HORIZON EUROPE PROGRAMM
Topic HORIZON-JTI-CLEANH2-2024-04-01

GA No. 101192169

RESCUE

RELIABLE AND EFFICIENT DUAL FUEL SYSTEM FOR CIVIL PROTECTION DURING NATURAL DISASTERS USING HT-PEM TECHNOLOGY

RESCUE

Deliverable report

D1.1 – Data Management Plan

Clean Hydrogen Partnership
Co-funded by the European Union

WP	1	Management
Deliverable No.	D1.1	Data Management Plan

Dissemination level	PU	**Due delivery date**	June 2025
Deliverable Type	DMP	**Actual delivery date**	June 25th, 2025

Lead beneficiary	(DLR)
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Document history

DATE	VERSION	CHANGES MADE / REASON FOR THIS ISSUE	AUTHOR / PARTNER
25/06/2025	0.1	First draft	DLR

Dissemination level: PU = Public, SEN= Sensitive, limited under the conditions of the Grant Agreement.

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Project details

PROJECT TITLE	
PROJECT NUMBER	101192169
PROJECT ACRONYM	RESCUE
PROJECT NAME	Reliable and Efficient Dual Fuel System for Civil Protection during Natural Disasters using HT-PEM Technology
CALL	HORIZON-JTI-CLEANH2-2024
TOPIC	HORIZON-JTI-CLEANH2-2024-04-01
STARTING DATE OF THE PROJECT	01-01-2025
PROJECT DURATION	48 months

Project Abstract:

This proposal entitled "RESCUE – Reliable and Efficient Dual Fuel System for Civil Protection during Natural Disasters using HT-PEM Technology" is about the development and the demonstration of a fuel cell system which allows the operation using 100 % of hydrogen and additionally using methanol and assures 50 kW of electrical power, with peak power of up to 100 kW. The containerised and modular design in combination with the duel fuel approach leads to an application flexibility for various important facilities during natural disasters like the civil protection with different energy requirements. The HTPEM technology is characterised by increased operating temperature of around 160 °C and enables a simplified cell design and operation regarding water management, heat rejection and direct use of reformates. After system requirements (WP2), the fuel cell module equipped with the fuelling possibilities will be constructed and tested in laboratory environment (WP3). After fuel cell and fuel container constructions (WP4), the system integration (WP5) considering safety and transport certification requirements (WP2/9), demonstration using defined load profiles and conditions with performing grid integration is planned (WP6). Testing for at least 2,000 hours on site of a civil protection organisation shows the system capabilities and completes the project (WP7). State-of-Health against the criterium of system efficiency and fuel flexibility on system and on fuel cell level is analysed and accompanies the whole project duration (WP8). Dissemination and exploitation are mandatory in this project (WP10).

Key Words: Hydrogen, Methanol, Fuel Cells, HT-PEMFC

PARTICIPANT N°	PARTICIPANT ORGANISATION NAME	SHORT NAME	COUNTRY
1	DEUTSCHES ZENTRUM FUR LUFT - UND RAUMFAHRT E.V.	DLR	DE
2	ADVANCED ENERGY TECHNOLOGIES AE EREUNAS & ANAPTYXIS YLIKON & PROIONTONANANEOSIMON PIGON ENERGEIAS & SYNAFON SYMVOULEFTIKON Y PIRESION	ADV	EL
3	ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS	CERTH	EL
4	DANMARKS TEKNISKE UNIVERSITET	DTU	DK
5	BUNDESANSTALT TECHNISCHES HILFSWERK	THW	DE
6	PROACT INDUSTRIAL SAFETY CONSULTANTS PC	PROACT	EL

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LIST OF ABBREVIATIONS

- **BPP:** Bipolar Plate
- **CA:** Consortium Agreement
- **DMP**: Data Management Plan
- **DOI**: Digital Object Identifier
- **EC:** European Commission
- **EU:** European Union
- **FC:** Fuel Cell
- **GA**: Grant Agreement
- **HT-PEM:** High Temperature Polymer Electrolyte Membrane
- **IP:** Intellectual Property
- **IPR**: Intellectual Property Rights
- **MEA:** Membrane-Electrode-Assembly
- **NDA**: Non-Disclosure Agreement
- **PR:** Public Relations
- **SPS:** Software Product Specification
- **SW:** Software
- **TM:** Team Member
- **WP**: Work Package

List of Tables

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1. Introduction

The following document explains the Data Management Plan (DMP) for the project RESCUE. RESCUE is committed to the FAIR (Findable, Accessible, Interoperable, Reusable) data framework and this document describes Data Management Plan (DMP) for the project, reporting the data to be generated, methodologies that will be used and the methods for data exploitation, sharing, accessibility, and re-use.

The DMP will not be a fixed document, but it will evolve during project implementation. The document will be update if and when necessary in order to guarantee best data monitoring procedures. The data management plan has been created with the Horizon Europe DMP template and based on DLR and partners standard management procedures and templates. The revised version will be provided in M48 as Deliverable D1.2 Data Management Plan – Revised DMP.

1.1. Structure of the document

The document provides at first a summary of the data that will be collected (and monitored) during the project (Chapter 2). In Chapter 3 is presented how the project will implement the Findable, Accessible, Interoperable and Reusable (FAIR) principles for data. Chapter 4 focuses on allocation of resources to implement the FAIR principles and data management, while Chapter 5, 6, 7 and 8 presents data security and ethical aspects as well as confidentiality and other issues. In Chapter 9 is presented how data sets will be collected and analysed. Chapter 10 to 19 provides the dataset management of all WPs. Chapter 20 gives a conclusion of the document.

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2. Data Summary

The purpose of the data collection and generation is to assure that the objectives of the project RESCUE will be met. The generation and collection of data is critical to the execution of the project in order to meet objectives and ensure that the output can be shared amongst the consortium. As part of the European Commission's goal of Open Science policy and practices, it is a mandatory component that all projects using data include a DMP. To this end, RESCUE will be following the policy of "as open as possible and as closed as necessary" and scientific research data will be easily discoverable, accessible, assessable, intelligible, interoperable and ultimately useable beyond its original purpose.

2.1. Types and formats of generated data

The project will generate multiple types of data over its lifetime due to the multidisciplinary approach. This data will take the form of text document, spreadsheets, laboratory notebooks, diaries, reports, programming code and similar. Furthermore, the demonstration site will also generate a variety of useful data which will be collected and processed.

2.2. Possible re-use of the data

The project will use the data available within the consortium. A number of different data sets have been identified and analysed by the consortium members, then a measured decision will be made for each data set to ensure that if applicable for reuse, that it will be made FAIR.

2.3. Origin of the used data

Data has two main origins, either it is generated from within the project, or it is external data. As external data, regulations, codes, and standards will be used, which have either been downloaded from the official website of the European Union (https://eur-lex.europa.eu) and the official website of the Clean Hydrogen Joint Undertaking (https://www.clean-hydrogen.europa.eu), or have been purchased from official and legally authorized websites. The origins of this data must be acknowledged within the management plan for each data set.

2.4. Anticipated size of the data

The size of the data produced during the project should not exceed more than 2 GB except in exceptional cases as it will mainly be in the form of text, images and occasionally video.

2.5. Data Utility

The data will be primarily used by the consortium members to achieve the objectives of the project, and then subsequently this data will be used for future or related research activities by consortium members. The secondary use of the data will be for the scientific and industrial community that have interests in this field. Considering the use of the data by external parties, particularly attention will be paid to the sharing of confidential information and the IPR agreements

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included in the grant agreement. To this end, a standardized NDA is developed by the consortium to allow sensitive topics to be more freely discussed.

3. FAIR Data

3.1. Making data Findable, including provisions for metadata

Metadata is structured information describing the characteristics of a resource; for example, the dates associated with a dataset or the title and author of a book. Metadata supports discovery, re-use and long-term preservation of resources. Metadata may vary across scientific fields, but it will typically cover general descriptive and access metadata, data characteristics, and archive terms and access policies.

A metadata record consists of a set of predefined elements that define specific attributes of a resource. Each element can have one or more values; for example, a dataset might have multiple creators. Documenting data enables other researchers to discover the data more easily. Metadata about the nature of your files is also critical to the proper management of digital resources over time. In case of scientific publications, the Digital Object Identifier (DOI) will be provided, while all deliverables (and other project reports) that are intended for public use will also be made available for download via the project website.

All the partners will agree on specific issues regarding for example:

- The way that the data will be organised or formatted so that everyone working on it now and in the future knows the origins of the data.
- The way that each file will be named (File Naming Conventions). The use of the following format is proposed for each file/document: "project_reference_filename_version". For example, the file containing the DMP deliverable is called:
  "RESCUE_D1-1_DMP_V1_final".
- Providing adequate metadata within the dataset (e.g. field labels or column headings) in order to be easy to interpret the data. Other examples of information that the data must contain include:
  - Reference period
  - Project funding information: European Union logo and information about Grant Agreement and the action/program that funds the project
  - Release policy including dissemination rules and purposes
  - Information about data collection (source, frequency and adjustments)
  - Geographic coverage of the dataset (if applicable)
  - File formats
  - Comments
- Ways to identify different versions. It is proposed in each data set to include a versioning table, additionally to use the suffix "_V1" in each file/document name relevant to the versioning table. For versioning the rule that will be followed will be the use of a sequentially numbered system: Major modifications follow V1, V2, V3 etc, minor modifications

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follow V1.1, V1.2, V1.3 etc and "final" for the final version. If changes need to be done in the final version then the name of the document will change including the relevant sequential version number, ensuring that the document with the "final" suffix is indeed the final one.

At a minimum, metadata records should be kept in a fielded form, such as a spreadsheet, csv file, or tab-delimited file. Auxiliary information necessary to interpret the metadata - such as explanations of codes, abbreviations, or algorithms used - should be included as accompanying documentation. The data sets identified for the project RESCUE from each work package are included in this deliverable (see Chapter 9 to 18).

3.2. Making data openly Accessible

All the data related to Public Deliverables (see the List of Deliverables table in the Grant Agreement) will be openly available as the default. The data related to IPR protection or to relevant provisions made in the consortium agreement will be eligible to be shared under the defined conditions.

According to the type of data and to its confidentiality level, the data will be made accessible on the project's communication channels or repositories (for raw data). This will be defined during the project once the data is better defined and known.

To ensure the safety of the data, the involved participants will use their available local file servers to periodically create backups of the relevant materials. Additionally, a further level of storage and accessibility will be in the project website where public deliverables and files can be easily accessed.

A teamsite will be used, among other things, to track project progress, ensure that the information about the progress of each WP is continuously updated, to exchange documents, to collect financial data, to collaboratively prepare reports, to assist in official and intermediate reporting, to report on meetings, achievements and time schedules, and to discuss new approaches and activities planned. This tool will also have the functions of a project handbook describing the project plan, contact lists, reporting templates and Project guidelines. Each partner will update the teamsite according to the project progress. All information circulated will be treated as consortium confidential unless stated otherwise. The RESCUE teamsite includes the following subfolders/architecture and will be regularly updated and expanded as needed:

- General
  - 1_Contractual Documents
  - 2_Contact List
  - 3_Consortium Meetings
  - 4_Deliverables submitted
  - 5_Templates
  - 6_Periodic Report
  - 7_Reviews
- WP1 (example - WP2-WP9 analogue to WP1):

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- 1_WP1 Deliverables
- 2_WP1 Meetings
- 3_WP1 Execution
- 4_WP1 Bibliography

- WP10
  - 1_Com&Diss Updates
  - 2_Branding elements + Com&Diss actions
  - 3_Deliverabls, PR & Others
  - 4_Meetings and Events
  - 5_Exploitation strategy

Each work package has its own dedicated area within the folder structure, which is broadly similar to the WP1 example shown in the above. Each work package leader is responsible for the good structuring of the file area and partners are encouraged to follow best practices.

