1.10 and M1.11 respectively (M1.10: Updates and check of meta data catalogue links to datasets transferred to international data repositories, M1.6: Review and recommendation of appropriate open data license(s), M1.11: Updates to datasets after QC feedback from international data portal(s)).

## 4.3 Making data interoperable

The major principle in data interoperability practiced in MEESO is that data exchange and reuse between researchers, institutions, organisations, countries, etc., and in particular the potential for re-combinations with different datasets from different origins is maximised. The data formats and any vocabularies that are referred to will be properly documented and described, ideally already recognized domain or international standards will be adopted. For instance, MEESO will use existing controlled lists in the ICES vocabulary <http://vocab.ices.dk/>, or standards referenced in EU regulation by STECF, where they apply to the data collected under the project. In addition, when the project partners have agreed which formats and standards to use. This task covers MEESO project milestone M1.4, M1.7 and M1.9 respectively (M1.9: Transfer of datasets in agreed formats to international data portal(s), M1.7: Formal partner acceptance of data licensed to adopt for collected data, M1.4: Central project repository established).



#### 4.4 Increase data re-use

The data, unless relating to natural persons, will be public without restrictions. For an example see: <https://acoustic.ices.dk/> the data will be made available for re-use directly from the portal, MEESO data are made available to the public ICES database before the end of the project.

#### 4.5 Data security

The data will be safely stored in both the originating data collecting partners system in international repositories for long term preservation and curation. The ICES data centre is an Inter-Regional hub for all kinds of marine data and operates independently of specific projects, which ensures a continuous service. It is actively and professionally maintained including regular backup and protection from intrusions.

#### 4.6 Ethical aspects

The ethical aspects of collecting and storing data in MEESO are treated in three separate deliverables on ethics. These deliverables will include: - The procedures and criteria that will be used to identify/recruit research participants. - The informed consent procedures that will be implemented for the participation of humans. - Templates of the informed consent forms and information sheets covering the voluntary participation and data protection issues (in language and terms intelligible to the participants) must be kept on file (to be specified in the grant agreement). - The English version of the templates of the informed consent forms and information sheets. - Details on the experiments to be conducted and information on the procedures to ensure animal welfare and adherence to the Three Rs principle.



## 5 Data Summary Template

A data summary template has been developed by ICES according to the EC Guidelines (Guidelines on FAIR Data Management in Horizon 2020, 2016). The template and instructions on how to complete it were distributed to all project participants. The examples for the template were also circulated, so project partners have a clear understanding of how to fill out the data summary table. The general questions taken from the EC template were adapted for the MEESO project and additionally annotated. The template is used to show data summaries provided in Annex of this document that give a detailed overview of the corresponding data sets for the MEESO project.

Data summary submission completed by:

- Wageningen University
- Fundacion AZTI – AZTI Fundazioa
- NOFIMA AS
- World Maritime University
- Marine and Freshwater Research Institute Iceland
- IMR

Template for the preliminary description of MEESO data to be generated or collected during the project.

### MEESO Report on initial Data Management Plan (Deliverable D 8.3.1)

|                     |   |  |
|---------------------|---|--|
| 1                   | Project Partner and responsible person (for MEESO DMP) and contact e-mail             |  |
| <b>DATA SUMMARY</b> |   |  |
| 2                   | Data set reference and name   | MEESO partner name:<br>Country code:<br>Number of MEESO WP:<br>Data set number/numbers – will be inserted by project coordinator upon delivery of each of the data set : |
| 3                   | What is a purpose of these data to the objectives of MEESO?                           | <i>State the purpose of the data collection/generation and explain the relation to the objectives of the project. Use DoA, incl. MEESO deliverable(s)</i>                |
| 4                   | Data set composition: describe sub-data sets (if applicable) and responsible partners | <i>Describe your data incl. data type(s) and format(s) and sub-data sets (if available)</i>  |
| 5                   | Expected size of the data   | <i>If known</i>  |
| 6                   | Are the data:   | o Generated in MEESO   |



|  |  |  |
|--|--|--|
|  |  | o collected, specify the origin of the data:   |
| 7  | Variables and scales (if already known, e.g. Profit [EUR], Temperature [°C], Depth [m]):   | <i>Specify:</i><br>1. <i>Parameters / units</i><br>2. <i>Area covered</i><br>3. <i>Spatial resolution</i><br>4. <i>Time span</i><br>5. <i>Temporal resolution</i>  |
| 8  | When will the data be approx. ready (acc. to DoA, project month)   |  |
| 9  | To whom it would be useful   | <i>Specify here the target user</i>  |
| 10                                       | Does similar data exist and what are the possibilities for integration and re-use?   |  |
| <b>Data Interoperability</b>             |  |  |
| 11                                       | Are the data produced in the project interoperable?  | <i>Yes or No or NA : Specify</i>   |
| 12                                       | Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?                                   | <i>Yes or No or NA : Specify</i>   |
| 13                                       | In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies. | <i>Yes or No or NA : Specify</i>   |
| <b>FAIR data / Providing open access</b> |  |  |
| 14                                       | The data archived will be  | Public at generation<br>o restricted to the consortium during the project's lifetime, 2019-2022 (all data is expected to be released no later than 2021)   |
| 15                                       | If the data <b>cannot be shared</b> : describe reasons<br>Do you plan to deposit your data in open access repository (additionally to the ICES database)?            | <i>Specify the reasons: ethical rules of personal data, intellectual property, commercial, privacy-related, security-related</i><br><ul style="list-style-type: none"> <li>• Provide open access repository names;</li> <li>• How can the data be accessed (describe access procedures) and under which conditions (if there any restrictions)?</li> <li>• What necessary software and tools enable re-use of the data?</li> </ul> |
| 16                                       | Are there any ethical or legal issues?   | <ul style="list-style-type: none"> <li>• Describe any issues that can have an impact on data sharing (personal data, confidential data)</li> </ul>   |



|  |  |   |
|--|--|---|
|  |  | <ul style="list-style-type: none"><li>• <i>For the experiments on fish – please mention how you will handle with ethical issues (and attach files if needed, such certificates or permissions for experiments etc.)</i></li></ul> |
|--|--|---|



## 6 References

- EUROPEAN COMMISSION. (2016). Guidelines on FAIR Data Management in Horizon 2020. (D. g. innovation, Ed.) p. 12. Retrieved 05 31, 2018, from [http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hi-oa-data-mgt\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf)
- European Commission. (2016). Participant Portal H2020 online manual. Retrieved from [http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cuttingissues/open-access-data-management/open-access\\_en.htm](http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cuttingissues/open-access-data-management/open-access_en.htm)
- European Commission, Directorate-General for Research & Innovation. (2016, February 15). Guidelines on Data Management in Horizon 2020. Version 2.1.



