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D6.2: Data Management Plan

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CHANGE CONTROL

Date	Version	Author (Company)	Changes to document
23/01/2020	V01	Miriam García (LORTEK)	Initial version
23/01/2020	V02	Emma Gil (LORTEK)	Approved by Project Manager
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11/02/2020	V04	M. García/E. Gil (LORTEK)	Simplified version for PU dissemination level
13/02/2020	V05	Ephraïm Toubiana (SAFRAN)	Simplified version revised/approved by Topic Manager

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1. INTRODUCTION

In AMANECO several kind of data will be generated, so Deliverable D6.2 aims at providing information and guidance for the correct management of that data. The following list provides an overview of the different type of data generated:

- Specifications for each testing sample
- Experimental data of testing samples comprising manufacturing, post-treatment and characterization
- Numerical data from FEM and CFD simulations
- Correlation between data from experimental and modelling tasks
- CAD model for the design of heat exchanger
- Experimental data of heat exchanger including manufacturing, post-treatment and characterization
- LCI data during the heat exchanger manufacturing and post-treatment
- LCA data as a correlation between LCI database and process conditions

2. DATA MANAGEMENT AND RESPONSABILITY

2.1. DMP Internal Consortium Policy

According to ORD requirements, the AMANECO Data Management Plan will be ruled by FAIR (Findable, Accessible, Interoperable and Reusable) Data Management Protocols. The ORD pilot applies primarily to the data needed to validate the results presented in scientific publications. Open-access to other data is encouraged on a voluntary basis if it is not sensitive or subject to protection.

Publishable data will be made accessible within 6 months of publishing the data in peer reviewed scientific articles or similar, unless beneficiaries have outlined justifiable reasons for maintaining data confidentiality.

Each beneficiary is responsible for their records and documentation in relation to data generated, which must be in line with the accepted standards in the respective field (if do exist). To avoid losses, beneficiaries must take measures to ensure that data is backed-up.

The IPR Committee will meet at each face-to face meeting as well as every time (via teleconference) any WP leader proposes open access of generated data.

2.2. Data Management Responsible

The Project Data Contact will be the Project Coordinator, who is the direct contact with the European Commission and the Topic Manager. She will ensure that the data Management Plan is respected with the support of the WP leaders. She will be in charge of:

- Ensuring the data is correctly uploaded into repositories through periodical checks
- Completing the DMP with the links related to the data and its regular update
- Ensuring the data availability
- Ensuring that information related to accessible data is in accordance with the produced data

Project Data Contact (PDC)	Emma Gil
PDC Affiliation	LORTEK
PDC mail	egil@lortek.es
PDC telephone number	+34 943 882 303

3. FAIR Data

3.1. Making data findable, including provisions for metadata

AMANECO takes part in the ORD Pilot, so it is expected to deposit generated and collected data in an open online research repository.

The primary repository selected in AMANECO is ZENODO, which was developed by CERN as part of the OpenAIRE (Open Access Infrastructure for Research in Europe) project. ZENODO allows researchers to deposit both publications and data, providing tools to linking them to these through persistent identifiers and data citations. It facilitates the finding, assessing, re-using and interoperating of datasets which are the basic principles that ORD projects must comply with.

The guidelines provided by ZENODO will be used by AMANECO to comply with FAIR principles.

In order to store and make findable any AMANECO openly accessible data, the chosen online repository (ZENODO or any other) needs to facilitate identification of data and refer to standard identification mechanisms (ideally persistent and unique identifiers such as Digital Object Identifiers), which should be outlined.

The dataset naming should be according to this scheme:

[Name of the project]-[Type of Data]-[Name of dataset]-[Date]

being :

- Name of the project: "AMANECO"
- Type of data "NUM", "EXP", "DES"
- Name of the dataset
- Date: YYYY/MM/DD

A file will be maintained in the Project Sharepoint by the Project Coordinator.