All of the research data and material will be in place for at least the 10 years after the end of the project prescribed by the European Commission, as well as the foreseeable future following that according to the agreements reached by the consortium by the end of the project (if any additional is agreed).

Partners used repositories are: own-institute repository, its own share folders or database with limited access for RESCUE participants, or Microsoft SharePoint as the primary collaboration and storage platform, with regular backups maintained on an external hard drive for redundancy. In the case of research data, data will be preserved for a minimum of 10 years at each project partner on local servers. The coordinator (DLR) will store all relevant data in addition to the research data for 10 years. Research data will also made available along with publications if this is foreseen by the target journal.

The Coordinator of the project RESCUE along with the TM will be in charge for data management and all the relevant issues.

3.3. Making data Interoperable

To guarantee data interoperability, RESCUE project data, including metadata, will be standardized using a formal, accessible language. The interoperability of data and research outputs will be maintained by using standard processing software where possible (e.g., Windows Office, PDF). If cross-references to data are necessary, such as the production and evaluation of performance for particular material or components, qualified references will be provided as far as possible.

Partners will arrange access to specialist software (e.g., modelling, data processing, or software for specific test methods) on a bilateral or project-wide basis, depending on need and license availability. All data collected during the project will be exported to standard data formats whenever possible to facilitate interoperability. These formats may include .txt, .pdf, and .docx for reports, drawings and training material, and .csv and .xlsx for numerical datasets. Although .docx and .xlsx formats are specific to Microsoft Office and not

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universally standard, they are included due to the widespread use of Microsoft Office.

3.4. Increase data Re-use (through clarifying licenses)

RESCUE has no standard (yet) - at this stage of the start of the project - regarding the licensing of data generated and (most likely) data licensing will be decided on a case-by-case basis. Whenever feasible, the most open approach recommended by Clean Hydrogen/Horizon Europe guideline will be employed, except for data deemed commercially confidential, which will be subject to more restrictive licensing. Any instances where data licensing is required will be documented in a forthcoming update to the Data Management Plan (DMP). In principle, data will remain usable, i.e., not outdated, for a period of 10 years following the completion of the project.

Long term preservation of restricted or closed data will be ensured by the partner that created the data. It is foreseen that many partners will use Zenodo, or similar platforms, to store restricted and open data. Open/ Public data will be also kept via the project website, which will be updated till project ends and maintained 'on air' up to 10 years after the project. Management of partner-own data after the project will be responsibility of the data-owner. Restricted and closed data will be added to the partner-data repository where it will be stored cost-free for a minimum of 10 years.

In the possible updates of the DMP partners will provide plans for how the long-term preservation of the closed and restricted data they created will be ensured.

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4. Allocation of Resources

The primary responsibility for data management lies with the principal investigator at each project partner. Each partner is contributing at technical level to provide information about the type of data produced and how to use and re-use it. Therefore, a good communication between all the partners is necessary.

4.1. IPR Protection Strategy

This project RESCUE will have as potential outcome the generation of new Intellectual Property (IP) for partners (maybe even new patents). Access to this IP will be provided to partners as appropriate, in line with the Consortium Agreement. Management of Open Science Practices and Intellectual Property Rights (IPR) protection activities will fall under WP1 and WP10.

The project's IPR strategy (which will be outlined in Plan of Communication, Dissemination and Exploitation (D10.1, D10.4, D10.5 and D10.6)) aims to enable partners to strengthen their market position through patent protection. Partners signed a Consortium Agreement outlining rules for confidentiality, ownership, and IPR issues. This includes details on procedures for granting publication of results, ownership regimes, and IPR matters such as background and licensing terms, etc.

5. Data Security

Project data will be stored in project's and partners' repositories to enhance accessibility to a broader community, categorized as follows:

- **Public**: This category includes project data that can be openly published on the project website or registries of scientific repositories, making it accessible to a wider audience.
- **Confidential**: Data in this category are subject to obligations to third parties, prohibiting full disclosure. Therefore, dissemination to the public will occur only with the agreement of project partners and in a restricted manner. Deliverables labelled as "confidential" in terms of dissemination level and listed as such in the Grant Agreement fall under this classification.
- **Internal**: This category encompasses project raw data utilized exclusively by consortium partners during the project, not intended for public dissemination.

Each consortium partner bears the responsibility for appropriately storing, processing, and sharing the data generated during their project activities. Additionally, partners are accountable for ensuring sufficient storage capacities, data backup, and recovery in accordance with their organization's internal policies.

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6. Ethical aspects

Any ethical or legal issues that can have an impact on data sharing can be discussed in the context of the ethics review. The partners of RESCUE are to comply with the ethical principles as set out in Article 14 of the Grant Agreement, which, among other, states that all activities must be carried out in compliance with:

- ethical principles (including the highest standards of research integrity — as set out, for instance, in the European Code of Conduct for Research Integrity — and including, in particular, avoiding fabrication, falsification, plagiarism or other research misconduct) and
- applicable international, EU and national law.

In accordance with the General Data Protection Regulation (GDPR) (EU) 2016/679, all personal data collected during the project, such as names, email addresses, institutional affiliations, audiovisual material from workshops or public events, will be processed lawfully, fairly, and transparently. Consent will be explicitly obtained from individuals prior to data collection, especially where data may be published or shared (e.g., event recordings, photos, attendance lists). Such data will only be used for the intended communication and dissemination purposes outlined in the project and will be securely stored on protected internal servers (e.g., RESCUE Teamsite) with access restricted to authorized personnel.

7. Confidentiality

All partners of RESCUE must keep any data, documents or other material confidential during the implementation for the project and for four years after end of the project in accordance with Article 13 of the Grant Agreement. Further detail on confidentiality can be found in Article 13 of the Grant Agreement.

8. Other Issues

An appropriate Consortium Agreement has been established to govern the ownership of results and access to critical knowledge, including Intellectual Property Rights (IPR) and research data. The IPR strategy covers various commercialization avenues such as patents, copyrights, and trade secrets, in alignment with general EC policies on ownership, transfer of results, dissemination, exploitation rights, confidentiality and availability of information (refer to chapter 8 and 9).

Critical Intellectual Property (IP) necessary for the successful execution of the RESCUE project is either owned by consortium members or has undergone preliminary freedom-to-operate checks, with IPR protection measures detailed in the Consortium Agreement. Background IP contributed by partners will remain accessible for use and will remain the property of the original owner. IP generated during the project will be owned by the partner(s) responsible for its development.

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Decisions regarding the publication of IP will be made jointly by the consortium partners, while the strategy for exploiting results will be determined on a case-by-case basis, ranging from open access to licensing arrangements.

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9. Collection and analysis of data sets

9.1. Planning

In the DMP there must be the assessment of whether the investment to store the data balances the return on investment that the reuse of the data can give. If that assessment is positive, the data storage must be managed. If this assessment is positive there must be further assessment to determine whether the data is or can be made FAIR (findable, accessible, interoperable and reusable). Considerations include the EC requirements, but also beneficiary organisation policies and recommendations.

9.2. Identification of Research Datasets

The research data sets are first to be identified. The idea is to take a "snapshot" of the research data generation. There is no minimum or maximum number of datasets expected but reasonable consideration must be applied. The blank template for the below tables can be found in Appendix 1.

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10. Work Package 1: Management

DATA SET n. 1.1 – Management data – WP 1 – Owner(s): DLR, all partners		
1 DATA SUMMARY	Purpose of the Data	Data necessary for the management of the project to: • Coordinate the efficient and timely execution of project's activities, ensure smooth communication flow. • Handle the risk assessment and management. • Complete the project within the agreed time schedule and budget. • Handle and organise the project data via the Data Management Plan. • Coordinate the Dissemination and Exploitation activities in line with WP10.
	Type and Format of data	Microsoft office data (*.pptx, *.docx, *.xlsx, *.pdf, *.mp4, …) or similar Presentations, Reports (Periodic Reports, deliverables), meeting agendas, Minutes of Meeting, recordings of meetings, travel recommendations, attendance lists, organizations of meetings, online videocalls, etc.
	Reused-Data	Publication / Communication of project meetings and results on teamsite, homepage, etc.
	Data origin	Management of the project, project meetings, project communications, etc.
	Data size	Growing and/or revisable, as outlined in chapter 2.4
	Data Security and Storage	See chapters 3.2 and 5
	Data value (Long Term)	Data will be useful for the partners during the project duration and afterwards.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention

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DATA SET n. 1.1 – Management data – WP 1 – Owner(s): DLR, all partners		
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	See chapter 3.1, file naming convention
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable

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DATA SET n. 1.1 – Management data – WP 1 – Owner(s): DLR, all partners		
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners

Table 1. WP1 dataset management

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11. Work Package 2: System Requirements

DATA SET n. 2.1– Safety management – WP 2 – Owner(s): PROACT, ADV, DTU, CERTH, THW		
1 DATA SUMMARY	Purpose of the Data	To document and monitor safety aspects (hazard identification, risk analysis, mitigation measures) during the development, operation, and demonstration of the RESCUE system, ensuring the protection of personnel, facilities, and the environment.
	Type and Format of data	– HAZOP/HAZID with Kenexis Open PHA software (.opha, .xlsx, .pdf) – Bowtie analysis with BowTieXP software (.btf, .docx, .pdf) – Consequence modelling with EFFECTS software (.effx, .docx, .pdf) – Training material and results presentation (.pptx, .pdf) – Safety procedures, guidelines and protocols (.docx, .pdf)
	Reused-Data	Use of existing risk management methodologies from relevant projects as well as Regulations, Directives, codes, international and European standards. All references will be cited in the reports.
	Data origin	– HAZOP/HAZID sessions during which the management safety team will examine all relevant parts of the design – Observational – data from the process – Regulations, Directives, codes, international and European standards
	Data size	Small (less than 1 GB overall), mainly documents, spreadsheets, drawings and illustrative training material
	Data Security and Storage	Data will be stored on the RESCUE teamsite with restricted access. Data produced during the project will be stored on ProAct's Microsoft SharePoint, with regular backups maintained on an external hard drive for redundancy.
	Data value (Long Term)	High value for the safety of the project, for future fuel cell technology projects and the development of similar safety studies.
2. FAIR DATA	Discoverability of data (metadata provision)	As per the teamsite metadata standards.