## Annex 1. Draft Data Summary Description of the main data sets provided by the MEESO partners

|                              |  |  |
|------------------------------|--|--|
| 1                            | Project Partner and responsible person (for MEESO DMP) and contact e-mail                | WU, Rolf Groeneveld, rolf.groeneveld@wur.nl  |
| <b>DATA SUMMARY</b>          |  |  |
| 2                            | Data set reference and name  | MEESO partner name: WU<br>Country code: NL<br>Number of MEESO WP: 6<br>Data set number/numbers – will be inserted by project coordinator upon delivery of each of the data set : |
| 3                            | What is a purpose of these data to the objectives of MEESO?                              | <i>To gain insight into the cost structure of a mesopelagic fishing fleet (D6.1, D6.2, D6.3)</i>   |
| 4                            | Data set composition: describe sub-data sets (if applicable) and responsible partners    | <i>Transcripts of interviews with fishermen, representatives of fishing companies, and experts. The interviews are carried out by WU, DTU, and AZTI.</i>                         |
| 5                            | Expected size of the data  | <i>If known</i>  |
| 6                            | Are the data:  | x Generated in MEESO<br>o collected, specify the origin of the data:   |
| 7                            | Variables and scales (if already known, e.g. Profit [EUR], Temperature [°C], Depth [m]): | <i>This is qualitative research.</i>   |
| 8                            | When will the data be approx. ready (acc. to DoA, project month)                         | M24  |
| 9                            | To whom it would be useful   | <i>Researchers within MEESO (MSE and CBA)</i>  |
| 10                           | Does similar data exist and what are the possibilities for integration and re-use?       | <i>No</i>  |
| <b>Data Interoperability</b> |  |  |
| 11                           | Are the data produced in the project interoperable?                                      | <i>NA: these are qualitative data</i>  |





|  |  |  |
|--|--|--|
| 12                                       | Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?                                   | <i>These are qualitative data. Use of STECF vocabulary depends on the use of jargon by interviewees. When possible a glossary will be provided.</i>  |
| 13                                       | In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies. | Yes  |
| <b>FAIR data / Providing open access</b> |  |  |
| 14                                       | The data archived will be  | Due to the requirements under the GDPR access to the data will be restricted to the consortium during the project's lifetime, 2019-2022 (all data is expected to be released no later than 2021) |
| 15                                       | If the data <b>cannot be shared</b> : describe reasons<br>Do you plan to deposit your data in open access repository (additionally to the ICES database)?            | <i>The GDPR does not allow us to share these data as they are provided by individual respondents.</i>  |
| 16                                       | Are there any ethical or legal issues?   | <ul style="list-style-type: none"> <li>• We have to follow the guidelines as provided by the GDPR.</li> </ul>  |

|                     |   |  |
|---------------------|---|--|
| 1                   | Project Partner and responsible person (for MEESO DMP) and contact e-mail | WU, Rolf Groeneveld, rolf.groeneveld@wur.nl  |
| <b>DATA SUMMARY</b> |   |  |
| 2                   | Data set reference and name   | MEESO partner name: WU<br>Country code: NL<br>Number of MEESO WP: 6<br>Data set number/numbers – will be inserted by project coordinator upon delivery of each of the data set : |
| 3                   | What is a purpose of these data to the objectives of MEESO?               | <i>To quantify the cost structure of a mesopelagic fishing fleet (D6.1, D6.2, D6.3)</i>  |
| 4                   | Data set composition: describe sub-data sets (if                          | <i>Expenses on fishing trips, such as fuel, labour, gear, and taxes. Collected by WU, DTU, and AZTI.</i>   |



|                              |  |   |
|------------------------------|--|---|
|                              | applicable) and responsible partners   |   |
| 5                            | Expected size of the data  | <i>Unknown</i>  |
| 6                            | Are the data:  | o Generated in MEESO<br>x collected, specify the origin of the data: We will ask individual fishing companies that have been involved, or are currently involved, in a mesopelagic fishery for financial-economic data on their mesopelagic fishing trips.  |
| 7                            | Variables and scales (if already known, e.g. Profit [EUR], Temperature [°C], Depth [m]):   | <i>NOTE: this all depends on what fishing companies are willing and able to deliver. We don't know yet what is possible in this respect. Below is what we HOPE to collect.</i><br><i>Parameters / units: costs of fuel, labour, gear, and other expenses per fishing trip; fishing days per fishing trip; days-at-sea per fishing trip; catches per fishing trip; distance covered per fishing trip</i><br><i>Area covered: NA</i><br><i>Spatial resolution: ideally we will have AIS data that allows us to visualize individual fishing trips but this depends on availability.</i><br><i>Time span: this depends on when the respective companies have been fishing the mesopelagic.</i><br><i>Temporal resolution: most likely per fishing trip, except for AIS data (if available)</i> |
| 8                            | When will the data be approx. ready (acc. to DoA, project month)   | M24   |
| 9                            | To whom it would be useful   | <i>Researchers within MEESO (MSE and CBA)</i>   |
| 10                           | Does similar data exist and what are the possibilities for integration and re-use?   | <i>Not for the mesopelagic</i>  |
| <b>Data Interoperability</b> |  |   |
| 11                           | Are the data produced in the project interoperable?  | ?   |
| 12                           | Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability? | Yes   |
| 13                           | In case it is unavoidable that you use uncommon or generate project specific   | Yes   |



|  |   |  |
|--|---|--|
|  | ontologies or vocabularies, will you provide mappings to more commonly used ontologies.   |  |
| <b>FAIR data / Providing open access</b> |   |  |
| 14                                       | The data archived will be   | Due to the requirements under the GDPR access to the data will be restricted to the consortium during the project's lifetime, 2019-2022 (all data is expected to be released no later than 2021) |
| 15                                       | If the data <b>cannot be shared</b> : describe reasons<br>Do you plan to deposit your data in open access repository (additionally to the ICES database)? | <i>The GDPR does not allow us to share these data as they are provided by individual respondents.</i>  |
| 16                                       | Are there any ethical or legal issues?  | <ul style="list-style-type: none"> <li>• <i>We have to follow the guidelines as provided by the GDPR.</i></li> </ul>   |

|                     |   |  |
|---------------------|---|--|
| 1                   | Project Partner and responsible person (for MEESO DMP) and contact e-mail             | WU, Rolf Groeneveld, rolf.groeneveld@wur.nl  |
| <b>DATA SUMMARY</b> |   |  |
| 2                   | Data set reference and name   | MEESO partner name: WU<br>Country code: NL<br>Number of MEESO WP: 6<br>Data set number/numbers – will be inserted by project coordinator upon delivery of each of the data set :   |
| 3                   | What is a purpose of these data to the objectives of MEESO?                           | <i>To quantify the cost structure of a mesopelagic fishing fleet (D6.1, D6.2, D6.3)</i>  |
| 4                   | Data set composition: describe sub-data sets (if applicable) and responsible partners | Combination of maurolicus catch data collected from the Fisheries Directorate Iceland (catch date, catch size, vessel name and number); vessel data from the Icelandic Transport Authority (vessel size, tonnage); and STECF data (expenses on fishing trips, such as fuel, labour, gear, and taxes, by fishing vessels similar to the Icelandic vessels involved in mesopelagic fishing). |



