FLAGSHIPS

Clean waterborne transport in Europe

Deliverable D1.4 - Plan for management of project IPR and data

Riikka Ikonen, Antti Pohjroanta / VTT

Document information

Title	Plan for management of project IPR and data
Deliverable #	D1.4
Draft delivery data	2019-06-20 - date for submission of draft version
Validation date	2019-06-30 - date for validation of deliverable
Dissemination level	Public
Deliverable type	Report
Authors	Riikka Ikonen, Antti Pohjoranta, VTT

Document validation mark-up

Partner representative add name + date when approving deliverable

VTT	Antti Pohjoranta, 2019-06-30
BPSE	
ABB	
PE	
NOR	
MCT	
CFT	
LMN	
LMF	

Abstract

Deliverable abstract	

This plan for management of project IPR and data describes the management procedures for IP and data collection and storage as well as the data to be collected during the FLAGSHIPS project as envisioned at the date of writing.

On behalf of data management, a description of methodology and standards to be followed for data recording and storing, as well as what datasets are brought accessible for verification and re-use are outlined.

To support project innovation management, this plan revisits the intellectual property (IP) handling procedures outlined in the consortium agreement (CA) and describes the forms of knowledge potentially generated in the project.

The document is a living document and will be periodically updated, in particular on behalf of collected data sets and their description as well as the results recognized as potentially constituting intellectual property. The need for document updating is controlled at least at every project general assembly meeting, including interim and final reviews of FLAGSHIPS.

Contents

1. Introduction

This plan for management of project IPR and data describes data to be collected within the FLAGSHIPS project and the methods of the data management. The plan includes a description of methodology and standards to be followed and what datasets are exploitable or made accessible for verification and re-use. The plan covers all forms of knowledge generated by the project.

This document also aims to compile and document the identified results generated in the project that may lead to intellectual property (IP).

Plan for management of project IPR and data is a dynamic tool that is updated regularly, and in any case, by the midterm and final project reviews of FLAGSHIPS. Updates to the plan are controlled at least during every project general assembly meeting as well as in conjunction with project reviews. A new version of the plan for management of project IPR and data shall be uploaded whenever significant changes arises in the project, such as:
- new datasets;
- changes in consortium policies;
- new exploitable results.

VTT acts as data manager in the FLAGSHIPS project. VTT has appointed a data protection officer (Seppo Viinikainen).

By these actions, the project supports the European Commission's goals of shared data and open science that serves innovation and growth. FLAGSHIPS is a part of Horizon 2020 programme Open Data Pilot (OPD) and follows the principle *"as open as possible, as closed as necessary"* and focuses on encouraging sound data management as an essential part of research best practice. The FLAGSHIPS plan for management of project IPR and data includes the information and works as the data management plan required for all Horizon 2020 projects.

2. Summary of [planned] output data

The FLAGSHIPS project is an innovation action aiming to generate new intellectual property (IP) to the project participants as well as to the surrounding community.

Annex 1 - Dataset Metadata Schema lists data generated in the FLAGSHIPS project per work package, including dataset identifier (ID), description (origin, nature and size), potential use/users, standards and metadata, data sharing including how the data is shared, access, embargo periods, dissemination means, required software/tools for using the data, restrictions including the motivation and repository to be used. Table 1 presents a preliminary list of expected datasets.

Table 1 Expected datasets in FLAGSHIPS (see further details in Annex 1).

Work package	Resource type	Title	Version	Date of creation	Creator	Contributors	File location (file path)	Software used to create data	Origin and method
WP1	Currently no foreseen datasets. Updated throughout the project duration.								
WP2	Currently no foreseen datasets. Updated throughout the project duration.								
WP3	Currently no foreseen datasets. Updated throughout the project duration.								
WP4	Currently no foreseen datasets. Updated throughout the project duration.								
WP5	Currently no foreseen datasets. Updated throughout the project duration.								
WP6	Measurement data	Stavanger demo operational data	1	*FORESEEN*	Norled	VTT, Westcon	Stavanger data server	t.b.d.	Logging from ship PMS/IAS
WP6	Measurement data	Lyon demo operational data	1	*FORESEEN*	CFT	VTT, ABB, PE	Lyon data server	t.b.d.	Logging from ship PMS/IAS
WP6	Refined data	Public data from Stavanger hydrogen vessel operation	1	*FORESEEN*	Norled	VTT, Westcon	VTT workspace, www-site	t.b.d.	Refining logged data
WP6	Refined data	Public data from Lyon hydrogen vessel operation	1	*FORESEEN*	CFT	VTT, ABB, PE	VTT workspace, www-site	t.b.d.	Refining logged data
WP7	Currently no foreseen datasets. Updated throughout the project duration.								