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DATA SET n. 2.1– Safety management – WP 2 – Owner(s): PROACT, ADV, DTU, CERTH, THW		
2.1 FAIR DATA - Making data findable	Identifiability of data (refer to standard id mechanisms)	No standard permanent identifier is expected to be used.
	Naming conventions used	File naming: "*type of report*_*progressive version*" or similar.
	Search keywords approach	No keywords generation, indexing or tagging is expected to be used.
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	The primary factor will be the type of SPS utilized.
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data access is restricted to the consortium members. Exceptions are relevant data for publications, reports, etc. in agreement with the consortium. A version of the hydrogen safety plan will be made public.
	How data will be made available	The data will be available only through dedicated channel already agreed with consortium partners or upon specific partner request.
	Methods or SW tools for data access	As outlined in chapter 3.2.
	SW documentation and other information needed	As outlined in chapter 3.2.
	Repository for deposit of data, metadata, documentation and code	Internal repository will be used to store data.
	Access restrictions	The data shared are limited to consortium partners. Exceptions are relevant data for publications, reports, etc. in agreement with the consortium. A version of the hydrogen safety plan will be made public.
	Data interoperability assessment	ProAct will already give high level of interoperability.

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DATA SET n. 2.1– Safety management – WP 2 – Owner(s): PROACT, ADV, DTU, CERTH, THW		
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	No dedicated vocabulary is expected to be used. Terminology based on as Regulations, Directives, codes, international and European standards. Data shared will be in .pdf, .png/.jpg or .xlsx format. It will depend on the typology and source of the data.
	Data licensing for wide reuse	The data created are limited to consortium partners. Exceptions are relevant data for publications, reports, etc. in agreement with the consortium. A version of the hydrogen safety plan will be made public.
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable.
	Data usability by Third Parties (after the end of the project)	Public report has no limitation in terms of use by third parties. Data usability by Third Parties is subject to consortium agreement (NDA signing)
	Restrictions to data re-use	No restriction to re-use of data.
	Quality assurance process	Data quality will be guaranteed by peer reviewing.
	Length of time of data re-usability	Not applicable.
	Costs estimates for making data FAIR	Costs are mainly personnel effort and eventually presentation of a poster to scientific fairs. All costs will be covered by project funding.
	Data Management Responsibilities	ProAct will be responsible of data management and quality of data.

Table 2. WP2 dataset management, Data Set 2.1

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DATA SET n. 2.2– Product Requirements – WP 2 – Owner(s): THW, DTU, CERTH, ADV, PROACT		
1 DATA SUMMARY	Purpose of the Data	To include all the necessary product requirements that are relevant for application of the technology from the end-user perspective
	Type and Format of data	Description of Requirements, Text, Pictures, Tables(.docx .pdf)
	Reused-Data	Inputs from end-user Workshops
	Data origin	Inputs from end-user Workshops
	Data size	Small
	Data Security and Storage	RESCUE Teamsite
	Data value (Long Term)	Medium
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	-
	Identifiability of data (refer to standard id mechanisms)	-
	Naming conventions used	-
	Search keywords approach	-
	Clear versioning approach	-
	Standards or procedures for metadata creation applied	Not applicable.
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data access is restricted to the consortium members.
	How data will be made available	RESCUE teamsite
	Methods or SW tools for data access	As outlined in chapter 3.2.

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DATA SET n. 2.2– Product Requirements – WP 2 – Owner(s): THW, DTU, CERTH, ADV, PROACT		
	SW documentation and other information needed	As outlined in chapter 3.2.
	Repository for deposit of data, metadata, documentation and code	-
	Access restrictions	Access restrictions
	Data interoperability assessment	-
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	-
	Data licensing for wide reuse	-
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	-
	Data usability by Third Parties (after the end of the project)	-
	Restrictions to data re-use	No restriction to re-use of data.
	Quality assurance process	-
	Length of time of data re-usability	-
	Costs estimates for making data FAIR	-
	Data Management Responsibilities	-

Table 3. WP2 dataset management, Data Set 2.2

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DATA SET n. 2.3 – Dual Fuel FC unit designing – WP 2 – Owner(s): CERTH, ADV, DTU		
1 DATA SUMMARY	Purpose of the Data	To document the fuel cell unit redesign so that the dual fuel functionality can be accommodated.
	Type and Format of data	Microsoft office data (*.pptx, *.docx, *.xlsx, *.pdf, *.mp4, …) or similar. Presentations, Reports (Periodic Reports, deliverables), PFD, P&ID, etc. Fuel cell design (.csv, .xlsx, .txt, .data, infoRun, .info, .txt, .csv)
	Reused-Data	Use of existing PFD and P&ID provided by ADV Publication / Communication of project results on teamsite, homepage, etc. Proving data to project partner ADV In the case of data reuse from literature, it will be cited in the report.
	Data origin	FC redesign process
	Data size	Small (less than 5 GB overall), mainly documents, spreadsheets, drawings and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be useful for the partners during the project duration and afterwards.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	See chapter 3.1, file naming convention

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2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Data usability by Third Parties	Data is confidential and restricted to the project partners only, to project partners

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	(after the end of the project)	and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners

Table 4. WP2 dataset management, Data Set 2.3

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DATA SET n. 2.4 – Thermal Management – WP 2 – Owner(s): DTU, ADV, CERTH		
1 DATA SUMMARY	Purpose of the Data	The purpose of data is to create a 3D model of the Advent HT-PEM stack. The model will be validated with the experimental data from Advent. This model will be used for stack thermal management and for other activities in WP8.
	Type and Format of data	AutoCAD, SolidWorks, and COMSOL will be used for CAD drawing and simulation. The data will be reported in .pdf and .doc format.
	Reused-Data	Use of the existing CAD and experimental data provided by ADV Publication / Communication of project results on teamsite, homepage, etc. In the case of data reuse from literature, it will be cited in the report.
	Data origin	3D model of Advent stack
	Data size	Small (less than 1 GB overall), mainly documents, spreadsheets, CAD drawings, and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be used for thermal management of stack and other activities in WP8.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite.
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention.
	Naming conventions used	The file will be identified with a specific name and its name will not be changed or renamed.
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table.
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata	There are no standards foreseen to the metadata of data. The procedures to achieve the data and its treatment will

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	creation applied	be explained in respective deliverable of RESCUE.
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports and publications.
	How data will be made available	The data will be available for RESCUE project partners through share folder. Parts of the data will be made available for public by publishing in the RESCUE public deliverables which will be deposit at RESCUE webpage, with identified URL and scientific manuscripts which will be deposit in an open repository with an identified DOI.
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports and scientific publications.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable
2.4 FAIR DATA – Increase data re-use	Timing of data availability for re-use (incl.	Not applicable Data is confidential and restricted to the

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(through clarifying licenses)	indications on embargo)	project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. This is valid during the project duration and afterwards. Exceptions are public reports and scientific papers.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. This is valid during the project duration and afterwards. Exceptions are public reports and scientific papers.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators. Scientific papers will be reviewed by journal reviewers.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners.

Table 5. WP2 dataset management, Data Set 2.4

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12. Work Package 3: FC Module

DATA SET n. 3.1– Dual fuel FC unit construction and testing – WP 3 – Owner(s): ADV, CERTH		
1 DATA SUMMARY	Purpose of the Data	Data necessary for the documentation of the dual FC unit construction and testing, including drawings, testing and safety procedures, etc. Experimental results from the HIL testing procedure.
	Type and Format of data	Microsoft office data (*.pptx, *.docx, *.xlsx, *.pdf, *.mp4, …) or similar. Presentations, Reports (Periodic Reports, deliverables), PFD, P&ID, etc. Fuel cell design (.csv, .xlsx, .txt, .data, infoRun, .info, .txt, .csv) - Fuel cell tests (.csv, .xlsx, .txt, .data, infoRun, .info, .txt, .csv)
	Reused-Data	Use of existing PFD and P&ID provided by ADV Publication / Communication of project results on teamsite, homepage, etc. In the case of data reuse from literature, it will be cited in the report.
	Data origin	FC construction process FC experimental testing process
	Data size	Small (less than 5 GB overall), mainly documents, spreadsheets, drawings and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be useful for the partners during the project duration and afterwards.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention

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DATA SET n. 3.1– Dual fuel FC unit construction and testing – WP 3 – Owner(s): ADV, CERTH		
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	See chapter 3.1, file naming convention
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable

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DATA SET n. 3.1– Dual fuel FC unit construction and testing – WP 3 – Owner(s): ADV, CERTH		
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners

Table 6. WP3 dataset management, Data Set 3.1

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DATA SET n. 3.2– FC module redesign and construction – WP 3 – Owner(s): ADV, CERTH		
1 DATA SUMMARY	Purpose of the Data	Data necessary for the documentation of the dual FC module redesign and construction, including drawings and safety procedures, etc.
	Type and Format of data	Microsoft office data (*.pptx, *.docx, *.xlsx, *.pdf, *.mp4, …) or similar. Presentations, Reports (Periodic Reports, deliverables), PFD, P&ID, etc. Fuel cell module design (.sldprt, .slddrt, .sldasm, .csv, .xlsx, .txt, .data, infoRun, .info, .txt, .csv)
	Reused-Data	Use of existing PFD and P&ID provided by ADV Publication / Communication of project results on teamsite, homepage, etc. Proving data to project partner ADV In the case of data reuse from literature, it will be cited in the report.
	Data origin	FC module redesign process FC module construction process
	Data size	Small (less than 5 GB overall), mainly documents, spreadsheets, CAD files, drawings and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be useful for the partners during the project duration and afterwards.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Clear versioning approach	See chapter 3.1, file naming convention

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DATA SET n. 3.2– FC module redesign and construction – WP 3 – Owner(s): ADV, CERTH		
	Standards or procedures for metadata creation applied	See chapter 3.1, file naming convention
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable

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DATA SET n. 3.2– FC module redesign and construction – WP 3 – Owner(s): ADV, CERTH		
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners

Table 7. WP3 dataset management, Data Set 3.2

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DATA SET n. 3.3– Pre-testing of FC module – WP 3 – Owner(s): CERTH, ADV		
1 DATA SUMMARY	Purpose of the Data	Data necessary for the documentation of the experimental testing of the FC module, including drawings, testing and safety procedures, experimental results, etc.
	Type and Format of data	Microsoft office data (*.pptx, *.docx, *.xlsx, *.pdf, *.mp4, …) or similar. Presentations, Reports (Periodic Reports, deliverables), PFD, P&ID, etc. - Fuel cell module tests (.csv, .xlsx, .txt, .data, infoRun, .info, .txt, .csv)
	Reused-Data	Use of existing PFD and P&ID provided by ADV Publication / Communication of project results on teamsite, homepage, etc. In the case of data reuse from literature, it will be cited in the report.
	Data origin	FC construction process FC experimental testing process
	Data size	Small (less than 5 GB overall), mainly documents, spreadsheets, drawings and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be useful for the partners during the project duration and afterwards.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	See chapter 3.1, file naming convention

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DATA SET n. 3.3– Pre-testing of FC module – WP 3 – Owner(s): CERTH, ADV		
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.