|  |  |  |
|--|--|--|
| 5  | Expected size of the data  | <i>Unknown</i>   |
| 6  | Are the data:  | o Generated in MEESO<br>x collected, specify the origin of the data: Fisheries Directorate Iceland<br>( <a href="http://www.fiskistofa.is/english/quotas-and-catches/catches-in-individual-species/">http://www.fiskistofa.is/english/quotas-and-catches/catches-in-individual-species/</a> ); Icelandic Transport Authority<br>( <a href="https://www.samgongustofa.is/siglingar/skrar-og-utgafa/skipaskra/uppfletting">https://www.samgongustofa.is/siglingar/skrar-og-utgafa/skipaskra/uppfletting</a> ); STECF |
| 7  | Variables and scales (if already known, e.g. Profit [EUR], Temperature [°C], Depth [m]):   | <i>Maurolicus catch, vessel size, vessel tonnage, of vessels in the Fisheries Directorate Iceland data over 2009-2016 Expenses on fishing inputs (e.g. fuel, labour, gear) and fishing effort (fishing days, fishing trips, days-at-sea) of vessels similar to the Icelandic mesopelagic vessels from STECF in the last 3 years</i>  |
| 8  | When will the data be approx. ready (acc. to DoA, project month)   | M24  |
| 9  | To whom it would be useful   | <i>Researchers within MEESO (MSE and CBA)</i>  |
| 10                                       | Does similar data exist and what are the possibilities for integration and re-use?   | <i>Not this combination</i>  |
| <b>Data Interoperability</b>             |  |  |
| 11                                       | Are the data produced in the project interoperable?  | ?  |
| 12                                       | Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?                                   | Yes  |
| 13                                       | In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies. | Yes  |
| <b>FAIR data / Providing open access</b> |  |  |
| 14                                       | The data archived will be  | If the data can be made public under the GDPR we will do so; otherwise access will be restricted to the  |



|    |   |   |
|----|---|---|
|    |   | MEESO consortium. Sources and R code will be made publicly available.   |
| 15 | If the data <b>cannot be shared</b> : describe reasons<br>Do you plan to deposit your data in open access repository (additionally to the ICES database)? | If the data can be made public under the GDPR we will do so; otherwise access will be restricted to the MEESO consortium. Sources and R code will be made publicly available. |
| 16 | Are there any ethical or legal issues?  | <i>The GDPR may not allow us to share these data as they are provided by individual respondents.</i>  |

|                     |  |  |
|---------------------|--|--|
| 1                   | Project Partner and responsible person (for MEESO DMP) and contact e-mail                | WU, Rolf Groeneveld, rolf.groeneveld@wur.nl  |
| <b>DATA SUMMARY</b> |  |  |
| 2                   | Data set reference and name  | MEESO partner name: WU<br>Country code: NL<br>Number of MEESO WP: 6<br>Data set number/numbers – will be inserted by project coordinator upon delivery of each of the data set :   |
| 3                   | What is a purpose of these data to the objectives of MEESO?                              | <i>To gain insight into main concerns among stakeholders regarding a mesopelagic fishery</i>   |
| 4                   | Data set composition: describe sub-data sets (if applicable) and responsible partners    | <i>Transcripts of interviews and focus group discussions with stakeholders on concerns with respect to mesopelagic fisheries</i>   |
| 5                   | Expected size of the data  | <i>Unknown</i>   |
| 6                   | Are the data:  | x Generated in MEESO<br>o collected, specify the origin of the data:   |
| 7                   | Variables and scales (if already known, e.g. Profit [EUR], Temperature [°C], Depth [m]): | <i>These are qualitative data and will be transcripts of interviews and focus group discussions. Issues discussed during the interviews and FGDs will include extreme events anticipated by stakeholders as an outcome of mesopelagic fishing; risks associated with mesopelagic fishing; criteria that should be included in management strategy evaluations; and reference levels of those criteria.</i> |



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| 8  | When will the data be approx. ready (acc. to DoA, project month)   | M24  |
| 9  | To whom it would be useful   | <i>Policy makers; researchers in MEESO involved in MSEs</i>  |
| 10                                       | Does similar data exist and what are the possibilities for integration and re-use?   | <i>No</i>  |
| <b>Data Interoperability</b>             |  |  |
| 11                                       | Are the data produced in the project interoperable?  | <i>NA (qualitative data)</i>   |
| 12                                       | Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?                                   | <i>No (depends on vocabulary used by participants and interviewees)</i>  |
| 13                                       | In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies. | <i>Yes</i>   |
| <b>FAIR data / Providing open access</b> |  |  |
| 14                                       | The data archived will be  | Due to the requirements under the GDPR access to the data will be restricted to the consortium during the project's lifetime, 2019-2022 (all data is expected to be released no later than 2021) |
| 15                                       | If the data <b>cannot be shared</b> : describe reasons<br>Do you plan to deposit your data in open access repository (additionally to the ICES database)?            | <i>The GDPR does not allow us to share these data as they are provided by individual respondents.</i>  |
| 16                                       | Are there any ethical or legal issues?   | <ul style="list-style-type: none"> <li><i>We have to follow the guidelines as provided by the GDPR.</i></li> </ul>   |



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| 1                   | Project Partner and responsible person (for MEESO DMP) and contact e-mail  | AZTI<br>Paula Alvarez<br>palvarez@azti.es   |
| <b>DATA SUMMARY</b> |  |   |
| 2                   | Data set reference and name<br>Analyses of nutritional whole-body composition of oceanographic samples of MPs from different areas of the Bay of Biscay and nutrient composition of the fractions obtained in the production of fish hydrolysates. | MEESO partner name: AZTI<br>Country code: ES<br>Number of MEESO WP: 3<br>Data set number/numbers – will be inserted by project coordinator upon delivery of each of the data set :  |
| 3                   | What is a purpose of these data to the objectives of MEESO?  | <i>State the purpose of the data collection/generation and explain the relation to the objectives of the project. Use DoA, incl. MEESO deliverable(s)</i><br><br>Determination of the variation in raw material quality and nutrient content.<br>Assess the production of functional and safe feed and food products, by screening nutrient profile.  |
| 4                   | Data set composition: describe sub-data sets (if applicable) and responsible partners  | <i>Describe your data incl. data type(s) and format(s) and sub-data sets (if available)</i><br>Analysis of nutritional composition.<br>4 samples of different geographical areas Bay of Biscay (L):<br>Total fat.<br>Protein content<br>Lipid profile<br>Fat oxidation: peroxides, TBA<br>Aminoacid profile<br><br>Proximal composition of fish hydrolysates:<br>Total fat.<br>Protein<br>Lipid profile<br>Fat oxidation: peroxides, TBA<br>Aminoacid profile |