The possibility to re-use any existing open research data will be examined carefully during the project. Potential re-utilization will be enabled and quality of the data ensured by careful documentation of data collection methods as well as the contents of the datasets.

3. Fair data

3. 1. Making data findable, including provisions for metadata

Quality control measures will be taken to maintain the accuracy of data during the project. Discipline compliant metadata elements will be used describing the data to aid data discovery and potential re-use. List of metadata elements and metadata standards used are provided in the Metadata schema (Annex 1). Metadata of opened data will be made available for research and re-use after project closure.

3.2. Making data openly accessible

As presented in the Annex 1, the FLAGSHIPS project foresees two open datasets that will be publicly available on the project website.

When possible, results will be made public but all project partners will have a possibility to review any project outputs before their possible publication (see section 4.2). Decisions concerning the sharing of (selected) datasets will be taken by the Project management committee (PMC). The coordinator (VTT) in collaboration with project partners will take all the appropriate measures to make relevant data openly available and usable for third parties for study, teaching and research purposes.

If, after project closure, permission to re-use the data is required, all requests for further use of data will be considered carefully and whenever possible approved by the principal investigator or the person mandated with the task. Permission for data use will be granted providing there are no IPR or confidentiality issues involved or any direct overlap of research questions with the primary research. Permission will be provided by contacting the coordinator (VTT). Contact information and appropriate procedure will be provided in connection with other metadata.

Main focus in data sharing will be on the data underlying prospective scientific publications ensuring the validation of results presented in publications.

Published data will be archived in a common and open data repository.

FLAGSHIPS Deliverable 1.4 - Plan for management of project IPR and data

3.3. Making data interoperable

Variables and value names will be constructed following general data processing conventions common to the research subject. List of value names and used vocabulary will be provided in the metadata schema and will be continuously updated.

3.4. Increase data re-use through clarifying licences

Ownership of datasets will belong to project consortium after the project completion. Creative Commons licence CC-BY-SA or CC-BY will be used for any opened datasets, unless there are compelling reasons to select more restricted type of CC-licence. Creative commons licences will by default include also a disclaimer of liability for the re-use of opened data.

No definite period or time limit is planned for access or re-use of the data. Justification for possible case-specific embargo for published data will be decided by project consortium. Embargo will be sought primarily in connection with any potential patent application based on project results.

4. IPR management

4.1 Data sharing and ownership

In accordance with the Consortium Agreement (CA), results are owned by the Party that generates them. Any restrictions regarding data sharing and IPR are further detailed in Attachment 1 of the consortium agreement.

Annex 1 includes details on data sets these will be shared, including access procedures, embargo periods (if any) and outlines of technical mechanisms for dissemination as well as identification of the repository where data will be stored, if already existing and identified, indicating in particular the type of repository (institutional, standard repository for the discipline, etc.).

4.2 Dissemination and protection of results considered IP

As given in the consortium agreement, prior notice (30 calendar days) of and a possibility to review any dissemination of project results shall be given to the project parties. Further details on the dissemination and review procedure are outlined in the CA section 8.4.

When significant new innovation and intellectual property is generated during the FLAGSHIPS project, these will be protected through patents and/or protective publishing. Novel designs will mainly be protected through design rights assertion in contracts with suppliers and customers. PEMFC system developments will form additional IP to BPSE. Such knowledge and IP will be collected during the project, and the rules for protection and licensing of the knowledge and foreground IP developed in the project are defined in the CA.

5. Allocation of resources

Costs related to research data management and opening are eligible as part of the project grant. Cost allocation is based on the assumption that maximum of 5 % of total project costs will be needed to make research data quality-controlled fairly available and as open as possible.

During the project consortium partners will be responsible for managing and curating datasets at their possession. VTT as project coordinator and task leader acts as Project data manager. At the project ending, consortium steering group will mandate Principal Investigator or project data manager to take care of long-term preservation and sharing of datasets.

The project coordinator VTT, has appointed a data protection officer. Contact information:
Seppo Viinikainen
FLAGSHIPS Deliverable 1.4 - Plan for management of project IPR and data

seppo.viinikainen@vtt.fi
+358207222642

6. Data security

During the project research datasets will be available only to those project partners or project consortium members, who have been accredited by and their data usage has been approved by the Coordinator or authorized project consortium member. Project partners will be responsible for curating, preserving, disseminating and deleting in appropriate manner the datasets in their possession. Retention time for curated datasets will be the same as for other project results at the project consortium partners.

Data collected or acquired within the project will be stored in a secure IT environment behind a firewall as per information in Annex 1. Access will need authentication.

Long-term and secure preservation of published research data will be ensured by using only certified and OpenAIRE guidelines compatible repositories.

