

Clay Tectonics

D5.1 Data Management Plan

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Executive Summary

Throughout the project, several WP tasks will generate data that feeds different WPs and their deliverables. A well-structured data management plan (DMP) covers the description of data and metadata, their storage and long-term preservation, the designation of responsible persons, the handling of highly sensitive data, and the open access to and sharing of research data. The data generated will be reserved in an IODE and ICSU accredited database (e.g. Marine Data Archive; mda.vliz.be) on a dedicated server, managed by VLIZ. The secured database will keep the information stored beyond 5 years after the end of the project, and move data requiring longer-term storage to a dedicated "safe" (online) storage medium. All data will be quality controlled, secured, provided with metadata, and stored according to the FAIR principles (findable, accessible, interoperable, re-usable). All data will be made available in a trusted repository (Integrated Marine Information System; IMIS). Metadata that illustrates the existence of a dataset is always disclosed publicly, through IMIS and relevant data platforms, unless there is an explicit request not to do so.

1. Introduction

The Data Management Plan (DMP) was created using the DMP Online tool. This platform is a web-based tool that supports researchers to develop data management plans. It contains the latest funder templates and best practice guidelines to support users to create good quality data management plans.

To create this DMP, the 'VLAIO DMP' template was used. This document represents the first edition of the DMP, based on the current knowledge within the project consortium. The DMP will be adapted regularly along the duration of the project, conforming with gained insight of different work packages.

The data management plan is included hereafter, formatted by the DMP Online tool:

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A Data Management Plan created using DMPonline.be

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Funder: Vlaams Agentschap Innoveren & Ondernemen (VLAIO)

Template: VLAIO cSBO DMP (Flemish Standard DMP)

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VLAIO DMP (Flemish Standard DMP)

1. Research Data Summary

Dataset Name	Description	New or reused	Digital or Physical	Digital Data Type	Digital Data format	Digital data volume (MB/GB/TB)	Physical volume
Seismic/Acoustic data - Sparker	2D seismic reflection profiles acquired with a sparker source and single- or multi-channel streamer	Generate new data + Reuse existing data	Digital	Observational (raw) + Compiled/aggregated (processed)	.sgy	< 5TB	
Seismic/Acoustic data - Innomar parametric echo-sounder	2D acoustic sub-bottom profiles acquired with an Innomar parametric echosounder	Generate new data + Reuse existing data	Digital	Observational (raw) + Compiled/aggregated (processed)	.ses3 ; .raw ; .sgy	< 5TB	
Seismic/Acoustic data - TOPAS parametric echo-sounder	2D acoustic sub-bottom profiles acquired with a TOPAS parametric echosounder	Generate new data + Reuse existing data	Digital	Observational (raw) + Compiled/aggregated (processed)	.raw ; .sgy	< 1TB	
Seismic/Acoustic data - Chirp	2D acoustic sub-bottom profiles acquired with a (AUV-mounted) chirp system	Generate new data	Digital	Observational (raw) + Compiled/aggregated (processed)	.sgy	< 100GB	
Multibeam echosounder data	Bathymetry, backscatter and water column data acquired with EM2040 multibeam echosounders	Generate new data	Digital	Observational (raw) + Compiled/aggregated (processed)	.bwxraw ; .bwxres ; .all ; .wcd ; .asc	< 10TB	
Underway data surveys	Underway data logged during the acoustic surveys using the RV Simon Stevin MIDAS system (incl. navigation, meteo)	Generate new data	Digital	Observational	.csv	< 100MB	
Vibrocores	Sediment cores obtained using the VLIZ vibrocorer (length = 3 or 4.5m)	Generate new data	Physical				0.5 m3
Descriptions, photographs and analyses of vibrocores	Generate new data	Digital	Observational + Experimental	.xlsx, .txt, .pdf, .tiff	< 1GB		

Over the past decades, UGent (RCMG) and VLIZ have acquired a significant amount of seismic data within in the Belgian part of the North Sea (incl. the Princess Elisabeth-zone) using various instruments. In addition, commercial data collected in the context of the Princess Elisabeth-tender will also be made available and will be assessed. These datasets, together with the already existing literature on the topic (e.g. Henriët et al. 1983, Henriët et al. 1988, De Batist 1989, Verschuren 1992), will be reviewed.