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|                              |  | Mineral fraction (separated bones):<br>Protein<br>Fat<br>Calcium<br>Phosphorus<br>Zinc<br>Iron<br>Protein<br>Collagen  |
| 5                            | Expected size of the data  | <i>If known</i>  |
| 6                            | Are the data:  | Data will be generated in MEESO  |
| 7                            | Variables and scales (if already known, e.g. Profit [EUR], Temperature [°C], Depth [m]):   | <i>Specify:</i><br>1. <i>Parameters / units:</i> all analytical parameters will be expressed in international units defined in standard AOAC methods and per dry matter of raw material or product.<br>2. <i>Area covered :</i> Bay of Biscay<br>3. <i>Spatial resolution:</i> 43°-48°N<br>4. <i>Time span:</i> 2019-2020<br>5. <i>Temporal resolution:</i> Annual (samples are provided by the annual acoustic survey JUVENA) |
| 8                            | When will the data be approx. ready (acc. to DoA, project month)   | Month 46:<br>Database on contaminants, nutraceuticals and nutrients.   |
| 9                            | To whom it would be useful   | Food, feed and nutraceutical industry.   |
| 10                           | Does similar data exist and what are the possibilities for integration and re-use?   | Some information can be obtained from old publications for some areas in the NEA waters, but nothing in the Bay of Biscay.   |
| <b>Data Interoperability</b> |  |  |
| 11                           | Are the data produced in the project interoperable?  | NA   |
| 12                           | Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability? | Yes  |
| 13                           | In case it is unavoidable that you use uncommon or generate project specific   | NA   |





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|  | ontologies or vocabularies, will you provide mappings to more commonly used ontologies.   |   |
| <b>FAIR data / Providing open access</b> |   |   |
| 14                                       | The data archived will be   | Restricted to the consortium during the project's lifetime, 2019-2022 (all data is expected to be released no later than 2021)  |
| 15                                       | If the data <b>cannot be shared</b> : describe reasons<br>Do you plan to deposit your data in open access repository (additionally to the ICES database)? | Extension of the current open access seafood database on nutrients and contaminants ( <a href="https://sjomatdata.nifes.no/#search/">https://sjomatdata.nifes.no/#search/</a> ). (As stated in the DoW) |
| 16                                       | Are there any ethical or legal issues?  | NO  |

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| 1                   | Project Partner and responsible person (for MEESO DMP) and contact e-mail | AZTI,<br>Paula Alvarez<br>palvarez@azti.es   |
| <b>DATA SUMMARY</b> |   | Data collected during MEESO surveys  |
| 2                   | Data set reference and name<br>VITAL RATES                                | MEESO partner name: AZTI<br>Country code: ES<br>Number of MEESO WP: WP2 and WP4<br>Data set number/numbers – will be inserted by project coordinator upon delivery of each of the data set:  |
| 3                   | What is a purpose of these data to the objectives of MEESO?               | <i>State the purpose of the data collection/generation and explain the relation to the objectives of the project. Use DoA, incl. MEESO deliverable(s).</i><br>To estimate acoustic abundance of target species and map temporal trend of abundance (D4.1 and D4.3)<br>Determine vital rates and effect of environmental parameters on growth, to explore distribution of the biomass of the target species in relation to key environmental variables (D4.2 and D4.3). |
| 4                   | Data set composition: describe sub-data sets (if                          | <i>Describe your data incl. data type(s) and format(s) and sub-data sets (if available).</i><br>a) Length/age and weight data for target species.  |



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|   | applicable) and responsible partners   | <ul style="list-style-type: none"> <li>b) Biological data (growth, maturity, sex-ratio, IGS, fecundity) for target species.</li> <li>c) Explanatory variables such as Depth, Temperature, salinity, Oxygen (in selected stations), chlorophyll (in selected stations).</li> <li>d) Plankton abundance (in selected stations).</li> <li>e) Acoustic abundance of target species during MEESO project and from time series in the Bay of Biscay.</li> <li>f) Acoustic beam data.</li> <li>g) Scientific pelagic trawl survey data: station information (lat,long, depth), weight and number of individuals by station, length of individuals.</li> </ul>  |
| 5 | Expected size of the data  |   |
| 6 | Are the data:  | Data will be collected from national survey "JUVENA" as part of the EU DCF sampling programs.   |
| 7 | Variables and scales (if already known, e.g. Profit [EUR], Temperature [°C], Depth [m]): | <p><i>Specify:</i></p> <ol style="list-style-type: none"> <li>1. Parameters / units: Length [mm], Weight [gr], Age [year], Biomass per ESDU per specie [kg/m], NASC per ESDU per specie [m/n.mi.<sup>2</sup>], total biomass per specie [tonnes], plankton [number/m<sup>3</sup>], Temperature [°C], Salinity [PSU], Depth [m], Oxygen [ml/l, and %], Chla [µg/l]), latitude and longitude [dd:mm:ss], Date and hour [GMT]</li> <li>2. Area covered: <ul style="list-style-type: none"> <li>a) and b) Data will be collected by MEESO surveys in years 2019, 2020.</li> <li>c) to g) Bay of Biscay</li> </ul> </li> <li>3. Spatial resolution: <ul style="list-style-type: none"> <li>a) and b) MEESO surveys areas</li> <li>c) to g) 43°N-48°N</li> </ul> </li> <li>4. Time span: e) 2013-2020, f) and g) 2019, 2020, f) and g) 2013-2020</li> <li>5. Temporal resolution: annual</li> </ol> |
| 8 | When will the data be approx. ready (acc. to DoA, project month)                         | a) to d) December each year, g) December each year (2020, 2021)   |
| 9 | To whom it would be useful   | The data will be useful to eco-physiologists and stock assessment scientists running models   |



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| 10                                       | Does similar data exist and what are the possibilities for integration and re-use?   | For a) and b) some information can be obtained from old publications for some areas in the NEA waters, but nothing in the Bay of Biscay.<br>c) d) and e) No<br>f) and g) acoustic-based abundance data for <i>Maurolicus muelleri</i> from JUVENA 2013-2018  |
| <b>Data Interoperability</b>             |  |  |
| 11                                       | Are the data produced in the project interoperable?  | The major principle in data interoperability practised in MEESO is that data exchange and re-use between researchers, institutions, organisations, countries, etc., and in particular the potential for re-combinations with different datasets from different origins is maximised. The data formats and any vocabularies that are referred to will be properly documented and described, ideally already recognized domain or international standards will be adopted. |
| 12                                       | Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?                                   | Yes  |
| 13                                       | In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies. | Yes  |
| <b>FAIR data / Providing open access</b> |  |  |
| 14                                       | The data archived will be  | Restricted to the consortium during the project's lifetime, 2019-2022 (all data is expected to be released no later than 2022)   |
| 15                                       | If the data <b>cannot be shared</b> : describe reasons<br>Do you plan to deposit your data in open access repository (additionally to the ICES database)?            | Acoustic-based abundance data will be deposited in the ICES database.  |
| 16                                       | Are there any ethical or legal issues?   | No   |