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DATA SET n. 3.3– Pre-testing of FC module – WP 3 – Owner(s): CERTH, ADV		
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners

Table 8. WP3 dataset management, Data Set 3.3

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13. Work Package 4: FC & Fuel Cell Container

DATA SET n. 4.1– FC Container – WP 4 – Owner(s): ADV, CERTH, THW		
1 DATA SUMMARY	Purpose of the Data	Data necessary for the documentation of the dual FC Container design and construction including drawings and safety procedures, etc.
	Type and Format of data	Microsoft office data (*.pptx, *.docx, *.xlsx, *.pdf, *.mp4, …) or similar. Presentations, Reports (Periodic Reports, deliverables), PFD, P&ID, etc. Fuel cell Container design (.sldprt, .slddrt, .sldasm, .csv, .xlsx, .txt, .data, infoRun, .info, .txt, .csv)
	Reused-Data	Use of existing PFD and P&ID provided by ADV Publication / Communication of project results on teamsite, homepage, etc. Proving data to project partner ADV In the case of data reuse from literature, it will be cited in the report.
	Data origin	FC Container design process FC Container construction process
	Data size	Small (less than 5 GB overall), mainly documents, spreadsheets, CAD files, drawings and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be useful for the partners during the project duration and afterwards.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Clear versioning approach	See chapter 3.1, file naming convention

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DATA SET n. 4.1– FC Container – WP 4 – Owner(s): ADV, CERTH, THW		
	Standards or procedures for metadata creation applied	See chapter 3.1, file naming convention
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable

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DATA SET n. 4.1– FC Container – WP 4 – Owner(s): ADV, CERTH, THW		
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners

Table 9. WP4 dataset management, Data Set 4.1

DATA SET n. 4.2– Fuel Container – WP 4 – Owner(s): ADV, CERTH, THW		
1 DATA SUMMARY	Purpose of the Data	Microsoft office data (*.pptx, *.docx, *.xlsx, *.pdf, *.mp4, …) or similar. Presentations, Reports (Periodic Reports, deliverables), PFD, P&ID, etc. Fuel Container design (.sldprt, .slddrt, .sldasm, .csv, .xlsx, .txt, .data, infoRun, .info, .txt, .csv)

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DATA SET n. 4.2– Fuel Container – WP 4 – Owner(s): ADV, CERTH, THW		
	Type and Format of data	Use of existing PFD and P&ID provided by ADV Publication / Communication of project results on teamsite, homepage, etc. Proving data to project partner ADV In the case of data reuse from literature, it will be cited in the report.
	Reused-Data	Fuel Container design process Fuel Container construction process
	Data origin	Small (less than 5 GB overall), mainly documents, spreadsheets, CAD files, drawings and illustrative material
	Data size	See chapters 3.2 and 5.
	Data Security and Storage	Data will be useful for the partners during the project duration and afterwards.
	Data value (Long Term)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Search keywords approach	See chapter 3.1, file naming convention
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	As outlined in chapter 3.2
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2

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DATA SET n. 4.2– Fuel Container – WP 4 – Owner(s): ADV, CERTH, THW		
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	Access restrictions	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
	Data interoperability assessment	Not applicable
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Restrictions to data re-use	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.

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DATA SET n. 4.2– Fuel Container – WP 4 – Owner(s): ADV, CERTH, THW		
	Quality assurance process	Not applicable
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	See chapter 4 and project partners
	Data Management Responsibilities	Microsoft office data (*.pptx, *.docx, *.xlsx, *.pdf, *.mp4, …) or similar. Presentations, Reports (Periodic Reports, deliverables), PFD, P&ID, etc. Fuel Container design (.sldprt, .slddrt, .sldasm, .csv, .xlsx, .txt, .data, infoRun, .info, .txt, .csv)

Table 10. WP4 dataset management, Data Set 4.2

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DATA SET n. 4.3– System control and online monitoring – WP 4 – Owner(s): ADV, CERTH, THW		
1 DATA SUMMARY	Purpose of the Data	To design and develop the ICT solutions for the RESCUE system comprising of the FC and the fuel container including online monitoring system, control system to ensure safety and usability as well as a Human Machine Interface system.
	Type and Format of data	Microsoft office data (*.pptx, *.docx, *.xlsx, *.pdf, *.mp4, …) or similar. Presentations, Reports (Periodic Reports, deliverables), PFD, P&ID, etc. ICT solutions development (.csv, .xlsx, .txt, .data, infoRun, .info, .txt, .csv)
	Reused-Data	Use of existing PFD provided by ADV Publication / Communication of project results on teamsite, homepage, etc. Proving data to project partner ADV In the case of data reuse from literature, it will be cited in the report.
	Data origin	Process of developing the ICT solutions
	Data size	Small (less than 5 GB overall), mainly documents, spreadsheets, and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be useful for the partners during the project duration and afterwards.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Clear versioning approach	See chapter 3.1, file naming convention

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DATA SET n. 4.3– System control and online monitoring – WP 4 – Owner(s): ADV, CERTH, THW		
	Standards or procedures for metadata creation applied	See chapter 3.1, file naming convention
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable

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DATA SET n. 4.3– System control and online monitoring – WP 4 – Owner(s): ADV, CERTH, THW		
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners

Table 11. WP4 dataset management, Data Set 4.3

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14. Work Package 5: System integration

DATA SET n. 5.1 – Final system integration – WP 5 – Owner(s): ADV, CERTH, THW, PROACT		
1 DATA SUMMARY	Purpose of the Data	Data necessary for the documentation of the integration and the preliminary testing of the final RESCUE system including drawings, testing and safety procedures, experimental results, etc.
	Type and Format of data	Microsoft office data (*.pptx, *.docx, *.xlsx, *.pdf, *.mp4, …) or similar. Presentations, Reports (Periodic Reports, deliverables), PFD, P&ID, etc. - RESCUE system tests (.csv, .xlsx, .txt, .data, infoRun, .info, .txt, .csv)
	Reused-Data	Use of existing PFD and P&ID provided by ADV Publication / Communication of project results on teamsite, homepage, etc. In the case of data reuse from literature, it will be cited in the report.
	Data origin	RESCUE system integration process RESCUE system testing process
	Data size	Small (less than 5 GB overall), mainly documents, spreadsheets, drawings and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be useful for the partners during the project duration and afterwards.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Clear versioning approach	See chapter 3.1, file naming convention

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DATA SET n. 5.1 – Final system integration – WP 5 – Owner(s): ADV, CERTH, THW, PROACT		
	Standards or procedures for metadata creation applied	See chapter 3.1, file naming convention
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable

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DATA SET n. 5.1 – Final system integration – WP 5 – Owner(s): ADV, CERTH, THW, PROACT		
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners

Table 12. WP5 dataset management, Data Set 5.1

DATA SET n. 5.2– System ready for FAT and certification – WP 5 – Owner(s): ADV, PROACT, THW, DLR, CERTH		
1 DATA SUMMARY	Purpose of the Data	Data necessary for the documentation of factory acceptance testing (FAT) for the RESCUE system including drawings, testing and safety procedures, experimental results, etc.

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DATA SET n. 5.2– System ready for FAT and certification – WP 5 – Owner(s): ADV, PROACT, THW, DLR, CERTH		
	Type and Format of data	Microsoft office data (*.pptx, *.docx, *.xlsx, *.pdf, *.mp4, …) or similar. Presentations, Reports (Periodic Reports, deliverables), PFD, P&ID, etc. - RESCUE system tests (.csv, .xlsx, .txt, .data, infoRun, .info, .txt, .csv)
	Reused-Data	Use of existing PFD and P&ID provided by ADV Publication / Communication of project results on teamsite, homepage, etc. In the case of data reuse from literature, it will be cited in the report.
	Data origin	RESCUE system FAT testing process RESCUE system certification process
	Data size	Small (less than 5 GB overall), mainly documents, spreadsheets, drawings and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be useful for the partners during the project duration and afterwards.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	See chapter 3.1, file naming convention

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DATA SET n. 5.2– System ready for FAT and certification – WP 5 – Owner(s): ADV, PROACT, THW, DLR, CERTH		
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.

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DATA SET n. 5.2– System ready for FAT and certification – WP 5 – Owner(s): ADV, PROACT, THW, DLR, CERTH		
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners

Table 13. WP5 dataset management, Data Set 5.2

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DATA SET n. 5.3– RESCUE system transportation – WP 5 – Owner(s): DLR, PROACT		
1 DATA SUMMARY	Purpose of the Data	System description needed by the transport company
	Type and Format of data	Text, pictures, drawings
	Reused-Data	Certification data
	Data origin	Certification, system or component Manufacturer
	Data size	Small
	Data Security and Storage	RESCUE Teamsite
	Data value (Long Term)	medium
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	See chapter 3.1, file naming convention
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data availabilty has to be determined
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2

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DATA SET n. 5.3– RESCUE system transportation – WP 5 – Owner(s): DLR, PROACT		
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	To be determined by the partners. Dependend on which data is requested by the transporting company.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable To be determined.
	Data usability by Third Parties (after the end of the project)	To be determined.
	Restrictions to data re-use	Data confidentiality and restriction to be determined. Distribution to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners

Table 14. WP5 dataset management, Data Set 5.3

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15. Work Package 6: Laboratory Testing

DATA SET n. 6.1– Definition of the system test protocol – WP 6 – Owner(s): DLR, THW		
1 DATA SUMMARY	Purpose of the Data	System test plan
	Type and Format of data	Word (.docx) for internal plan, .pdf for public version
	Reused-Data	None
	Data origin	Generated in WP
	Data size	Small
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be useful for the partners and the public during the project duration and afterwards.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	See chapter 3.1, file naming convention
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Public report.
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2

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DATA SET n. 6.1– Definition of the system test protocol – WP 6 – Owner(s): DLR, THW		
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	No access restrictions, as it is a public report.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable
	Data usability by Third Parties (after the end of the project)	Can be used by third parties for future test procedures.
	Restrictions to data re-use	No restrictions.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners

Table 15. WP6 dataset management, Data Set 6.1

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DATA SET n. 6.2– Laboratory testing of RESCUE system – WP 6 – Owner(s): DLR		
1 DATA SUMMARY	Purpose of the Data	Data necessary for the documentation of the laboratory testing of the FC container, including drawings, testing and safety procedures, experimental results, etc.
	Type and Format of data	Microsoft office data (*.pptx, *.docx, *.xlsx, *.pdf, *.mp4, …) or similar. Presentations, Reports (Periodic Reports, deliverables), PFD, P&ID, etc. - Fuel cell module tests (.csv, .xlsx, .txt, .data, infoRun, .info, .txt, .csv)
	Reused-Data	Use of existing PFD and P&ID provided by ADV Publication / Communication of project results on teamsite, homepage, etc. In the case of data reuse from literature, it will be cited in the report.
	Data origin	FC container construction process FC container experimental testing process
	Data size	Small (less than 5 GB overall), mainly documents, spreadsheets, drawings and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be useful for the partners during the project duration and afterwards.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	See chapter 3.1, file naming convention

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DATA SET n. 6.2– Laboratory testing of RESCUE system – WP 6 – Owner(s): DLR		
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.

