D10.2: Release of the Data Management Plan

Marine Ecosystem Restoration in Changing European Seas
MERCES
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DISSEMINATION LEVEL

PU	Public	X

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1. SUMMARY

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Deliverable 10.2 has been redacted by ECOREACH, GAIA and UNIVPM. This deliverable refers to the initial Data Management Plan (DMP) elaborated for MERCES and related to the Task 10.5. This DMP describes which kind of datasets will be generated during the project, and how they will be archived and preserved for usage during and beyond the lifespan of the project. Since the datasets are strictly dependent upon reviewing scientific literature and field activities (which are in course at the moment) a detailed listing of the amount, kind and scope of datasets generated during the project is not possible at this early stage of the project. For this reason, the DMP will be continuously updated and revised every year during the project.

Since MERCES participates in the Pilot on Open Research Data, this version of the DMP has been redacted according to the H2020 Programme Guidelines on "FAIR Data Management in Horizon 2020", available at http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf and at https://www.openaire.eu/opendatapilot-dmp.

2. Introduction

Since MERCES will participate in the Pilot on Open Research Data, all the data resulting from the project, including associated metadata and datasets related to scientific publications, will be deposited into a research data repository (e.g., Zenodo) and, where possible, the Creative Commons Licence (CC-BY or CC0 tool) will be attached to the data.

The research data, depending also on their typology, will be deposited in official repositories (e.g., Zenodo). Moreover, a specific section in the restricted area of the project website will be dedicated to the allocation of the data. The data, including associated metadata, needed to validate the results presented in scientific publications, will be promptly made available for access, mining, exploitation, reproduction and dissemination at least by the project partners and the stakeholders. In the same section of the project website, any tool, algorithm or software eventually produced within the project lifespan and needed to manage the open data will be also made available. In order to ensure that these data and tools remain available during the project after-life, this section of the website will be maintained for at least two years after the end of the project. In any case, this procedure will not change the obligation to protect results in Article 27, the confidentiality obligations in Article 36, the security obligations in Article 37 or the obligations to protect personal data in Article 39.

Matters relating to the management of intellectual property of the results, use of foreground, exclusions and access rights will be specifically covered by the MERCES Consortium Agreement (based on the DESCA model and agreed and signed by all partners). In particular, as far as the Intellectual Property Rights are concerned, the results will be owned by the Party that generates them. In the case of joint results, unless otherwise agreed, the ownership, transfer of ownership, the dissemination of own or other Party's unpublished

Results or Background (including thesis dissertations), and the use of names, logos and trademarks will be regulated by the MERCES Consortium Agreement, which will assure the suitable results protection measures and legitimate interests of all parties involved in the project.

To ensure the widest access possible to science produced by MERCES, all datasets and scientific publications will be deposited in the dedicated Zenodo community, in the account already created for MERCES project (i.e., "MERCES project" community). Zenodo has been selected as repository platform since it is free and it allows Horizon 2020 grant support since the data are automatically exported to OpenAIRE. Furthermore, it allows to have Digital Object Identifier (DOI, both for datasets and scientific publications), as well as restricted usage in case of need for embargo periods (both for datasets and scientific publications).

All partners will strive to publish articles in open access. This will enhance the transparency of MERCES research results, ensuring at the same time immediate access to data and results by policy and/or business, by stakeholders, end-users and scientists. It is also envisaged that the partners will be able to produce approximately 100 contributions to international scientific symposia and business conferences. Moreover, it has been envisaged that MERCES will coordinate at least 3 special sessions organized in the framework of international symposia.

3. General characteristics and typology of datasets

MERCES will collect and collate data spanning from scientific and environmental to socio-economic contexts, mainly in numerical and textual formats. All different data sets will be allocated in the internal (web site private area) and public (Zenodo) repositories in order to be:

1) discoverable (e.g. assigning each data set to a Digital Object Identifier, DOI);

2) accessible (e.g., providing each data set with clear information about their scope, licences, rule for commercial exploitation and re-usage);

3) measurable and intelligible (ready for scientific scrutiny and peer review);

4) useable beyond their original purpose (e.g. ensuring data preservation during the project's after life);

5) interoperable to specific quality standards (e.g. adhering to standards for data annotation and exchange, compliant with multiple software applications, and allowing recombination with different datasets from different sources).