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| 1                   | Project Partner and responsible person (for MEESO DMP) and contact e-mail                | AZTI,<br>Paula Alvarez<br>palvarez@azti.es   |
| <b>DATA SUMMARY</b> |  | Data collected during MEESO surveys  |
| 2                   | Data set reference and name<br>VITAL RATES   | MEESO partner name: AZTI<br>Country code: ES<br>Number of MEESO WP: WP6<br>Data set number/numbers – will be inserted by project coordinator upon delivery of each of the data set :   |
| 3                   | What is a purpose of these data to the objectives of MEESO?                              | The objective is to get a detailed understanding of the cost structure of a mesopelagic fishery and fishermen perception about the new mesopelagic fishery (D6.1 and D6.3).  |
| 4                   | Data set composition: describe sub-data sets (if applicable) and responsible partners    | <i>Describe your data incl. data type(s) and format(s) and sub-data sets (if available).</i><br>a) General characteristics of the most suitable fleet in the Basque Country (Spain).<br>b) Economic data of the suitable fleet (probably we will use the existing data and contrast these data with the fishers).<br>c) The perception about the mesopelagic fishery (qualitative data)              |
| 5                   | Expected size of the data  | unknown  |
| 6                   | Are the data:  | <i>Generated in MEESO:</i> The perception about the mesopelagic fishery<br><i>Collected, specify the origin of the data:</i> From regional statistics, Annual economic report and improved with surveys carried out in MEESO.  |
| 7                   | Variables and scales (if already known, e.g. Profit [EUR], Temperature [°C], Depth [m]): | <i>Specify:</i><br>1. Parameters / units:<br>Operation area (Long and Lat); catches or landings by species (weight); Price by species (EUR); Costs (EUR/year); capital and investment (EUR); Effort (number of operative days or hours or month or year); Fisher perceptions (qualitative data).<br>2. Area covered:<br>Bay of Biscay<br>3. Spatial resolution:<br>Not decided yet.<br>4. Time span: |



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|  |  | 5. Temporal resolution: depending on the variable, but in general terms annual.  |
| 8  | When will the data be approx. ready (acc. to DoA, project month)   | Month 24 – 36.   |
| 9  | To whom it would be useful   | It would be useful to fish owner interested in start with the new mesopelagic fishery and to managers.   |
| 10                                       | Does similar data exist and what are the possibilities for integration and re-use?   | Data about landings, prices and costs exist, but in this project these data will be tested and tuned up with the sectors. Data about the perception does not exist.  |
| <b>Data Interoperability</b>             |  |  |
| 11                                       | Are the data produced in the project interoperable?  | As far as possible the AER methodology will be applied.  |
| 12                                       | Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?                                   | Yes  |
| 13                                       | In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies. | Yes  |
| <b>FAIR data / Providing open access</b> |  |  |
| 14                                       | The data archived will be  | Restricted to the consortium during the project's lifetime, 2019-2022 (all data is expected to be released no later than 2022). Raw data, if the unit is the vessel, will not be available but only aggregated data. |
| 15                                       | If the data <b>cannot be shared</b> : describe reasons<br>Do you plan to deposit your data in open access repository (additionally to the ICES database)?            | <i>Not decided yet.</i>  |
| 16                                       | Are there any ethical or legal issues?   | No   |



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| 1                   | Project Partner and responsible person (for MEESO DMP) and contact e-mail                |   |
| <b>DATA SUMMARY</b> |  |   |
| 2                   | Data set reference and name  | MEESO partner name: Nofima<br>Country code:NO<br>Number of MEESO WP: 1, WP3<br>Data set number/numbers – will be inserted by project coordinator upon delivery of each of the data set :  |
| 3                   | What is a purpose of these data to the objectives of MEESO?                              | <i>The data will be used in order to determine if the different commercial catches of mesopelagic catch is suitable for food or feed applications</i>   |
| 4                   | Data set composition: describe sub-data sets (if applicable) and responsible partners    | <i>Catch from different cruises will be analysed as is when received, and if the catch consists of mixed species, these will be separated.</i><br><i>Each catch will be subjected to ensilage, hydrolysis and meal production.</i><br><i>For hydrolysis, four different enzymes will be employed</i><br><i>For each treatment</i><br><i>- the water, oil and lipid phase will be separated and analysed for nutritional composition, amino acid composition, lipid classes. pH, physiochemical properties, inkl water solubility and binging and suitability for being used in extrusion machines and in food products.</i><br><i>Each phase will be sent to partners HI and Teagisc for testing as described from the partners</i> |
| 5                   | Expected size of the data  | <i>Not known</i>  |
| 6                   | Are the data:  | <input type="checkbox"/> Generated in MEESO - Yes<br><input type="checkbox"/> collected, specify the origin of the data:  |
| 7                   | Variables and scales (if already known, e.g. Profit [EUR], Temperature [°C], Depth [m]): | Hydrolysis, making fish meal and ensilage processes on the biomass<br>(45-90 degree, duration 1-48 hour)  |
| 8                   | When will the data be approx. ready (acc. to DoA, project month)                         | First round mounth 18   |
| 9                   | To whom it would be useful   | <i>Specify here the target user Food and feed producers, fishing industry, consumers, regulatory bodies</i>   |
| 10                  | Does similar data exist and what are the possibilities for integration and re-use?       | <i>No</i>   |



| Data Interoperability             |  |   |
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| 11                                | Are the data produced in the project interoperable?  | <i>Yes other scientists can use the data to compare or analyse further</i>  |
| 12                                | Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?                                   | <i>Yes – standard vocabulary terms will be used</i>   |
| 13                                | In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies. | <i>Yes – the descriptions are common</i>  |
| FAIR data / Providing open access |  |   |
| 14                                | The data archived will be  | Public at generation<br>o restricted to the consortium during the project's lifetime, 2019-2022 (all data is expected to be released no later than 2021) - Yes  |
| 15                                | If the data <b>cannot be shared</b> : describe reasons<br>Do you plan to deposit your data in open access repository (additionally to the ICES database)?            | <i>Specify the reasons: ethical rules of personal data, intellectual property, commercial, privacy-related, security-related</i><br><i>The commercial fisheries will have first access to the data for commercial IPR reasons</i><br><ul style="list-style-type: none"> <li>• Provide open access repository names;</li> <li>• How can the data be accessed (describe access procedures) and under which conditions (if there any restrictions)?</li> <li>• What necessary software and tools enable re-use of the data?</li> </ul> |
| 16                                | Are there any ethical or legal issues?<br>N/A  | <ul style="list-style-type: none"> <li>• Describe any issues that can have an impact on data sharing (personal data, confidential data)</li> <li>• For the experiments on fish – please mention how you will handle with ethical issues (and attach files if needed, such certificates or permissions for experiments etc.)</li> </ul>  |