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DATA SET n. 6.2– Laboratory testing of RESCUE system – WP 6 – Owner(s): DLR		
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners

Table 16. WP6 dataset management, Data Set 6.2

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16. Work Package 7: Field Testing & Demonstration

DATA SET n. 7.1– Preparing field testing – WP 7 – Owner(s): THW, DLR, ADV		
1 DATA SUMMARY	Purpose of the Data	Text-Document with input on the tests planned for the field test, including necessary equipment, location and duration.
	Type and Format of data	Text, pictures, tables
	Reused-Data	-
	Data origin	-
	Data size	small
	Data Security and Storage	Will be stored on RESCUE teamsite
	Data value (Long Term)	medium
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	-
	Identifiability of data (refer to standard id mechanisms)	-
	Naming conventions used	-
	Search keywords approach	-
	Clear versioning approach	-
	Standards or procedures for metadata creation applied	-
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	-
	How data will be made available	-
	Methods or SW tools for data access	-

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DATA SET n. 7.1– Preparing field testing – WP 7 – Owner(s): THW, DLR, ADV		
	SW documentation and other information needed	-
	Repository for deposit of data, metadata, documentation and code	-
	Access restrictions	-
	Data interoperability assessment	-
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	-
	Data licensing for wide reuse	-
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	-
	Data usability by Third Parties (after the end of the project)	-
	Restrictions to data re-use	-
	Quality assurance process	-
	Length of time of data re-usability	-
	Costs estimates for making data FAIR	-
	Data Management Responsibilities	-

Table 17. WP7 dataset management, Data Set 7.1

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DATA SET n. 7.2– RESCUE installation and demonstration – WP 7 – Owner(s): THW, DLR, ADV		
1 DATA SUMMARY	Purpose of the Data	Text document with Report on the field tests
	Type and Format of data	Text, Pictures, tables
	Reused-Data	-
	Data origin	-
	Data size	Small
	Data Security and Storage	RESCUE teamsite
	Data value (Long Term)	-
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	-
	Identifiability of data (refer to standard id mechanisms)	-
	Naming conventions used	-
	Search keywords approach	-
	Clear versioning approach	-
	Standards or procedures for metadata creation applied	-
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	-
	How data will be made available	-
	Methods or SW tools for data access	-
	SW documentation and other information needed	-

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DATA SET n. 7.2– RESCUE installation and demonstration – WP 7 – Owner(s): THW, DLR, ADV		
	Repository for deposit of data, metadata, documentation and code	-
	Access restrictions	-
	Data interoperability assessment	-
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	-
	Data licensing for wide reuse	-
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	-
	Data usability by Third Parties (after the end of the project)	-
	Restrictions to data re-use	-
	Quality assurance process	-
	Length of time of data re-usability	-
	Costs estimates for making data FAIR	-
	Data Management Responsibilities	-

Table 18. WP7 dataset management, Data Set 7.2

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DATA SET n. 7.3– Final evaluation – WP 7 – Owner(s): THW, DLR, ADV		
1 DATA SUMMARY	Purpose of the Data	Final evaluation Protocol will summarize the end-user results of the field tests and evaluate which requirements are fulfilled by the technology
	Type and Format of data	Text, pictures, tables
	Reused-Data	-
	Data origin	-
	Data size	Small
	Data Security and Storage	RESCUE Teamsite
	Data value (Long Term)	-
2. FAIR DAT7 **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	--
	Identifiability of data (refer to standard id mechanisms)	-
	Naming conventions used	-
	Search keywords approach	-
	Clear versioning approach	-
	Standards or procedures for metadata creation applied	-
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	-
	How data will be made available	-
	Methods or SW tools for data access	-
	SW documentation and other information needed	-

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DATA SET n. 7.3– Final evaluation – WP 7 – Owner(s): THW, DLR, ADV		
	Repository for deposit of data, metadata, documentation and code	-
	Access restrictions	-
	Data interoperability assessment	-
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	-
	Data licensing for wide reuse	-
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	-
	Data usability by Third Parties (after the end of the project)	-
	Restrictions to data re-use	-
	Quality assurance process	-
	Length of time of data re-usability	-
	Costs estimates for making data FAIR	-
	Data Management Responsibilities	-

Table 19. WP7 dataset management, Data Set 7.3

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17. Work Package 8: System Durability & Flexibility

DATA SET n. 8.1– Proof of long-term durability on single cells – WP 8 – Owner(s): DLR, ADV		
1 DATA SUMMARY	Purpose of the Data	The data will be used to analyse FC component robustness towards the aim of multifuel capability of the system. This requires a contamination and degradation study of the main components MEA and BPP provided by ADV. Furthermore, post mortem analysis of components will be done to identify the impact of fuel compositions on HT-PEMFC component stabilities. This includes physical and analytical characterisation methods.
	Type and Format of data	- Test procedure, experimental data (lab journal, .pdf) - Fuel cell tests (.csv, .xlsx, .txt, .data, infoRun, .info, .txt, .csv) - Post-mortem analysis (.bmp, .log, .tiff, .txt, .pdf, .plu, .jpg, .xlpkgm .xlsx, .docx, .csv, .mp4, .png, .xml, .log, .ascii, .idet, .imet) - Hazard and Risk analysis (.docx, .pdf) - Data analysis with Origin, Excel, etc. (.opju, .png, .tiff, .bmp, .xlsx, . mdb) - Presentation of results (.pptx)
	Reused-Data	- Publication / Communication of project results on teamsite, homepage, etc. - Proving data to project partner DTU WP 8.3 - In the case of data reuse from literature, it will be cited in the report.
	Data origin	- Observational – data from the process - Experimental – data from fuel cell tests - Experimental – data from post mortem analysis
	Data size	Estimated up to 10 TB per year (overall adding up to approximately 40 TB)
	Data Security and Storage	The report file and the raw data from the analysis will be stored in the network, teamsite of RESCUE project, specifically in the WP8 folder. Also, the data produced during the project is stored on internal servers or institutional data platforms of DLR. In addition, backups will be made in DLR to ensure the preservation of the data.

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DATA SET n. 8.1– Proof of long-term durability on single cells – WP 8 – Owner(s): DLR, ADV		
	Data value (Long Term)	The data would be very useful for all the consortium partners. The value for the partners of long-term use of data from testing is estimated to be very high, due to the significance of the data and the scarcity in literature of similar datasets.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	Metadata showing test results performances will be extrapolated from the devices and documented
	Identifiability of data (refer to standard id mechanisms)	No standard permanent identifier is expected to be used
	Naming conventions used	File naming: "YYMMDD_sample_*progressive test number*" or similar
	Search keywords approach	No keywords generation, indexing or tagging is expected to be used
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	The primary factor will be the type of SPS utilized.
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	The data access is restricted to the consortium members. Exceptions are relevant data for publications, reports, etc. in agreement with the consortium.
	How data will be made available	The data will be available only through dedicated channel already agreed with consortium partners or upon specific partner request.
	Methods or SW tools for data access	DLR project representatives will be used to store and share the data.
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	Internal repository will be used to store data.

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DATA SET n. 8.1– Proof of long-term durability on single cells – WP 8 – Owner(s): DLR, ADV		
	Access restrictions	The data shared are limited to consortium partners. Exceptions are relevant data for publications, reports, etc. in agreement with the consortium.
	Data interoperability assessment	DLR will already give high level of interoperability.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	No dedicated vocabulary is expected to be used. Data shared will be put in .pdf, .png/.jpg or .xlsx. It will depend on the typology and source of the data.
	Data licensing for wide reuse	The data created are limited to consortium partners. Exceptions are relevant data for publications, reports, etc. in agreement with the consortium.
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable.
	Data usability by Third Parties (after the end of the project)	The restricted data will not be usable for third parties after the end of the project. The part of data that will be opened, will be usable for third parties. If part of the restricted data is agreed to be shared with third parties during or after the project, and agreements between partners and the Third Party will be required as NDA. Any third parties utilization after the end of the project of datasets created by DLR requires the consent of DLR.
	Restrictions to data re-use	Confidentiality of data shared is restricted to consortium partners.
	Quality assurance process	To ensure the quality of the data, measurements will be made following robust and reliable characterization procedures. Also reference materials will be used as always as possible. The results will be compared with data from peer reviewed scientific papers. In case of any inconsistency, the samples and/or its characterization will be repeated. Some of the data will be used to write peer review scientific articles. Finally, international units will be employed to describe the properties of materials.

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DATA SET n. 8.1– Proof of long-term durability on single cells – WP 8 – Owner(s): DLR, ADV		
	Length of time of data re-usability	No time limit.
	Costs estimates for making data FAIR	The public data through scientific manuscripts, (i.e. open-source paper) are done via DEAL-contract of DLR.
	Data Management Responsibilities	DLR project representatives will be the responsible of the data: add new data, ensure the quality of the data, ensure that the material database contains all the materials developed). Results are checked using the four-eyes principle.

Table 20. WP8 dataset management, Data Set 8.1

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DATA SET n. 8.2– Post mortem MEA and BoP analysis – WP 8 – Owner(s): DLR, ADV		
1 DATA SUMMARY	Purpose of the Data	The purpose of data is to detect chemical properties and stabilities via post mortem analysis of components like MEAs, BPPs, gaskets and end plates removed from the stacks of the tested FC unit in WP3 provided by CERTH and removed from the stacks of the tested system in WP6/7 at DLR/THW.
	Type and Format of data	- Post-mortem analysis (.bmp, .log, .tiff, .txt, .pdf, .plu, .jpg, .xlpkg, .xlsx, .docx, .csv, .mp4, .png, .xml, .log, .ascii, .idet, .imet) - Hazard and Risk analysis (.docx, .pdf) - Data analysis with Origin, Excel, etc. (.opju, .png, .tiff, .bmp, .xlsx, . mdb) - Presentation of results (.pptx)
	Reused-Data	- Publication / Communication of project results on teamsite, homepage, etc. - In the case of data reuse from literature, it will be cited in the report.
	Data origin	The origin/source of the data will be experimental data.
	Data size	Estimated up to 10 TB per year (overall adding up to approximately 40 TB)
	Data Security and Storage	The report file and the raw data from the analysis will be stored in the network, teamsite of RESCUE project, specifically in the WP8 folder. Also, the data produced during the project is stored on internal servers or institutional data platforms of DLR. In addition, backups will be made in DLR to ensure the preservation of the data.
	Data value (Long Term)	The data would be very useful for all the consortium partners. The value for the partners of long-term use of data from testing is estimated to be very high, due to the significance of the data and the scarcity in literature of similar datasets.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	Metadata showing the results of materials degradation will be extrapolated from the devices and documented.
	Identifiability of data (refer to standard id mechanisms)	No standard permanent identifier is expected to be used.
	Naming conventions used	File naming: "YYMMDD_sample_ *progressive number*" or similar

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DATA SET n. 8.2– Post mortem MEA and BoP analysis – WP 8 – Owner(s): DLR, ADV		
	Search keywords approach	No keywords generation, indexing or tagging is expected to be used.
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	No standard is expected to be used.
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	When partial post mortem analyses are finished, the related partners are informed receiving the results by DLR.
	How data will be made available	The data will be available only through dedicated channel already agreed with consortium partners or upon specific partner request.
	Methods or SW tools for data access	DLR project representatives will be used to store and share the data.
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	Internal repository will be used to store data.
	Access restrictions	The data shared are limited to consortium partners. Exceptions are relevant data for publications, reports, etc. in agreement with the consortium.
	Data interoperability assessment	DLR will already give high level of interoperability.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	No dedicated vocabulary is expected to be used. Data shared will be put in .pdf, .png/.jpg or .xlsx. It will depend on the typology and source of the data
	Data licensing for wide reuse	The data created are limited to consortium partners. Exceptions are relevant data for publications, reports, etc. in agreement with the consortium.