3.1 Datasets from literature

Datasets created from literature review (e.g. metadata on existing habitats, census of impacted deep sea ecosystems), as datasets foreseen in WP1, will be deposited on Zenodo, as well as made available in open international portals, under the responsibility of WP1 leaders (HCMR and NUIG). Appropriate metadata

created for each dataset will be based on the Infrastructure for Spatial Information in the European Community (INSPIRE) specifications (listed at http://inspire.jrc.ec.europa.eu/, http://inspire-geoportal.ec.europa.eu/) and will be compatible with EMODNET/EuSeaMap/MARATLAS portals requirements. Where appropriate the integration of mapping exercises and knowledge related to habitats and ecosystem services changes will be based on the MAES process (Mapping and Assessment of Ecosystems and their Services, http://biodiversity.europa.eu/maes of the BISE: Biodiversity Information System for Europe). MERCES will interact with MAES for typology, standardization, classification and visualization.

3.2 Datasets on environmental-, biological/communities-, ecosystem services-, legal and policy-, socio-economic- and business-related data

Datasets created in all WP1-8 will be deposited in Zenodo, in accessible formats (e.g., excel, access, etc.) depending on the typology of the data and the partner responsible for each dataset. Once in Zenodo, each dataset will include all raw data as well as all the info related to the data (e.g., area, environment, ecosystem typology, in which the data have been collected). Moreover, the datasets will be accompanied by the name of the data's owner, a brief description and a DOI. In the cases in which a period of embargo will be necessary, the datasets will be temporary protected by a password. Once the embargo will finish, the datasets will be immediately made available. This kind of datasets will be made available for internal usage among MERCES partners, by depositing them also on the restricted area of MERCES web site, with the associated link to Zenodo repository. This will enhance the transparency of MERCES research results, ensuring at the same time immediate access to data and results by policy and/or business, by stakeholders, end-users and scientists.

3.3 Scientific publications

MERCES foresees the publication of top-level and specialized papers in excellent quality journals (e.g. Restoration Ecology, Ecological Engineering) highlighting the outputs of the project. All partners will strive to publish articles in open access ("gold open access"). To ensure the widest access possible to the science produced by MERCES, all scientific publications will be deposited in the dedicated Zenodo community.

All the papers, including the related datasets and associated metadata, will be deposited into a research repository (i.e., Zenodo) and where possible, the Creative Commons Licence (CC-BY or CC0 tool) will be attached to the papers. In the cases in which a period of embargo will be necessary, the papers and datasets will be temporary protected by a password. Once the embargo will finish, the papers will be immediately made available. This kind of datasets will be made available for internal usage among MERCES partners, by depositing them also on the restricted area of MERCES web site, with the associated link to Zenodo repository.

In those cases in which the scientific papers do not have the full open access ("gold open access") to the version of the paper edited by the Publisher, several options can be considered. Following the Publishers' indications, the papers could be made available under the "green open access" (as example see https://www.elsevier.com/about/open-science/open-access), or by the self-archiving (publishing online the pdf version of the post-print of the article, in which will be added all the information requested by the specific Publisher, as example see http://olabout.wiley.com/WileyCDA/Section/id-406071.html), or by the personal web page of the main author. In each case, the options made by the Publisher will be followed. At the same time the paper will be added in the MERCES community in Zenodo, following one of the abovementioned options or a combination of them. Once on Zenodo, the paper will be accompanied by all the information requested by the Horizon2020 funding program, a Digital Object Identifier (DOI), the all related metadata, and by the link to the Journal web page or to the personal web page of the main author. The pdf file upload on Zenodo will be available or protected by a password, depending on the options given by the Publisher. In the case by which the Publisher will not allow to make available the pdf file, the link to the personal web page of the main author will be added, where the pdf file (post-print version, according to the Publisher option) will be uploaded. In the case by which the main author does not have a personal web page, it will be created on the MERCES web site.

In the MERCES web site will be also created a dedicated page, with the entire list of scientific publications, with the DOI and the direct links to Zenodo products.

4. Data sharing

All the datasets and publications will be deposited in the MERCES community on Zenodo, in this way all products will be immediately identified as MERCES outputs. The use of citable and permanent DOIs for all datasets and scientific publications archived in Zenodo ensures the long term availability of MERCES data. If necessary, the access to datasets and the scientific publications will be protected by a password during an embargo period. Short embargo periods for datasets or scientific publications could be required by the editorial policies of scientific journals. Once the embargo will finish, the open access will be immediately ensured. For each product, a brief description and a DOI will be provided, in order to make each dataset and publication identifiable and univocally citable.

For the internal (among partners) and external (stakeholders, general public) usage and sharing of datasets, specific sections for the allocation of datasets in the MERCES website have been created. In particular, in the restricted area there will be the datasets files as well as their link to Zenodo repository, whereas in the public area of the web site, there will be the links to Zenodo. For each dataset, also a brief description of the data and the DOI will be provided.

5. Archiving and preservation (including storage and backup)

Long-term archiving (more than 5 years) and a backup of these datasets will be guaranteed by the institutes responsible for the Data Management Plan (ECOREACH and UNIVPM). Each dataset will be identified by its own DOI.