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| 1                   | Project Partner and responsible person (for MEESO DMP) and contact e-mail             | MFRI<br>Ástþór Gíslason<br>astthor.gislason@hafogvatn.is   |
| <b>DATA SUMMARY</b> |   |  |
| 2                   | Data set reference and name   | MEESO partner name: MFRI<br>Country code: IS<br>Number of MEESO WP: WP2 and WP4<br>Data set number/numbers – will be inserted by project coordinator upon delivery of each of the data set:  |
| 3                   | What is a purpose of these data to the objectives of MEESO?                           | <i>State the purpose of the data collection/generation and explain the relation to the objectives of the project. Use DoA, incl. MEESO deliverable(s)</i><br>To estimate acoustic abundance of target species and map temporal trend of abundance (D4.1 and D4.3)<br>Determine vital rates and effect of environmental parameters on growth, to explore distribution of the biomass of the target species in relation to key environmental variables (D4.2 and D4.3). Determine abundance and size spectra of marine snow particles derived from VPR (D4.4).   |
| 4                   | Data set composition: describe sub-data sets (if applicable) and responsible partners | <i>Describe your data incl. data type(s) and format(s) and sub-data sets (if available)</i><br>a) Length/age and weight data for target species.<br>b) Biological data (growth, maturity, sex-ratio, IGS, fecundity) for target species.<br>c) Explanatory variables such as Depth, Temperature, Salinity, Oxygen, light attenuation (), chlorophyll ().<br>d) Plankton and marine snow abundance.<br>e) Acoustic abundance of target species during MEESO project and from time series in the Irminger Sea and adjacent waters.<br>f) Acoustic beam data.<br>g) Scientific pelagic trawl survey data: station information (lat, long, depth), weight and number of individuals by station, length of individuals. |
| 5                   | Expected size of the data   |  |
| 6                   | Are the data:   | o New data will be collected from national surveys, i.e. mackerel survey and redfish survey in the Irminger Sea and adjacent waters  |





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|                              |  | o Older acoustic data will be from the redfish survey in the Irminger Sea   |
| 7                            | Variables and scales (if already known, e.g. Profit [EUR], Temperature [°C], Depth [m]):   | <p>1. Parameters / units: Length [mm], Weight [gr], Age [year], Biomass per ESDU per specie [kg/m], NASC per ESDU per specie [m/n.mi.<sup>2</sup>], total biomass per specie [tonnes], plankton [number/m<sup>3</sup>], Temperature [°C], Salinity [PSU], Depth [m], Oxygen [ml/l, and %], Chla [µg/l]), latitude and longitude [dd:mm:ss], Date and hour [GMT]</p> <p>2. Area covered:</p> <p>a) and b) Data will be collected by MEESO surveys in years 2020, 2021.</p> <p>c) to g) Irminger Sea and adjacent waters, mainly south of Iceland</p> <p>3. Spatial resolution:</p> <p>a) and b) MEESO surveys areas</p> <p>c) to g) 55°N-66°N</p> <p>4. Time span: e) ca. 1993-2015, f) and g) 2020, 2021,</p> <p>5. Temporal resolution: annual</p> |
| 8                            | When will the data be approx. ready (acc. to DoA, project month)   | M23 and M36   |
| 9                            | To whom it would be useful   | The data will be useful to eco-physiologists and stock assessment scientists running models   |
| 10                           | Does similar data exist and what are the possibilities for integration and re-use?   | Information can be obtained from old publications and from the MFRI data base from older surveys in the Irminger Sea and adjacent waters 1992-2015.   |
| <b>Data Interoperability</b> |  |   |
| 11                           | Are the data produced in the project interoperable?  | The major principle in data interoperability practised in MEESO is that data exchange and re-use between researchers, institutions, organisations, countries, etc., and the potential for re-combinations with different datasets from different origins is maximised. The data formats and any vocabularies that are referred to will be properly documented and described, ideally already recognized domain or international standards will be adopted.  |
| 12                           | Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability? | Yes.  |



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| 13                                       | In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies. | Yes.  |
| <b>FAIR data / Providing open access</b> |  |   |
| 14                                       | The data archived will be  | Restricted to the consortium during the project's lifetime, 2019-2022 (all data is expected to be released no later than 2022)                |
| 15                                       | If the data <b>cannot be shared</b> : describe reasons<br>Do you plan to deposit your data in open access repository (additionally to the ICES database)?            | Acoustic-based abundance data (acoustic data, associated trawl data and environmental data, i.e. CTD) will be deposited in the ICES database. |
| 16                                       | Are there any ethical or legal issues?   | No  |



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| 1                   | Project Partner and responsible person (for MEESO DMP) and contact e-mail             | WMU<br>Mary S. Wisz<br><a href="mailto:msw@wmu.se">msw@wmu.se</a>  |
| <b>DATA SUMMARY</b> |   |  |
| 2                   |   | MEESO partner name: MSW<br>Country code: SE<br>Number of MEESO WP: 7<br>Data set number/numbers – will be inserted by project coordinator upon delivery of each of the data set :  |
| 3                   | What is a purpose of these data to the objectives of MEESO?                           | <i>State the purpose of the data collection/generation and explain the relation to the objectives of the project. Use DoA, incl. MEESO deliverable(s)</i><br><ol style="list-style-type: none"> <li>1. The transcripts of interviews for Task 7.1 will inform the policy analyses on biodiversity, carbon and fisheries policies in the Northeast Atlantic (D7.1)</li> <li>2. The summary GIS policy maps will help to visualise the locations where various policies apply for biodiversity, carbon and fisheries policy and will be used in D7.1 and D7.4.</li> <li>3. The social cost of carbon GIS maps will help to visualise the value of this parameter by location (resolution to be determined by the data to be received from other WPs, yet to be determined) and will inform policy briefings D7.4 and scientific publication D7.3.</li> </ol> |
| 4                   | Data set composition: describe sub-data sets (if applicable) and responsible partners | <i>Describe your data incl. data type(s) and format(s) and sub-data sets (if available)</i><br><ol style="list-style-type: none"> <li>1. Transcripts of semi-structured interviews with researchers, governance experts, representatives from industry, and possibly focal group discussions depending on the possibilities available due to Covid 19. These data will be collected between M9 and finalised by M22.</li> <li>2. Maps highlighting biodiversity, carbon and fisheries policies for the NorthEast Atlantic. Finalised by M22</li> <li>3. GIS Maps of the value of social cost of carbon by location (resolution to be determined by the data to be received from other WPs, yet to be determined)</li> </ol>  |