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DATA SET n. 8.2– Post mortem MEA and BoP analysis – WP 8 – Owner(s): DLR, ADV		
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable.
	Data usability by Third Parties (after the end of the project)	The restricted data will not be usable for third parties after the end of the project. The part of data that will be opened, will be usable for third parties. If part of the restricted data is agreed to be shared with third parties during or after the project, and agreements between partners and the Third Party will be required as NDA. Any third parties utilization after the end of the project of datasets created by DLR requires the consent of DLR.
	Restrictions to data re-use	Confidentiality of data restricted to consortium partners.
	Quality assurance process	To ensure the quality of the data, measurements will be made following robust and reliable characterization procedures. Also reference materials will be used as always as possible. The results will be compared with data from peer reviewed scientific papers. In case of any inconsistency, the samples and/or its characterization will be repeated. Some of the data will be used to write peer review scientific articles. Finally, international units will be employed to describe the properties of materials.
	Length of time of data re-usability	Not applicable.
	Costs estimates for making data FAIR	The public data through scientific manuscripts, (i.e. open-source paper) are done via DEAL-contract of DLR.
	Data Management Responsibilities	DLR project representatives will be the responsible of the data: add new data, ensure the quality of the data, ensure that the material database contains all the materials developed). Results are checked using the four-eyes principle.

Table 21. WP8 dataset management, Data Set 8.2

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DATA SET n. 8.3– Heat integration for producing warm water – WP 8 – Owner(s): DTU, ADV, DLR		
1 DATA SUMMARY	Purpose of the Data	The purpose of the data is to perform a heat integration analysis to investigate the possibility of warm water production for daily uses during natural disasters.
	Type and Format of data	COMSOL, EES, and matlab will be used for simulation. The data will be reported in .pdf and .doc format.
	Reused-Data	Use of the existing 3D model from WP2 and experimental data provided by ADV. Publication / Communication of the project results on teamsite, homepage, etc. In the case of data reuse from literature, it will be cited in the report.
	Data origin	3D model of Advent stack, system and BOP model from CERCH and Advent
	Data size	Small (less than 1 GB overall), mainly documents, plots, spreadsheets, and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be used for analyzing the system heat integration capability for warm water production.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite.
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention.
	Naming conventions used	The file will be identified with a specific name and its name will not be changed or renamed.
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table.
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	There are no standards foreseen to the metadata of data. The procedures to achieve the data and its treatment will be explained in respective deliverable of RESCUE.

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Project RESCUE with Grant Agreement number 101192169
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DATA SET n. 8.3– Heat integration for producing warm water – WP 8 – Owner(s): DTU, ADV, DLR		
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports and publications.
	How data will be made available	The data will be available for RESCUE project partners through share folder. Parts of the data will be made available for public by publishing in the RESCUE public deliverables which will be deposit at RESCUE webpage, with identified URL and scientific manuscripts which will be deposit in an open repository with an identified DOI.
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports and scientific publications.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable

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DATA SET n. 8.3– Heat integration for producing warm water – WP 8 – Owner(s): DTU, ADV, DLR		
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. This is valid during the project duration and afterwards. Exceptions are public reports and scientific papers.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. This is valid during the project duration and afterwards. Exceptions are public reports and scientific papers.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators. Scientific papers will be reviewed by journal reviewers.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners.

Table 22. WP8 dataset management, Data Set 8.3

Clean Hydrogen Partnership
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Project RESCUE with Grant Agreement number 101192169
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DATA SET n. 8.4– Transient operation of RESCUE system – WP 8 – Owner(s): DTU, CERTH, ADV, DLR		
1 DATA SUMMARY	Purpose of the Data	The purpose of the data is the transient simulation of HT-PEM stack during a natural disaster. The simulation results help to understand the performance of stack during the variation of produced power.
	Type and Format of data	COMSOL, EES, and MATLAB will be used for simulation. The data will be reported in .pdf and .doc format.
	Reused-Data	Use of the existing 3D model from WP2 and experimental data provided by ADV. Publication / Communication of the project results on teamsite, homepage, etc. In the case of data reuse from literature, it will be cited in the report.
	Data origin	3D model of Advent stack, system and BOP model from CERCH and Advent
	Data size	Small (less than 1 GB overall), mainly documents, plots, spreadsheets, and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be used for analyzing the stack and system performance during transient operation and variation of load.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite.
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention.
	Naming conventions used	The file will be identified with a specific name and its name will not be changed or renamed.
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table.
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	There are no standards foreseen to the metadata of data. The procedures to achieve the data and its treatment will be explained in respective deliverable of RESCUE.

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Project RESCUE with Grant Agreement number 101192169
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DATA SET n. 8.4– Transient operation of RESCUE system – WP 8 – Owner(s): DTU, CERTH, ADV, DLR		
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports and publications.
	How data will be made available	The data will be available for RESCUE project partners through share folder. Parts of the data will be made available for public by publishing in the RESCUE public deliverables which will be deposit at RESCUE webpage, with identified URL and scientific manuscripts which will be deposit in an open repository with an identified DOI.
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports and scientific publications.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable

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DATA SET n. 8.4– Transient operation of RESCUE system – WP 8 – Owner(s): DTU, CERTH, ADV, DLR		
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. This is valid during the project duration and afterwards. Exceptions are public reports and scientific papers.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. This is valid during the project duration and afterwards. Exceptions are public reports and scientific papers.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators. Scientific papers will be reviewed by journal reviewers.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners.

Table 23. WP8 dataset management, Data Set 8.4

Clean Hydrogen Partnership
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Project RESCUE with Grant Agreement number 101192169
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DATA SET n. 8.5– Degradation effects on RESCUE performance – WP 8 – Owner(s): DTU, DLR, ADV		
1 DATA SUMMARY	Purpose of the Data	The purpose of the data is to model and understand the degradation behaviour of HT-PEM cells during its lifetime. The simulation results help to discover methods to mitigate the degradation of HT-PEM stack.
	Type and Format of data	COMSOL, EES, and MATLAB will be used for simulation. The data will be reported in .pdf and .doc format.
	Reused-Data	Use of the existing 3D model from WP2 and long term experimental data provided by DLR. Publication / Communication of the project results on teamsite, homepage, etc. In the case of data reuse from literature, it will be cited in the report.
	Data origin	3D model of Advent stack, 2D models for modelling the EIS measurements
	Data size	Small (less than 1 GB overall), mainly documents, plots, spreadsheets, and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be used for discovering and proposing new methods to reduce the degradation of HT-PEM stack.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite.
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention.
	Naming conventions used	The file will be identified with a specific name and its name will not be changed or renamed.
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table.
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	There are no standards foreseen to the metadata of data. The procedures to achieve the data and its treatment will be explained in respective deliverable of RESCUE.

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Project RESCUE with Grant Agreement number 101192169
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DATA SET n. 8.5– Degradation effects on RESCUE performance – WP 8 – Owner(s): DTU, DLR, ADV		
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports and publications.
	How data will be made available	The data will be available for RESCUE project partners through share folder. Parts of the data will be made available for public by publishing in the RESCUE public deliverables which will be deposit at RESCUE webpage, with identified URL and scientific manuscripts which will be deposit in an open repository with an identified DOI.
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports and scientific publications.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable

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DATA SET n. 8.5– Degradation effects on RESCUE performance – WP 8 – Owner(s): DTU, DLR, ADV		
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. This is valid during the project duration and afterwards. Exceptions are public reports and scientific papers.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. This is valid during the project duration and afterwards. Exceptions are public reports and scientific papers.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators. Scientific papers will be reviewed by journal reviewers.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners.

Table 24. WP8 dataset management, Data Set 8.5

Clean Hydrogen Partnership
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Project RESCUE with Grant Agreement number 101192169
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DATA SET n. 8.6– Internal fuel mixing – WP 8 – Owner(s): CERTH, ADV		
1 DATA SUMMARY	Purpose of the Data	Data necessary for the documentation of the internal fuel mixing study, including drawings, testing and safety procedures, etc.
	Type and Format of data	Microsoft office data (*.pptx, *.docx, *.xlsx, *.pdf, *.mp4, …) or similar. Presentations, Reports (Periodic Reports, deliverables), PFD, P&ID, etc. - Internal fuel mixing design (.csv, .xlsx, .txt, .data, infoRun, .info, .txt, .csv)
	Reused-Data	Use of existing PFD and P&ID provided by ADV Publication / Communication of project results on teamsite, homepage, etc. In the case of data reuse from literature, it will be cited in the report.
	Data origin	Internal mixing design process
	Data size	Small (less than 5 GB overall), mainly documents, spreadsheets, drawings and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be useful for the partners during the project duration and afterwards.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	See chapter 3.1, file naming convention

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DATA SET n. 8.6– Internal fuel mixing – WP 8 – Owner(s): CERTH, ADV		
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.

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DATA SET n. 8.6– Internal fuel mixing – WP 8 – Owner(s): CERTH, ADV		
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners

Table 25. WP8 dataset management, Data Set 8.6

Clean Hydrogen Partnership
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Project RESCUE with Grant Agreement number 101192169
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DATA SET n. 8.7– Upscale and applicability – WP 8 – Owner(s): ADV, CERTH		
1 DATA SUMMARY	Purpose of the Data	Data necessary for the documentation of the feasibility assessment and techno-economic analysis for the upscale of the RESCUE system.
	Type and Format of data	Microsoft office data (*.pptx, *.docx, *.xlsx, *.pdf, *.mp4, …) or similar. Presentations, Reports (Periodic Reports, deliverables), PFD, etc.
	Reused-Data	Use of existing PFD provided by ADV Publication / Communication of project results on teamsite, homepage, etc. In the case of data reuse from literature, it will be cited in the report.
	Data origin	Techno-economic analysis process
	Data size	Small (less than 5 GB overall), mainly documents, spreadsheets, drawings and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	Data will be useful for the partners, especially the end user, mainly after the project.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	See chapter 3.1, file naming convention

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DATA SET n. 8.7– Upscale and applicability – WP 8 – Owner(s): ADV, CERTH		
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.