- No

- No

- Yes

All datasets have potential for commercial valorization, as this is high value data for multiple types of human activities in the Belgian Part of the North Sea. Commercial valorization is allowed, as the project will share data under the CC-BY license.

- Yes

Data transfers from 3rd parties will be subjected to a data transfer agreement. Each DTA will provide specific regulations or restrictions, based on the discussions between all parties. In any case, the project aspires as little restrictions as possible.

- Yes

All datasets will be shared under a CC-BY license, requiring clear references to the data owner when publishing data or related products.

2. Documentation and Metadata

Metadata on the utilized equipment during data capture will be adequately described when storing the datasets. To do so, existing metadata templates for seismic and acoustic data of the Marine Data Archive will be used.

- Yes

Metadata on the utilized equipment during data capture will be adequately described when storing the datasets. To do so, existing metadata templates for seismic and acoustic data of the Marine Data Archive will be used.

3. Data storage & back-up during the research project

Data will be stored on the Marine Data Archive, accompanied by already stored datasets from previous campaigns. During the project, analyses will be conducted on the storage procedure, to work towards a dedicated data system for seismic, drilling and acoustic data.

The Marine Data Archive provides dedicated servers that are backed-up regularly. Flanders Marine Institute is responsible of the maintenance of both MDA and the back-up.

- Yes

Flanders Marine Institute is responsible for the capacity of MDA, and ensures users that additional capacity can be created when needed.

MDA is only accessible with given credentials. Each user of MDA only gets access to specific folders and repositories, ensuring that only project partners can access necessary data files. To receive credentials, users must pass a check by the Data Center of Flanders Marine Institute.

No costs are allocated within the project. Costs of storage and backup of MDA are the responsibility of Flanders Marine Institute.

4. Data preservation after the end of the research project

All datasets will be retained for a period beyond five years after the end of the project. In any case, Flanders Marine Institute guarantees the longevity of the MDA data system. In extreme cases, Flanders Marine Institute will ensure that datasets are transferred to equivalent storage.

Data will be stored on the Marine Data Archive, accompanied by already stored datasets from previous campaigns. During the project, analyses will be conducted on the storage procedure, to work towards a dedicated data system for seismic, drilling and acoustic data.

No costs are allocated within the project. Costs of storage and backup of MDA are the responsibility of Flanders Marine Institute.

5. Data sharing and reuse

- Yes, in an Open Access repository

All data will be made available in an open access repository (IMIS, other), under the CC-BY license. During the project, analyses will be conducted on the storage procedure, to work towards a dedicated data system for seismic, drilling and acoustic data.

All data will be made available in an open access repository (IMIS, other), under the CC-BY license.

- Yes, Intellectual Property Rights

All datasets will be shared under a CC-BY license, requiring clear references to the data owner when publishing data or related products.

Data transfers from 3rd parties will be subjected to a data transfer agreement. Each DTA will provide specific regulations or restrictions, based on the discussions between all parties. In any case, the project aspires as little restrictions as possible.

All data will be made available in an open access repository, the Integrated Marine Information System (IMIS), under the CC-BY license. Additionally the project will look into the flow of metadata towards other data platforms and repositories, to make the data as findable as possible. During the project, analyses will be conducted on the storage procedure, to work towards a dedicated data system for seismic, drilling and acoustic data.

All datasets will be made available immediately at the end of the project. In cases where it is possible, datasets might already be made available during the project. Data transfers with 3rd parties might also occur during the project.

CC-BY, with clear reference to the data owner.

- Yes

All datasets in IMIS will be provided a DOI.

Actions needed to make data available in IMIS and to flow metadata towards relevant repositories are covered by the budget within the work package. No additional costs are allocated, as the maintenance of the IMIS data system and other relevant repositories are the responsibility of Flanders Marine Institute.

6. Responsibilities

The researchers will document the data and metadata as good as possible, under the guidance and assistance of the datacenter of Flanders Marine Institute

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