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| 5  | Expected size of the data  | <i>If known</i><br><i>Negligible size, &lt; 1GB</i>  |
| 6  | Are the data:  |  |
| 7  | Variables and scales (if already known, e.g. Profit [EUR], Temperature [°C], Depth [m]):   | <i>Specify:</i><br>GIS Maps of Social Cost of Carbon (3) will be in Economic units (Euro)  |
| 8  | When will the data be approx. ready (acc. to DoA, project month)   | M22 Transcripts of interviews available (1)<br>M22 Maps of biodiversity, carbon and fisheries policy (2)<br>M46 Maps of social cost of carbon (3)            |
| 9  | To whom it would be useful   | Ocean policy analysts, ocean governance researchers  |
| 10                                       | Does similar data exist and what are the possibilities for integration and re-use?   | NA   |
| <b>Data Interoperability</b>             |  |  |
| 11                                       | Are the data produced in the project interoperable?  | Yes  |
| 12                                       | Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?                                   | Yes  |
| 13                                       | In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies. | NA   |
| <b>FAIR data / Providing open access</b> |  |  |
| 14                                       | The data archived will be  | Restricted to the consortium during the project's lifetime, 2019-2022, and all released by M46   |
| 15                                       | If the data <b>cannot be shared</b> : describe reasons<br>Do you plan to deposit your data in open access repository (additionally to the ICES database)?            | The interviews will be anonymised, following standard practice.<br>The data may be made available for deposit if required and permitted by ethics clearance. |
| 16                                       | Are there any ethical or legal issues?   | The interview questions will be reviewed by a social science research ethics committee prior to conducting the interviews                                    |



|              |   |   |
|--------------|---|---|
| 1            | Project Partner and responsible person (for MEE SO DMP) and contact e-mail            |   |
|              |   | IMR/Webjørn Melle/webbjorn@hi.no and Thor Klevjer/thor.klevjer@hi.no  |
| DATA SUMMARY |   | Cruise data collected during a cruise dedicated to mapping of mesopelagic biomass, cruise 2016115   |
| 2            | Data set reference and name   | IMR   |
|              |   | NO  |
|              |   | 2,4   |
|              |   |   |
| 3            | What is a purpose of these data to the objectives of MEE SO?                          | "A) Biomass estimation of micronekton",<br>"B) Measuring vertical distribution of micronekton",<br>"C) Description of environmental variables"  |
| 4            | Data set composition: describe sub-data sets (if applicable) and responsible partners | A) Acoustic single beam data from hull mounted transducers<br>B) "Trawl_biomass_data",<br>C) "Submerged_acoustic_count",<br>D) "OPC_particle_size_spectra",<br>E) "VPR_particle_size_spectra",<br>F) "Mesozooplankton_catch_data",<br>G) "Niskin_bottle_derived_data",<br>H) "CTD_vertical_profile",<br>I) "Irradiance_vertical_profile_data",<br>J) "Underway_continuous_electronic_data",<br>K) "Vessel_metadata" |
| 5            | Expected size of the data   |   |
| 6            | Are the data:   |   |
|              |   | Data were collected during an IMR cruise in 2016  |
| 7            |   | 1. See point 4  |



|                              |  |   |
|------------------------------|--|---|
|                              | Variables and scales (if already known, e.g. Profit [EUR], Temperature [°C], Depth [m]):   | 2. Offshelf parallel to Norwegian coastline from Tromsø to Aalesund, with gradient from Norwegian coast into Norwegian Sea on the Svinoey transect. |
|                              |  | 3. Continuous hull-mounted acoustics, intermittent trawling and sampling. Varies according to data type.  |
|                              |  | 4. 14 days  |
|                              |  | 5. See above, varies according to data type   |
|                              |  |   |
| 8                            | When will the data be approx. ready (acc. to DoA, project month)   | Month 24  |
| 9                            | To whom it would be useful   | General ecologists, stock assessment scientists. Management.  |
| 10                           | Does similar data exist and what are the possibilities for integration and re-use?   | NO, YES, YES  |
| <b>Data Interoperability</b> |  |   |
| 11                           | Are the data produced in the project interoperable?  | Yes   |
| 12                           | Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability? | Yes   |



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|-----------------------------------|--|---|
| 1<br>3                            | In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies? | Yes   |
| FAIR data / Providing open access |  |   |
| 1<br>4                            | The data archived will be  | Public at generation  |
| 1<br>5                            | If the data <b>cannot be shared</b> : describe reasons   |   |
|                                   | Do you plan to deposit your data in open access repository (additionally to the ICES database)?  |   |
|                                   |  |   |
|                                   |  | Some data may be in a proprietary format, may need special software for access. |
| 1<br>6                            | Are there any ethical or legal issues?   | No  |
|                                   |  |   |

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| 1                   | Project Partner and responsible person (for MEESO DMP) and contact e-mail             | IMR/Webjørn Melle/webjorn@hi.no and Thor Klevjer/thor.klevjer@hi.no  |
| <b>DATA SUMMARY</b> |   | Cruise data collected during a cruise dedicated to mapping of mesopelagic biomass, cruise 2018106  |
| 2                   | Data set reference and name   | IMR  |
|                     |   | NO   |
|                     |   | 2,4  |
| 3                   | What is a purpose of these data to the objectives of MEESO?                           | "A) Biomass estimation of micronekton",<br>"B) Measuring vertical distribution of micronekton",<br>"C) Description of environmental variables"   |
| 4                   | Data set composition: describe sub-data sets (if applicable) and responsible partners | A) Acoustic single beam data from hull mounted transducers<br>B) "Trawl_biomass_data",<br>C) "Submerged_acoustic_count_trawl",<br>D) "Submerged_acoustic_count",<br>E) "OPC_particle_size_spectra",<br>F) "VPR_particle_size_spectra",<br>G) "Mesozooplankton_catch_data",<br>H) "Niskin_bottle_derived_data",<br>I) "CTD_vertical_profile",<br>J) "Irradiance_vertical_profile_data",<br>K) "Underway_continuous_electronic_data",<br>L) "Vessel_metadata",<br>M) "Continuous_In-trawl_images_of_organisms" |
| 5                   | Expected size of the data   |  |
| 6                   | Are the data:   |  |





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|    |  | Data were collected during an IMR cruise in 2018   |
| 7  | Variables and scales (if already known, e.g. Profit [EUR], Temperature [°C], Depth [m]): | <div>1. See point 4</div> <div>2. Transect from north-west of the British Isles towards the mid-Atlantic ridge.</div> <div>3. Continuous hull-mounted acoustics, intermittent trawling and sampling. Varies according to data type.</div> <div>4. 14 days</div> <div>5. See above, varies according to data type</div> |
| 8  | When will the data be approx. ready (acc. to DoA, project month)                         | Month 24   |
| 9  | To whom it would be useful   | General ecologists, stock assessment scientists. Management.   |
| 10 | Does similar data exist and what are the possibilities for integration and re-use?       | NO, YES, YES   |
|    | Data Interoperability  |  |
| 11 | Are the data produced in the project interoperable?                                      | Yes  |