The partner generating the data must ensure that research outputs and data-sets are cross-referencing each other (e.g. scientific publications and the data behind them)

3.2. Making data openly accessible

In order to maximise the impact of AMANECO data, the project will facilitate sharing of results and data within and outside the consortium. Selected data and results will be shared with the scientific community and other stakeholders through publications in scientific journals and presentations at conferences, as well as through open access data repositories. There will be an open access policy applied to these following the rules outlined in the Grant Agreement.

The IPR Committee will review and approve all data that is identified as appropriate for open access. This process will be carried out on an ongoing basis to facilitate the publication of appropriate data as soon as possible. The IPR Committee is responsible for the IPR issues within AMANECO and their approval will avoid any possible conflicts between open access and IPR issues.

All data will be made available for verification and re-use, unless the WP leader can justify why data cannot be made openly accessible. The IPR Committee will assess such justifications and make the final decision, based on examination of the following elements regarding confidentiality of datasets:

- Commercial sensitivity of datasets
- Data confidentiality for security reasons
- Conflicts between open-access rules and national and European legislation (e.g. data protection regulations).
- Sharing data could jeopardise the objectives of the project
- Other legitimate reasons, to be validated by the IPR Committee

Upon deciding that a database should be kept confidential, the reasons for doing so will be included in an updated version of the DMP. The data will be accessible through:

- Publications in scientific journals
- The Project website
- ZENODO repository (or any other repository complying with statements in section 3.1)

To encourage re-use and further application of project results, all AMANECO data that underlies scientific publications will be made available via open-access online platforms, unless subject to protection, OR unless release of all or part of the data to open-access platforms could jeopardise the project's main objectives.

3.3. Making data interoperable

Partners will observe OpenAIRE guidelines for online interoperability, including as set of guidelines that includes OpenAIRE Guidelines for Literature Repositories, OpenAIRE Guidelines for Data Archives, etc.

These guidelines can be found at: https://guidelines.openaire.eu/en/latest/. Partners will also ensure that AMANECO data observes FAIR data principles under H2020 open-access policy:

http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-datamgt_en.pdf

Information relating to the interoperability of AMANECO datasets has been collected in Table 1: Data Summary

As the project progresses and data are identified and collected, further information on making data interoperable will be outlined, if necessary, in subsequent versions of the DMP. In specific, information on data and metadata vocabularies, standards or methodology to follow to facilitate interoperability and whether the project uses standard vocabulary for all data types present to allow interdisciplinary interoperability

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

AMANECO is expected to produce a novel data and knowledge through experimental approaches that will be presented to the scientific community and industry, through a carefully designed portfolio of dissemination actions. Datasets uploaded in the ZENODO repository will be freely accessible after an embargo period determined per dataset if required.

As the project progresses and data is identified and collected, further information on increasing data re-use will be outlined in subsequent versions of the DMP. In specific, information on how data will be licenced to permit the widest reuse possible, when the data will be made available for re-use, whether the data produced and/or used in the project is useable by third parties and specifications of length of time for which the data will remain reusable will be provided.

4. Allocation of resources

The Data Management will be carried out as part of WP5 and will be handled by the WP leaders, under the supervision of the Project Coordinator.

Costs related to open-access to research data in Horizon 2020 are eligible for reimbursement under the conditions defined in the H2020 Grant Agreement, in particular Article 6 and Article 6.2.D.3, but also other articles relevant for the cost category chosen. Costs cannot be claimed retrospectively. Project beneficiaries will be responsible for applying for reimbursement for costs related to making data accessible to others beyond the consortium.

5. Data security

AMANECO will ensure safety store of data by the following ways:

- Use of ZENODO (or similar repository)
- All along the project, data are shared and stored in a secured SharePoint hosted by the Project Coordinator to respect its security and confidentiality policy.
- Each beneficiary will keep a back-up of the own generated data

6. Ethical aspects

N/A

7. Other issues

N/A