

*Unlocking the potential of macroalgae for a thriving European blue bioeconomy*



# Updated Data Management Plan

SEAMARK DELIVERABLE 11.3

Nofima



Co-funded by  
the European Union

This project has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No 101060379. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union nor the European Research Executive Agency (REA). Neither the European Union nor REA can be held responsible for them.

# SEAMARK DELIVERABLE 11.3: UPDATED DATA MANAGEMENT PLAN

OPEN ACCESS

**Patrick Berg Sør Dahl<sup>1</sup>**

**Edited by:**

Patrick B. Sør Dahl, Nofima, Tromsø,  
Norway, and Maya Miltell,  
SUBMARINER Network for Blue  
Growth, Berlin, Germany

**Reviewed by:**

Floor Marsman and Urd Grandorf  
Bak, Ocean Rainforest Sp/F, Kaldbak,  
Faroe Islands.

**Document Status:** Finalised

**Dissemination Level:** PU – Public

**Due Date:** 30.06.2025

**Submission Date:** 30.06.2025

**Accepted Date:** 26.06.2025

**Updated Date:** 07.10.2025

**Deliverable Reference:** D11.3

**Work Package / Task:**

11 / T11.7 Develop a data  
management plan

**Total number of pages (incl.  
annexes):**

5

**Keywords:**

algae, macroalgae, seaweed, data  
management, open access

**Front page picture:**

Algaia

<sup>1</sup>Nofima, Tromsø, Norway.

**Abstract**

This deliverable catalogue the datasets present in the project at M36, whether they can be made openly available at project end, and which repositories they will be uploaded to. The deliverable contains a list of 49 datasets.

## LIST OF FIGURES

Figure 1: Project progress and timing of deliverables..... 3

## LIST OF TABLES

Table 1: Status of dataset forms over the course of the project..... 4  
 Table 2 List of the datasets present at M36 and associated deliverables..... 5

## LIST OF ABBREVIATIONS

Abbreviation	Description
DMP	Data Management Plan
HE	Horizon Europe
WP	Work Package

## CONTENTS

**1. INTRODUCTION..... 3**  
**2. METHODOLOGY ..... 3**  
 CONFIDENTIAL DATASETS ..... 4  
**3. RESULTS ..... 4**  
**4. CONCLUSION..... 4**  
**REFERENCES..... 4**  
**DATA SETS ..... 4**  
**APPENDIX ..... 5**

# 1. INTRODUCTION

The overall goal of WP11 is to manage the project from the start-up phase to the project completion. To achieve this goal several tasks are to be done, one being to develop a data management plan (DMP). The DMP will include three requirements: 1) The collected research data should be deposited in a data repository, 2) The project will have to take measures to enable third parties to access, mine, exploit, reproduce and disseminate this research data, 3) The DMP has to be accessible for verification and reuse, and how it will be curated and preserved. Fulfilling the two last requirements is the main content of this task, and the DMP will outline the degree, means, and timing of data access for third parties. The DMP is periodically updated during the project and this deliverable is the M36 update.

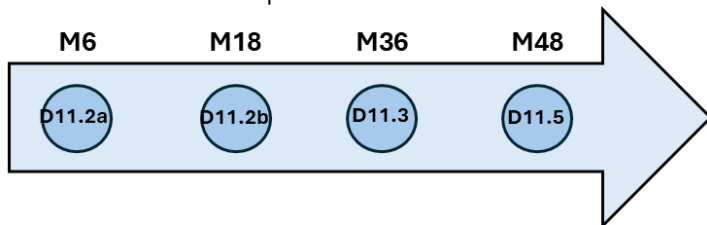


Figure 1: Project progress and timing of deliverables.

All partners were asked to fill in forms describing the datasets they planned to generate during the project lifetime. The forms provide a detailed description of the content of the datasets, how it will be preserved and whether it will be made available for further use after the project ends. When datasets are finalized, they will be uploaded to either a field related repository or an in-house repository belonging to an institution. If no such repository exists, data will be uploaded to a general repository, e.g. Zenodo.