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|----|--|----------------------|
| 12 | Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?                                   | Yes                  |
| 13 | In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies? | Yes                  |
|    | FAIR data / Providing open access  |                      |
| 14 | The data archived will be  | Public at generation |
|    |  |                      |
| 15 | If the data <b>cannot be shared</b> : describe reasons   |                      |
|    | Do you plan to deposit your data in open access repository (additionally to the ICES database)?  |                      |

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|    |  | Some data may be in a proprietary format, may need special software for access. |
| 16 | Are there any ethical or legal issues? | No  |
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|---------------------|---|--|
| 1                   | Project Partner and responsible person (for MEESO DMP) and contact e-mail |  |
|                     |   | IMR/Webjørn Melle/webjorn@hi.no and Thor Klevjer/thor.klevjer@hi.no  |
| <b>DATA SUMMARY</b> |   | Cruise data collected during a cruise dedicated to mapping of mesopelagic biomass, cruise 2019703  |
| 2                   | Data set reference and name   | IMR  |
|                     |   | NO   |
|                     |   | 2,4  |
|                     |   |  |
| 3                   | What is a purpose of these data to the objectives of MEESO?               |  |
|                     |   | "A) Biomass estimation of micronekton",<br>"B) Measuring vertical distribution of micronekton",<br>"C) Description of environmental variables" |



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| 4 | Data set composition: describe sub-data sets (if applicable) and responsible partners    |  |
|   |  | A) Acoustic single beam data from hull mounted transducers<br>B) "Trawl_biomass_data",<br>C) "Submerged_acoustic_count_trawl",<br>D) "Submerged_acoustic_count",<br>E) "OPC_particle_size_spectra",<br>F) "VPR_particle_size_spectra",<br>G) "Mesozooplankton_catch_data",<br>H) "Niskin_bottle_derived_data",<br>I) "CTD_vertical_profile",<br>J) "Irradiance_vertical_profile_data",<br>K) "Underway_continuous_electronic_data",<br>L) "Vessel_metadata",<br>M) "Continuous_In-trawl_images_of_organisms" |
| 5 | Expected size of the data  |  |
| 6 | Are the data:  |  |
|   |  | Data were collected during an IMR cruise in 2019   |
| 7 | Variables and scales (if already known, e.g. Profit [EUR], Temperature [°C], Depth [m]): | 1. See point 4   |
|   |  | 2. Transect from Cabo Verde to Bay of Biscay   |
|   |  | 3. Continuous hull-mounted acoustics, intermittent trawling and sampling. Varies according to data type.   |
|   |  | 4. 14 days   |
|   |  | 5. See above, varies according to data type  |
|   |  |  |
| 8 | When will the data be approx. ready (acc. to DoA, project month)                         | Month 24   |
| 9 | To whom it would be useful   | General ecologists, stock assessment scientists. Management.   |



|  |  |                      |
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| 10                                       | Does similar data exist and what are the possibilities for integration and re-use?   | NO, YES, YES         |
| <b>Data Interoperability</b>             |  |                      |
| 11                                       | Are the data produced in the project interoperable?  | Yes                  |
| 12                                       | Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?                                   | Yes                  |
| 13                                       | In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies? | Yes                  |
| <b>FAIR data / Providing open access</b> |  |                      |
| 14                                       | The data archived will be  | Public at generation |
| 15                                       | If the data <b>cannot be shared</b> : describe reasons   |                      |



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|----|---|---|
|    | Do you plan to deposit your data in open access repository (additionally to the ICES database)? |   |
|    |   |   |
|    |   | Some data may be in a proprietary format, may need special software for access. |
| 16 | Are there any ethical or legal issues?  | No  |
|    |   |   |
|    |   |   |

|   |   |  |
|---|---|--|
| 1 | Project Partner and responsible person (for MEESO DMP) and contact e-mail |  |
|   |   | IMR/Webjørn Melle/webjorn@hi.no and Thor Klevjer/thor.klevjer@hi.no  |
|   | DATA SUMMARY  | Cruise data collected during a cruise crossing the Atlantic as part of the Euro-BASIN project  |
| 2 | Data set reference and name   | IMR  |
|   |   | NO   |
|   |   | 2,4  |
|   |   |  |
| 3 | What is a purpose of these data to the objectives of MEESO?               | "A) Biomass estimation of micronekton",<br>"B) Measuring vertical distribution of micronekton",<br>"C) Description of environmental variables" |
| 4 |   |  |



|    |  |   |
|----|--|---|
|    | Data set composition: describe sub-data sets (if applicable) and responsible partners    | <p>A) Acoustic single beam data from hull mounted transducers</p> <p>B) "Trawl_biomass_data",</p> <p>C) "Submerged_acoustic_count_trawl",</p> <p>D) "Submerged_acoustic_count",</p> <p>E) "OPC_particle_size_spectra",</p> <p>F) "VPR_particle_size_spectra",</p> <p>G) "Mesozooplankton_catch_data",</p> <p>H) "Niskin_bottle_derived_data",</p> <p>I) "CTD_vertical_profile",</p> <p>J) "Irradiance_vertical_profile_data",</p> <p>K) "Underway_continuous_electronic_data",</p> <p>L) "Vessel_metadata",</p> |
| 5  | Expected size of the data  |   |
| 6  | Are the data:  | Data were collected during the Norwegian cruise as a contribution to the Euro-BASIN project in 2013, but some of the data has not been worked up until recently.  |
| 7  | Variables and scales (if already known, e.g. Profit [EUR], Temperature [°C], Depth [m]): | <p>1. See point 4</p> <p>2. Transect from Bergen to Reykjavik to Nuuk, then return, crossing Norwegian Sea, Iceland Sea, Irminger Sea and Labrador Sea.</p> <p>3. Continuous hull-mounted acoustics, intermittent trawling and sampling. Varies according to data type.</p> <p>4. 6 weeks</p> <p>5. See above, varies according to data type</p>  |
| 8  | When will the data be approx. ready (acc. to DoA, project month)                         | Month 24  |
| 9  | To whom it would be useful   | General ecologists, stock assessment scientists. Management.  |
| 10 | Does similar data exist and  | NO, YES, YES  |



|                                   |  |   |
|-----------------------------------|--|---|
|                                   | what are the possibilities for integration and re-use?   |   |
|                                   | Data Interoperability  |   |
| 11                                | Are the data produced in the project interoperable?  | Yes   |
| 12                                | Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?                                   | Yes   |
| 13                                | In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies? | Yes   |
| FAIR data / Providing open access |  |   |
| 14                                | The data archived will be  | Public at generation                            |
| 15                                | If the data <b>cannot be shared</b> : describe reasons   |   |
|                                   | Do you plan to deposit your data in open   | Some of the data are already publicly available |





|    |  |   |
|----|--|---|
|    | access repository (additionally to the ICES database)? |   |
|    |  |   |
|    |  | Some data may be in a proprietary format, may need special software for access. |
| 16 | Are there any ethical or legal issues?                 | No  |
|    |  |   |
|    |  |   |