7. Ethical aspects

Privacy of the project participants and persons involved will be secured by following closely all the relevant EU general data protection regulations (GDPR). No person or organisation involved will be unintentionally identifiable directly or indirectly in the datasets. Besides storing separately from the data, all direct identifiers of any respondents or subjects (e.g. names and contact information of persons and organisations) - also indirect references to e.g. lines of businesses, branches or industries - will be removed and destroyed after the anonymised dataset has been checked and validated.

Personal data collected, if any, will not include sensitive data like health, sexual lifestyle, ethnicity, political opinion, religious or philosophical conviction. It will be limited to an extent strictly necessary and proportionate for the objectives of the project. (Reference: Regulation (EU) 2016/679, particularly Article 5).

The FLAGSHIPS project will comply with:
- The REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and until valid, the repealing Directive 95/46/EC (General Data Protection Regulation),
- Directive 2002/58/EC on privacy and electronic communications,
- The Charter of Fundamental Rights of the EU (2000/c 364/01).

Annex 1 - Dataset metadata schema

The metadata schema updated throughout the FLAGSHIPS project. The document is uploaded in the project workspace.

Table Annex 1a Metadata schema: general overview.

General overview											
ID	Work package	Resource type	Title	Version	Date of creation	Creator	Contributors	File location (file path)	Software used to create data	Origin and method	
	WP1	Currently no foreseen datasets. Updated throughout the project duration.									
	WP2	Currently no foreseen datasets. Updated throughout the project duration.									
	WP3	Currently no foreseen datasets. Updated throughout the project duration.									
	WP4	Currently no foreseen datasets. Updated throughout the project duration.									
	WP5	Currently no foreseen datasets. Updated throughout the project duration.									
6-1	WP6	Measurement data	Stavanger demo operational data	1	*FORESEEN*	Norled	VTT, Westcon	Stavanger data server	t.b.d.	Logging from ship PMS/IAS	
6-2	WP6	Measurement data	Lyon demo operational data	1	*FORESEEN*	CFT	VTT, ABB, PE	Lyon data server	t.b.d.	Logging from ship PMS/IAS	
6-3	WP6	Refined data	Public data from Stavanger hydrogen vessel operation	1	*FORESEEN*	Norled	VTT, Westcon	VTT workspace, www-site	t.b.d.	Refining logged data	
6-4	WP6	Refined data	Public data from Lyon hydrogen vessel operation	1	*FORESEEN*	CFT	VTT, ABB, PE	VTT workspace, www-site	t.b.d.	Refining logged data	
	WP7	Currently no foreseen datasets. Updated throughout the project duration.									

Table Annex 1b Metadata schema: content and technical description

		Content description						Technical description			
ID	Work package	Description and relation to the project objectives	Subjects (keywords)	Geographical location	Code list used	List of variables	Metadata schema used	Software used to create the file	File format	Necessary software	File size
	WP1										
	WP2										
	WP3										
	WP4										
	WP5										
6-1	WP6	Analysis of ship performance and project impact (T6.5, T7.6)	Hydrogen vessel operation	Stavanger		t.b.d.	ad-hoc	t.b.d.	t.b.d.	t.b.d.	t.b.d.
6-2	WP6	Analysis of ship performance and project impact (T6.5, T7.6)	Hydrogen vessel operation	Lyon		t.b.d.	ad-hoc	t.b.d.	t.b.d.	t.b.d.	t.b.d.
6-3	WP6	ODP, communication (T7.1)	Hydrogen vessel operation	Stavanger		t.b.d.	ad-hoc	Matlab / Excel	*.csv, *.xls		t.b.d.
6-4	WP6	ODP, communication (T7.1)	Hydrogen vessel operation	Lyon		t.b.d.	ad-hoc	Matlab / Excel	*.csv, *.xls		t.b.d.
	WP7										

Table Annex 1c Metadata schema: sharing and preservation.

ID	Work package	Use / Users	Rights / Licence	Dissemination	Access	Restrictions	Repository for open data	Permanent identifier (e.g. DOI, URN)
				Sharing and preservation				
	WP1							
	WP2							
	WP3							
	WP4							
	WP5							
6-1	WP6	Project group	Confidential	Project workspace	Closed	t.b.d.	n/a	n/a
6-2	WP6	Project group	Confidential	Project workspace	Closed	t.b.d.	n/a	n/a
6-3	WP6	Public	Open access	Www-site	Open	t.b.d.	Www-site	n/a
6-4	WP6	Public	Open access	Www-site	Open	t.b.d.	Www-site	n/a
	WP7							

FLAGSHIPS Deliverable 1.4 - Plan for management of project IPR and data