In all projects financed by the Horizon Europe program, an overall goal is to help enable reuse of research data, either collected or generated throughout the project. Over the course of a project, considerable amounts of data are generated. If this data is not sufficiently archived, shared or made available for reuse later on, it can lead to unnecessary duplication of effort in other projects and it discourages transparency in research.

Horizon Europe aims to make data FAIR:

- Findable
- Accessible
- Interoperable
- Reusable

As a way of ensuring good data management, a DMP was developed. The European Commission has created a template for Horizon Europe projects to follow which contains the following information:

- Summary of the data
- Plans to make the data FAIR

- Other research outputs
- Allocation of resources
- Data security
- Ethics
- Other issues

The purpose of the DMP is to give an overview of the data produced or collected during the project, along with plans for making it publicly available. The DMP lists the datasets, identifies which ones can be made public and which ones must remain confidential, and plans to upload the public datasets to an open repository. The DMP will make sure that the data will be properly collected, identified, stored, registered, and preserved and that third parties can access the research data.

A DMP is a living document that is updated periodically. As the project progresses, participants of the project will gain a better understanding of the data being used and will be able to modify the information accordingly. Dataset descriptions are expected to be updated over time, certain datasets possibly removed, and the level of information on the data is expected to increase during these updates. The final version of the DMP is due at M48, at the end of the project. This final version will contain descriptions of all datasets used in the project. At this stage, all data that can be made openly available will be uploaded to open repositories, and a link to access the data will be present in the dataset description.

The DMP is related to all activities in the project where data is generated or collected. The target audience is mainly other researchers who may benefit from using the data.

This document contains tables of the datasets identified so far, the repositories planned to be used for uploading the data once ready, and links between datasets and deliverables. The dataset descriptions themselves will be uploaded on Zenodo.

The goal of ensuring unrestricted access to scientific output also concerns scientific publications as well as research data. As per the Horizon Europe (HE) requirements, all peer-reviewed publications must be made available in open access and deposited in a repository immediately upon publication without an embargo period. This means that in addition to being published in an open access journal, they must be made available in an institutional-, subject-based- or general repository (e.g. Zenodo). Research data and the scientific publication they underpin should be linked either by being referenced with a DOI or by being published together.

## 2. METHODOLOGY

SeaMark uses the DMP template, made by the European Commission and ARGOS, an online DMP tool suggested in the HE programme guide. To simplify contributions from participants, we sent them the template to fill out and send back to us. We then entered all information from the templates to ARGOS, instead of asking all participants to create an

account on AGROS and fill it in themselves. This allows us a better overview and control over the dataset descriptions.

The DMP and subsequent updates created with the support of ARGOS will be uploaded to Zenodo, with each version assigned its own DOI.

When datasets are finalized, they will be uploaded to either a field related repository or to an in-house repository belonging to an institution. If no such repository exists, data will be uploaded to a general repository, for which Zenodo has been chosen. A SeaMark community has been created on Zenodo to group all datasets under the same project Grant Agreement number (<https://zenodo.org/communities/seamark/>).

In addition to the information required in the HE template, we asked participants to specify the responsible person, institution and work package (WP) for each dataset as well as which deliverables this data will be used for. Including this information facilitates easier cross-referencing between deliverables and datasets.

#### Confidential datasets

Some of the project data contains sensitive or proprietary information. In such cases, options like anonymization or aggregation will be considered, once participants have a better overview of the data, to try to make it available. If not possible, the data will not be made publicly available.

Even though Zenodo provides the option to upload datasets under closed access, SeaMarks closed dataset will not be uploaded due to strict confidentiality reason: "Zenodo allows users to upload files under closed access. Closed access means that zenodo.org users will not be able to access the files you uploaded. The files are however stored unencrypted and may be viewed by Zenodo operational staff under specific conditions. This means that "closed access" on Zenodo is not suitable for secret or confidential data." (Zenodo, infrastructure).