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DATA SET n. 8.7– Upscale and applicability – WP 8 – Owner(s): ADV, CERTH		
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners

Table 26. WP8 dataset management, Data Set 8.7

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18. Work Package 9: Certification

DATA SET n. 9.1– Certification during RESCUE – WP 9 – Owner(s): PROACT		
1 DATA SUMMARY	Purpose of the Data	To document the certification processes and activities related to the RESCUE system, ensuring compliance with applicable national and international regulations for fuel cell technologies.
	Type and Format of data	– Certification reports (.docx, .pdf) – Regulatory compliance documents (.docx, .pdf) – Inspection reports (.docx, .pdf) – Communication records with certification bodies (.docx, .pdf, .msg)
	Reused-Data	Reference to Regulations, Directives, codes, international and European standards as well as existing certifications.
	Data origin	Primary: Certification and inspection activities conducted within RESCUE. Secondary: External regulatory frameworks and certification authorities.
	Data size	Small (estimated below 1 GB), composed mainly of textual documents and structured reports.
	Data Security and Storage	Data will be stored on the RESCUE teamsite with restricted access. Data produced during the project will be stored on ProAct's Microsoft SharePoint, with regular backups maintained on an external hard drive for redundancy.
	Data value (Long Term)	High value for legal compliance, future similar certification processes and for supporting replication of RESCUE system deployment.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	As per the teamsite metadata standards.
	Identifiability of data (refer to standard id mechanisms)	No standard permanent identifier is expected to be used.
	Naming conventions used	File naming: "*type of document*_*progressive version*" or similar.
	Search keywords approach	No keywords generation, indexing or tagging is expected to be used.
	Clear versioning approach	See chapter 3.1, file naming convention

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DATA SET n. 9.1– Certification during RESCUE – WP 9 – Owner(s): PROACT		
	Standards or procedures for metadata creation applied	The primary factor will be the type of SPS utilized.
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data access is restricted to the consortium members. Exceptions are relevant data for publications, reports, etc. in agreement with the consortium. Certificates will be made public.
	How data will be made available	The data will be available only through dedicated channel already agreed with consortium partners or upon specific partner request.
	Methods or SW tools for data access	ProAct's project representatives will be used to store and share data.
	SW documentation and other information needed	As outlined in chapter 3.2.
	Repository for deposit of data, metadata, documentation and code	Internal repository will be used to store data.
	Access restrictions	The data shared are limited to consortium partners. Exceptions are relevant data for publications, reports, etc. in agreement with the consortium. Certificates will be made public.
	Data interoperability assessment	ProAct will already give high level of interoperability.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	No dedicated vocabulary is expected to be used. Terminology based on as Regulations, Directives, codes, international and European standards. Data shared will be in .pdf, .docx or .xlsx formats. It will depend on the typology and source of the data.
	Data licensing for wide reuse	The data created are limited to consortium partners. Exceptions are relevant data for publications, reports, etc. in agreement with the consortium. Certificates will be made public.

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DATA SET n. 9.1– Certification during RESCUE – WP 9 – Owner(s): PROACT		
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable.
	Data usability by Third Parties (after the end of the project)	Data usability by Third Parties is subject to consortium agreement (NDA signing).
	Restrictions to data re-use	No restriction to re-use of data.
	Quality assurance process	Data quality will be guaranteed by peer reviewing and by certification bodies.
	Length of time of data re-usability	Not applicable.
	Costs estimates for making data FAIR	Possible certification body fee. All costs will be covered by project funding.
	Data Management Responsibilities	ProAct will be responsible of data management and quality of data.

Table 27. WP9 dataset management, Data Set 9.1

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DATA SET n. 9.2 Certification beyond RESCUE – WP 9 – Owner(s): PROACT		
1 DATA SUMMARY	Purpose of the Data	To document the preparation and recommendations for certification processes applicable to deployments of the RESCUE system beyond the project's lifetime, enabling wider adoption and ensuring regulatory compliance in future commercial or humanitarian uses.
	Type and Format of data	– Recommendations for future certifications (.docx, .pdf) – Communication records with external stakeholders (.msg, .docx) – Standardization and regulatory roadmap documents (.pdf)
	Reused-Data	Use of existing certification practices, international regulations and lessons learned during the RESCUE project.
	Data origin	– Primary: Internal analyses and strategy development activities. – Secondary: External certification authority guidelines, regulatory frameworks.
	Data size	Small (less than 1 GB overall), mainly composed of text documents and planning reports.
	Data Security and Storage	Data will be stored on the RESCUE teamsite with restricted access. Data produced during the project will be stored on ProAct's Microsoft SharePoint, with regular backups maintained on an external hard drive for redundancy.
	Data value (Long Term)	High value for the future scalability, commercialization, and standardization of RESCUE-type systems.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	As per the teamsite metadata standards.
	Identifiability of data (refer to standard id mechanisms)	No standard permanent identifier is expected to be used.
	Naming conventions used	File naming: "*type of document*_*progressive version*" or similar.
	Search keywords approach	No keywords generation, indexing or tagging is expected to be used.
	Clear versioning approach	See chapter 3.1, file naming convention

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DATA SET n. 9.2 Certification beyond RESCUE – WP 9 – Owner(s): PROACT		
	Standards or procedures for metadata creation applied	The primary factor will be the type of SPS utilized.
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data access is restricted to the consortium members. Exceptions are relevant data for publications, reports, etc. in agreement with the consortium. A "future certification" report will be made public.
	How data will be made available	The data will be available only through dedicated channel already agreed with consortium partners or upon specific partner request.
	Methods or SW tools for data access	ProAct's project representatives will be used to store and share data.
	SW documentation and other information needed	As outlined in chapter 3.2.
	Repository for deposit of data, metadata, documentation and code	Internal repository will be used to store data.
	Access restrictions	The data shared are limited to consortium partners. Exceptions are relevant data for publications, reports, etc. in agreement with the consortium. A "future certification" report will be made public.
	Data interoperability assessment	ProAct will already give high level of Interoperability.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	No dedicated vocabulary is expected to be used. Terminology based on as Regulations, Directives, codes, international and European standards. Data shared will be in .pdf, .docx format. It will depend on the typology and source of the data.
	Data licensing for wide reuse	The data created are limited to consortium partners. Exceptions are relevant data for publications, reports, etc. in agreement with the consortium. A "future certification" report will be made public.

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DATA SET n. 9.2 Certification beyond RESCUE – WP 9 – Owner(s): PROACT		
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable.
	Data usability by Third Parties (after the end of the project)	Public report has no limitation in terms of use by third parties. Data usability by Third Parties is subject to consortium agreement (NDA signing).
	Restrictions to data re-use	No restriction to re-use of data.
	Quality assurance process	Data quality will be guaranteed by peer reviewing and by certification bodies.
	Length of time of data re-usability	Not applicable.
	Costs estimates for making data FAIR	Possible certification body fee. All costs will be covered by project funding.
	Data Management Responsibilities	ProAct will be responsible of data management and quality of data.

Table 28. WP9 dataset management, Data Set 9.2

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19. Work Package 10: Dissemination and Exploitation

DATA SET n. 10.1 – Dissemination – WP 10 – Owner(s): DLR, all partners		
1 DATA SUMMARY	Purpose of the Data	Ensuring dissemination and exploitation of RESCUE results and system
	Type and Format of data	- Audiovisual: .jpg, .png, .mp4 - Text: .docx, .pptx - Numeric: .xlsx - Specific: Social networks, teamsite, website - Report: .docx
	Reused-Data	Use of internet data related to the topic of the project to keep the networks active with news from the sector. Main source: reliable media. Data related to previous workshops.
	Data origin	- Observational: readings, images, etc. - Experimental – data from lab devices
	Data size	500 MB up to 10 GB (growing during the project duration)
	Data Security and Storage	Data will be stored in office computer and Institute Central Data storage, The information will be securely stored and saved on teamsite platform equipment that only the RESCUE consortium has access to.
	Data value (Long Term)	The data will allow the project to capitalise on the results, monitoring and following up.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	Metadata showing the project results will be extrapolated from the devices and documented.
	Identifiability of data (refer to standard id mechanisms)	No standard permanent identifier is expected to be used
	Naming conventions used	File naming: "YYMMDD_title_author_event_public form" or similar
	Search keywords approach	Indicate the approach to keywords generation, indexing and tagging. Hydrogen, HT-PEM Fuel Cell, European project, European consortium
	Clear versioning approach	See chapter 3.1, file naming convention
	Standards or procedures for metadata creation applied	No standard is expected to be used.

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DATA SET n. 10.1 – Dissemination – WP 10 – Owner(s): DLR, all partners		
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	The information produced will be carefully stored by the consortium and the communication team.
	How data will be made available	Non-confidential and public data will be available in relevant deliverables. The public report will be published on the project website.
	Methods or SW tools for data access	DLR project representatives will be used to store and share the data.
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	Communication and dissemination information will be stored in the teamsite generated by DLR. This information will be visible to all consortium members for their access.
	Access restrictions	The internal data shared are limited to consortium partners. Public data relevant for publications, reports, etc. will be shared in agreement with the consortium.
	Data interoperability assessment	DLR will already give high level of interoperability.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	No dedicated vocabulary is expected to be used. Data shared will be put in .pdf or .docx. It will depend on the typology and source of the data.
	Data licensing for wide reuse	The internal data shared are limited to consortium partners. Public data relevant for publications, reports, etc. will be shared in agreement with the consortium.
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable.
	Data usability by Third Parties (after the end of the project)	Public report has no limitation in terms of use by third parties.
	Restrictions to data re-use	No restriction to re-use of data.

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DATA SET n. 10.1 – Dissemination – WP 10 – Owner(s): DLR, all partners		
	Quality assurance process	Data quality will be guaranteed by peer reviewing.
	Length of time of data re-usability	Not applicable.
	Costs estimates for making data FAIR	Costs are mainly personnel effort and eventually presentation of a poster to scientific fairs. All costs will be covered by project funding.
	Data Management Responsibilities	DLR will be responsible of data management and quality of data.

Table 29. WP10 dataset management, Data Set 10.1

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DATA SET n. 10.2 – Scientific workshop and public event – WP 10 – Owner(s): DLR, THW		
1 DATA SUMMARY	Purpose of the Data	Its societal acceptance is crucial and promoted through knowledge sharing and dissemination via two workshops: scientific workshop with experts from industry and science at DLR and event at THW for interest groups with RESCUE system demonstration
	Type and Format of data	- Text/presentation: .docx, .pptx - Audiovisual: .jpg, .png, .mp4 - Numeric: .xlsx - Specific: Social networks, website - Report/protocol: .docx
	Reused-Data	Use of internet data related to the topic of the project to keep the networks active with news from the sector. Main source: reliable media. Data related to previous workshops.
	Data origin	- Presentation files - processing of data - Experimental data – data from lab devices, experiments, simulations, etc.
	Data size	- estimated 1 to 40 MB per file
	Data Security and Storage	Data will be stored in office computer and Institute Central Data storage, The information will be securely stored and saved on teamsite platform equipment that only the RESCUE consortium has access to. Public relevant data will be shared in agreement with partners.
	Data value (Long Term)	The data will allow the project to capitalise on the results, monitoring and following up.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	Metadata showing the project results will be extrapolated from the devices and documented.
	Identifiability of data (refer to standard id mechanisms)	No standard permanent identifier is expected to be used
	Naming conventions used	File naming: "YYMMDD_title_author" or similar
	Search keywords approach	Indicate the approach to keywords generation, indexing and tagging. Hydrogen, HT-PEM Fuel Cell, European project, European consortium
	Clear versioning approach	See chapter 3.1, file naming convention

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DATA SET n. 10.2 – Scientific workshop and public event – WP 10 – Owner(s): DLR, THW		
	Standards or procedures for metadata creation applied	No standard is expected to be used.
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	The information produced will be carefully stored by the consortium and the communication team. Ownership of the data will belong to the workshop organiser and data providers. Non-public data such as contact details of the registered workshop participants would be accessible to the workshop organiser authorised personnel only following GDPR.
	How data will be made available	Non-confidential and public data will be available for workshop participants. The public data will be published on the project website and/or send by mail.
	Methods or SW tools for data access	DLR project representatives will be used to store and share the data.
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	Communication and dissemination information will be stored in the teamsite generated by DLR. This information will be visible to all consortium members for their access.
	Access restrictions	Public data relevant for publications, reports, etc. will be shared in agreement with the consortium.
	Data interoperability assessment	DLR will already give high level of interoperability
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	No dedicated vocabulary is expected to be used. Data shared will be put in .pdf or .docx. It will depend on the typology and source of the data.
	Data licensing for wide reuse	The internal data shared are limited to consortium partners. Public relevant data will be shared in agreement with the consortium.