However, the closed datasets are described in the DMP with metadata information which contains contact details for the responsible person or institution, allowing interested parties to 1) be aware of the data's existence and 2) to get in contact with the dataset owner to ask for the possibility to access the data.

### 3. RESULTS

In this M36 update, ten forms were updated and two new datasets were added (Table 1). No changes have been made to the confidentiality status of any datasets, nor to their designated repositories. The newly added datasets are:

- Saccharina latissima ddRAD-seq genotyping (WP1).
- Raw Data Mastersheet Seamark (WP2).

Table 1: Status of dataset forms over the course of the project.

Deliverable	Month	Number of forms	Modifications
D11.2	M6	47	
D11.2 update	M18	47	6 updates
D11.3 update	M36	49	10 updates, 2 new
<i>Upcoming</i>			
D11.5	M48		

See Table 2 in the appendix for a complete list of all datasets present at M36, the planned repositories, and their associated deliverables.

## 4. CONCLUSION

As of M36, the project contains 49 datasets, of which 27 are confidential. At the next update at M48, the final version of the DMP will be created, and all datasets that can be made available will be uploaded to various repositories.

## REFERENCES

- Horizon Europe programme guide, version 2.0, 11 April 2022
- EU Grants AGA – Annotated Model Grant Agreement EU Funding Programmes 2021-2027 PRE-DRAFT (HE) incl. update for ALL PROGRAMMES, 30 November 2021
- ARGOS, <https://argos.openaire.eu/splash/#page-top>
- Horizon Europe, Data Management Plan template, Version 1.0, 05 May 2021
- Zenodo, infrastructure, <https://about.zenodo.org/infrastructure> (Accessed the 27 October 2022)
- OpenAire, How to comply with HE mandate for publications ([How to comply with Horizon Europe mandate for publications](#))

## DATA SETS

DOI of current and previous DMP versions:

- M6: 10.5281/zenodo.7261408
- M18: 10.5281/zenodo.7261408
- M36: 10.5281/zenodo.15222027

# APPENDIX

Table 2 List of the datasets present at M36 and associated deliverables

WP	Responsible	Title	Repository planned	Link to Deliverables	Time of publication
WP1	CNRS	<i>Saccharina latissima</i> crosses	Zenodo	D1.2	Project end
WP1	CNRS	<i>Saccharina latissima</i> phenotyping	Zenodo	D1.2, D1.4, D1.6	Project end
WP1	CNRS	<i>Saccharina latissima</i> strain collection	Zenodo	D1.2	Project end
WP1	CNRS	<i>Saccharina latissima</i> ddRAD-seq genotyping	Zenodo	D1.2, D1.4, D1.6	Project end
WP1	Traitomic, CARL	Mutant Sequence data	Zenodo	D1.7	Project end
WP1	Uni of Galway	<i>Ulva</i> phenotyping	Zenodo	D1.1, D1.3, D1.5	Project end
WP1	Uni of Galway	<i>Ulva</i> strain collection	Zenodo	D1.3	Project end
WP2	Sirputis	Seaweed farming equipment drawings and calculation	Not decided yet	D2.2, D2.3, D2.4	
WP2	ORF	Mechanised seeding of <i>Saccharina latissima</i>	Confidential	D2.1, D2.4	
WP2	ORF	Mechanized harvesting at sea for kelp growing on vertical grow lines.	Confidential	D2.4	
WP2	ORF	Monitoring of selected <i>Saccharina latissima</i> strains in Faroe Islands and Britany	Confidential	D1.4, D1.6	
WP2	ORF	Post-harvest processing into storage stable products	Confidential	D2.3	
WP2	ORF	Growth and site parameters in a new site in FO	Confidential	D2.2	
WP2	ALGApplus	Fish production data to include in software for farm management	Confidential	NA	
WP2	ALGApplus	Ratio of biomass losses from harvest to storage	Confidential	NA	
WP2	ALGApplus	Monitorization of abiotic factors	Confidential	D2.6	
WP2	ALGApplus	Quality control of seaweed biomass	Confidential	NA	
WP2	ALGApplus	Ratio of biomass losses from harvest to storage	Confidential	NA	
WP2	ALGApplus	Seaweed chemical characterization	Confidential	D2.6	
WP2	ALGApplus	Seaweed production data	Confidential	D1.1, D2.6	
WP2	Nofima	Raw Data Mastersheet Seamark	Zenodo		Project end
WP3	Oceanium	Development plan for product specification	Confidential	D3.1	
WP3	Oceanium	Biorefinery plant implementation plan	Confidential	D3.2	
WP3	Oceanium	Biorefinery processing of 450 T ww <i>S. latissima</i>	Confidential	D3.3	
WP3	Oceanium	Product analysis data	Confidential	D3.4	
WP3	Oceanium	Fucoidan product dossier	Confidential	D3.5	
WP3	Oceanium	Beta-glucan product dossier	Confidential	D3.6	
WP4	UCPH	<i>In vitro</i> simulated gastrointestinal digestion of feed supplement prototypes developed by AAU	ERDA at UCPH	NA	Project end
WP4	Aalborg University	Chemical and biological characteristics post fermentation	Zenodo	D4.1, D4.3	Project end
WP4	AU, FEXP, UCPH,	The health-promoting effect of fermented seaweed	ENA for sequencing, Zenodo	NA	Project end
WP5	ALGAIA	Co-coextraction of <i>Ulva</i> products.	Confidential	D5.4, D5.5, D6.7, D7.4, D8.1, D8.3, D8.6, D9.7	
WP5	ALGAIA	Alginates coextraction dataset.	Confidential	D5.2, D5.3, D5.6, D7.4, D8.1, D8.3, D8.6, D9.7	
WP5	ALGAIA	Fucoidans coextraction dataset.	Confidential	D5.2, D5.3, D5.6, D7.4, D8.1, D8.3, D8.6, D9.7	
WP6	MAT, DTU, LUN, UTR	Alginate lyases and data on products produced by enzyme catalysis	Genbank	D6.2, D6.4, D6.5	Project end
WP6	DTU, MAT, UTR	Enzymatic processing of fucoidans	Genbank	D6.4, D6.5, D6.6	Project end
WP6	MAT, LUN, UTR	Enzymatic processing of laminarin	Genbank	D6.3, D6.4, D6.5	Project end
WP6	LUN, MAT, UTR	Ulvan modifying enzymes and enzymatic processing of Ulvan	Genbank	D6.4, D6.5, D6.7	Project end
WP7	Nofima	Flagship products and go-to-market strategy	Confidential	D7.1	
WP7	Nofima	Market application potential	Confidential	D7.3	
WP7	Nofima	Recommendations for scenario testing	Confidential	D7.4	
WP7	Nofima	Pilot scale sales	Confidential	D7.5	
WP7	Nofima	Commercial scale sales	Confidential	D7.6	
WP8	Sjokovin, Blue Resource	Data for characterization of supply chains of SeaMark product – business exploitation	Zenodo	D8.7	Project end
WP8	Sjokovin	Data for characterization of supply chains of SeaMark product	Partly, Zenodo	D8.1	Project end
WP8	Nofima	Data for techno-economic analysis of flagship products	Partly, Zenodo	D8.3, D8.6	Project end
WP8	WUR	Data for value chain analysis of flagship products	Partly, Zenodo	D8.2, D8.3	Project end
WP8	Sjokovin, Blue Resource	Data for socio-economic impacts SeaMark product	Partly, Zenodo	D8.4	Project end
WP9	WUR	LCA data set	Confidential	D9.7	
WP9	WUR	Ecosystem service data set	Zenodo	D9.2, D9.3, D9.4, D9.5	Project end