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DATA SET n. 10.2 – Scientific workshop and public event – WP 10 – Owner(s): DLR, THW		
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable.
	Data usability by Third Parties (after the end of the project)	Public publications have no limitation in terms of use by third parties.
	Restrictions to data re-use	No restriction to re-use of data.
	Quality assurance process	Data quality will be guaranteed by peer reviewing.
	Length of time of data re-usability	Not applicable.
	Costs estimates for making data FAIR	All costs will be covered by project funding.
	Data Management Responsibilities	DLR will be responsible of data management and quality of data.

Table 30. WP10 dataset management, Data Set 10.2

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DATA SET n. 10.3 – Commercialisation and exploitation – WP 10 – Owner(s): ADV, CERTH, DTU, THW		
1 DATA SUMMARY	Purpose of the Data	Maintenance handbook, Commercialization plan including cost estimation and Exploitation plan including intellectual properties (IPs), copyrights, trademarks etc.
	Type and Format of data	Microsoft office data (*.pptx, *.docx, *.xlsx, *.pdf, *.mp4, …) or similar. Presentations, Reports (Periodic Reports, deliverables), PFD, P&ID, Drawings etc.
	Reused-Data	Use of existing P&ID, PFD and Drawings provided by ADV Publication / Communication of project results on teamsite, homepage, etc. In the case of data reuse from literature, it will be cited in the report.
	Data origin	Commercialization plan process Exploitation plan process
	Data size	Small (less than 5 GB overall), mainly documents, spreadsheets, drawings and illustrative material
	Data Security and Storage	See chapters 3.2 and 5.
	Data value (Long Term)	The data will allow the project to capitalise on the results, monitoring and following up.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	See chapter 3.1, file naming convention, and 3.2, folder architecture of the teamsite
	Identifiability of data (refer to standard id mechanisms)	See chapter 3.1, file naming convention
	Naming conventions used	See chapter 3.1, file naming convention
	Search keywords approach	See chapter 3.1, file naming convention, and keywords related to the management organization (e.g. date, type of document as outlined above in this table
	Clear versioning approach	See chapter 3.1, file naming convention

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DATA SET n. 10.3 – Commercialisation and exploitation – WP 10 – Owner(s): ADV, CERTH, DTU, THW		
	Standards or procedures for metadata creation applied	See chapter 3.1, file naming convention
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	How data will be made available	As outlined in chapter 3.2
	Methods or SW tools for data access	As outlined in chapter 3.2
	SW documentation and other information needed	As outlined in chapter 3.2
	Repository for deposit of data, metadata, documentation and code	As outlined in chapter 3.2
	Access restrictions	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports.
	Data interoperability assessment	Abbreviations, vocabulary and similar are defined in each file, if applicable, and follow common project management principles.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	Not applicable
	Data licensing for wide reuse	Not applicable

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DATA SET n. 10.3 – Commercialisation and exploitation – WP 10 – Owner(s): ADV, CERTH, DTU, THW		
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	Not applicable Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Data usability by Third Parties (after the end of the project)	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Restrictions to data re-use	Data is confidential and restricted to the project partners only, to project partners and European Commission in case of reports like for example Periodic Reports and deliverables. Exceptions are public reports. This is valid during the project duration and afterwards.
	Quality assurance process	Data is internally in the project reviewed by assigned partners and/or the Principal Investigators.
	Length of time of data re-usability	Not applicable
	Costs estimates for making data FAIR	Not applicable
	Data Management Responsibilities	See chapter 4 and project partners

Table 31. WP10 dataset management, Data Set 10.3

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20. Conclusion

This deliverable report provides an initial outline of the Data Management Plan (DMP) for the RESCUE project, detailing the generation, handling, preservation, and re-use of research data. Additionally, methods demonstrating how to ensure data are Findable, Accessible, Interoperable, and Reusable (FAIR) are presented. The consortium is committed to adhere to the provisions outlined in this report.

It's important to highlight that this document is dynamic and subject to modifications and updates throughout the duration of the project.

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21. Appendix 1: Blank template for dataset management

DATA SET n. X– <name> – WP X – Owner(s): XXX		
1 DATA SUMMARY	Purpose of the Data	State the purpose of the data collection/generation, indicating the relation with the objectives of the project.
	Type and Format of data	… Describe the type of data used or generated within the project, specifying the form and format of the data: ▪ Text: field or laboratory notes, survey responses – in plain text, (txt), HTML, XLM, PDF/A … ▪ Numeric: tables, counts, measurements – in .XLSX, .CSV … ▪ Audiovisual: images, sound recordings, video – in .JPEG, .JPG, .PNG, .TIFF, AIFF, WAVE, .MP3, .MP4… ▪ For simulated data please state the model, model type and computer code… - and specify data type and format) ▪ Discipline-specific information e.g.: CIF in chemistry … (specify standard and format) ▪ Instrument specific: equipment output (specify equipment and format)
	Reused-Data	… Indicate if you re-use existing data (generated outside the project). If so, explain how.

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DATA SET n. X– <name> – WP X – Owner(s): XXX		
	Data origin	… Define and describe the origin/source of your data. Data can be gathered from different sources, such as: ▪ Observational – data captured in real time- often not reproducible i.e. sensor readings, images, telemetries, sample data… ▪ Experimental – data from lab equipment, often reproducible, but with high costs - i.e. chromatograms, magnetic fields readings… ▪ Simulation – data generated by computational models where model and metadata are more important than output data - i.e. climate models, economic models, materials models, … ▪ Derived/Compiled – data coming from analyses or compilation. Reproducible but with high costs - i.e. the results of text and data mining, compiled databases ▪ Reference or Canonical – collection or conglomeration of smaller (peer-reviewed) datasets published and curated - i.e. chemical structures, gene sequence databanks, spatial data portals

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DATA SET n. X– <name> – WP X – Owner(s): XXX		
	Data size	… Indicate if the dataset is: ▪ Fixed: never change after being collected or generated ▪ Growing: new data may be added, but the old data is never changed or deleted ▪ Revisable: new data may be added, and old data may be changed or deleted Then, indicate the quantity / expected size of data generated (by experiment and overall) – for example: *50MB for each experiment, overall adding up to 5GB* In case not just digital archiving is required, indicated quantities of other form of storage – for example: *2 drawers of a standard filing cabinet*
	Data Security and Storage	… Indicate how and where the data are stored and backed-up (i.e. Office computer, Hard Drive, Tape back-up system, Institute network drive, Institute Central Data storage, private Cloud storage …), briefly describing the data security policy applied.
	Data value (Long Term)	… Describe to whom the data could useful. Estimate potential value of long-term re-use of the data.
2. FAIR DATA **2.1 FAIR DATA - Making data findable**	Discoverability of data (metadata provision)	… Explain how data are documented and if metadata are provided, listing the information made available/discoverable. In case of materials model simulations attach a dataset specific MODA.
	Identifiability of data (refer to standard id mechanisms)	… Indicate how data are made identifiable, if a standard permanent identifier assignation scheme is used (i.e. ARK, DOI, PURL, URN, MODA …)

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DATA SET n. X– <name> – WP X – Owner(s): XXX		
	Naming conventions used	… Describe the system used to name and structure electronic files and folders. Refer also to any file renaming procedure or tools used.
	Search keywords approach	… Indicate the approach to keywords generation, indexing and tagging. (For materials modelling the MODA provide this answer)
	Clear versioning approach	… Describe the versioning and traceability approach used (especially if the dataset is growing or revisable).
	Standards or procedures for metadata creation applied	… Indicate and describe the procedures and templates applied for the creation of metadata. Refer to any institute policy or recommendations by specific initiatives that are applied. In case the procedure to create metadata is not (only) manual, but automatic, refer also to any tools used for metadata creation. Some references: MODA, EMMO (European Materials Modelling Ontology), Dublin Core Metadata Initiative, DataCite Metadata Schema, Open Archives Initiative Object Reuse and Exchange, ISAtools … If there are no standards in your discipline, describe what type of metadata will be created and how.
2.2 FAIR DATA – Making data openly accessible	Data openly available or kept close	… Indicate ownership of the data, if it is openly available or can be made openly available. Indicate if data access is restricted, to what users, and explain the reasons.
	How data will be made available	… Indicate how you intend to make data available – i.e. through deposit in an open repository or through a platform for a specific users group or upon personal request.

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DATA SET n. X– <name> – WP X – Owner(s): XXX		
	Methods or SW tools for data access	… Indicate methods and SW tools needed to access the data. Clarify if the relevant software (e.g. in open source code) is included in the data set.
	SW documentation and other information needed	… Indicate also any specific SW documentation that is needed to access the data. Indicate also any additional information that is needed to understand the data (i.e. abbreviations, supplementary notes).
	Repository for deposit of data, metadata, documentation and code	… Indicate the (open or private) repositories in which the data, metadata, documentation and code are stored and/or those in which they will be stored in the future. They might be disciplinary or institutional, open or restricted – e. g. Zenodo, 4TU.Centre for Research Data, Nanomaterial Registry, Hazardous Substance Databanks… Preference should be given to certified repositories, which support open access, where possible.
	Access restrictions	… Indicate if there are limitations and restrictions to access the data, and if they are linked to a specific timeframe. Explain how access will be provided after these restrictions are lifted.
	Data interoperability assessment	Assess the level of interoperability of the dataset. Indicate data and metadata vocabularies, standards and methodologies followed to facilitate interoperability. Indicate if open standards are used, and (if you know) the range of utilization of proprietary SW and methodologies used to generate and manage the data.
2.3 FAIR DATA – Making data interoperable	Standard vocabulary or mapping to commonly used ontologies	… Refer to commonly used ontologies to map the dataset, considering also the use of existing common platforms and tools –e. g: EMMO, BFO, MatONTO, Materials Ontology …
	Data licensing for wide reuse	… If applicable, define data licensing approach for the dataset wide reuse. Indicate the chosen licenses tools (e. g. Creative Commons, Open Data Commons, Apache License 2.0, BSD …).

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DATA SET n. X– <name> – WP X – Owner(s): XXX		
2.4 FAIR DATA – Increase data re-use (through clarifying licenses)	Timing of data availability for re-use (incl. indications on embargo)	… If applicable, define the timeframe for making data available for re-use. Indicate any embargo period if required.
	Data usability by Third Parties (after the end of the project)	… Indicate any limitation to the use of the data by Third Parties, after the end of the project.
	Restrictions to data re-use	… Indicate and explain any restriction to the re-use of data (i.e. confidentiality agreements, other issues).
	Quality assurance process	… Explain how quality of the data is assured, how the consistency and quality of data collection is controlled ad documented (i.e. calibration, repeat samples and measurements, standardized data capture, standardized data recording, data entry validation, peer review of data, representation with controlled vocabularies…).
	Length of time of data re-usability	… Indicate the time limit for the data re-usability, if any.
	Costs estimates for making data FAIR	… Estimate the costs for making your data FAIR (*findable, accessible, interoperable and reusable*) and describe how you intend or might be able to cover these costs (i.e. institute dedicated resources, dedicated part of the project budget …).
	Data Management Responsibilities	….. Identify responsibilities for data management of this dataset (within your research group and institute, and within the project if applicable)

Table 32. Blank table for dataset management

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