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Executive Summary

The Data Management Plan (DMP) is a living document that aims at providing an analysis of the main elements of the data management policy that will be used by the OPENTUNITY consortium regarding the project research data.

This document may evolve during the development of the project, when the project progresses and when significant changes occur, in order to keep an updated version of the guidelines and recommendations for making the research data Findable, Accessible, Interoperable and Reusable (FAIR) and therefore contribute to knowledge discovery and innovation.

The current version is the first iteration in which the project presents the envisioned data management strategy and makes a first effort to plan the definition of the types of research data that will be generated or collected during the project, the standards that will be used, how the research data will be preserved and what parts of the datasets will be shared for verification or reuse.

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2 INTRODUCTION

2.1 Purpose of the document

The purpose of the Data Management Plan (DMP) is to provide an analysis of the main elements of the data management policy that will be used by the OPENTUNITY Consortium regarding the project research data.

The DMP is not a fixed document; on the contrary, it will evolve during the lifespan of the project. This DMP will be a living document in which information will be available on a finer level of granularity through updates as the implementation of the project progresses and when significant changes occur.

This first version of the DMP aims to outline how the OPENTUNITY project will try to make the research data findable, accessible, interoperable, and reusable (FAIR) and therefore contribute to knowledge discovery and innovation. Although the first version submitted by month 6 of the project did not provide very detailed information on the specific data sets to be collected, generated, and processed during the project, the objective was to lay the foundations for creating an effective data management strategy covering the complete research data life cycle.

2.2 Scope of the document

The scope of this deliverable is to cover the entire life cycle of research data. This data management plan, which will be updated on an ongoing basis, will serve as a guide by the OPENTUNITY consortium on how to manage the research data during and after the end of the project. The current version is the first iteration presenting the planned data management strategy it provides an initial definition of the types of research data that will be generated or collected during the project, the standards that will be used, how the research data will be stored and what portions of the datasets will be shared for review or reuse. The potential next versions of the DMP will get into more detail and describe the datasets to be produced by the project, the specific conditions that are attached to them and the practical data management procedures to be implemented under the OPENTUNITY project.

2.3 Structure of the document

This deliverable follows the template provided by the services of the European Commission (EC) [1] Data Management Plans adapted to follow OPENTUNITY document procedures.

The document is organized in eight sections:

- Introduction (section 2).
- Data Summary (section 3).
- Fair Data (section 4).
- Other research Output (section 5).
- Allocation of resources (section 6).
- Data security (section 7).
- Ethics (section 8).
- Conclusions (section 9).

3 DATA SUMMARY

3.1 Purpose Of Data Management and Relation to the Project

OPENTUNITY project has as its main goal to create a flexibility ecosystem reducing interoperability barriers and favoring the use of standards in order to decarbonize EU grids and put the end-user in the spotlight. Grid operators, prosumers, market actors, etc. will be supported via innovative methodologies backed by advanced, interoperable software modules.

OPENTUNITY is fully committed to following and upholding the FAIR principles for the management of data. This applies not only to the data produced by the project as output but also to the data used for the experimentation during the project.

OPENTUNITY project will adopt the Open Science approach in various aspects of the project such as: Open access to research outputs such as publications, data, software, models, algorithms, and workflows or participation in open peer-review process.

It will comply with European recommendations regarding Data Management Plans, providing clear procedure for findable, accessible, interoperable, and re-usable (FAIR) data and updating the current document along the development of the project.

The purpose of the DMP is to provide an analysis of the main elements of the data management policy that will be used by the Consortium about the project research data. The DMP reflects consortium data management policies, systems, and procedures - which will be implemented and embedded into research procedures and regularly reviewed throughout the research cycle.

The OPENTUNITY consortium will strive to make data open but cannot overrule limitations that partner institutions put on data that they contribute (as specified in their Background included in the OPENTUNITY Consortium Agreement- Attachment 1). Moreover, an ethical approach will be adopted and maintained throughout the fieldwork process. The responsible partners will assure that the EU standards regarding ethics and Data Management are fulfilled.

3.2 Data Set Types, Formats and Standards.

The type of data collected and generated by the project will range from simple numeric measurements (integers or floats) to geospatial data, including geolocated images, network representation in standardized format such as CIM/CGMS or consumption/production profiles of high granularity. Therefore, the storage, integration and management of distributed data is fundamental to the work performed in OPENTUNITY and, necessarily, must be in line with the FAIR principles. Access to the data will be provided inside and outside of the consortium through the use of standard APIs and interoperable protocols such as REST to allow for the seamless integration of distributed data during and after the project lifetime.

Throughout the duration of the project, OPENTUNITY will gather (and generate) a variety of data. Broadly, the data falls into three categories:

- Organizational data – data relevant to the implementation of the Innovation action.
- Technical and scientific data – this includes raw and processed experimental data, scientific analyses/publications as well as software code and algorithms.
- Personal data – from pilot users that will give us access to data involving their consumption and patterns of behavior to better optimize the energy performance of the buildings.

The detailed definition of the different types, formats and standards of the data to be collected, processed and/or generated during the project will be done in the framework of WP2, more specifically in task T2.4 "Open and interoperable architecture" defining technical and organizational data to develop the OPENTUNITY ecosystem.

OPENTUNITY assumes that all its research data will be available and provided as open access. However, there will be data that needs to be anonymized or obfuscated before publication, to protect industrial property rights; to protect personal data; because of confidentiality reasons with regards to security; and because the project objectives could be jeopardized. This holds specially for personal information according to the GDPR and the specific national and European laws for protection personal data.

3.3 Re-Use of Data

Throughout the duration of the project, existing research findings, publications, and other pertinent information that is accessible will be examined. The primary purpose of this analysis will be to conduct internal project assessments, and the relevant information will be included in the appropriate project deliverables with appropriate attribution to the original sources.

During the project lifetime, available results from other research activities, publications, and further relevant information available will be analysed. This information will be mainly used for internal project studies and will be provided in respective project deliverables with appropriate references to the origins of the gathered information.

Moreover, OPENTUNITY will use and exploit some of the preliminary solutions and technologies developed in various H2020 projects like: WiseGRID [2] , CoordiNET [3], FLEXCoop [4], COMPILE [5], EUniversal [6] or FEVER [7]. These projects are expected to form the basis of some of the OPENTUNITY Innovation activities, complementing and going beyond the work done in these projects, providing new and more advanced services.

3.4 Updates of the DMP

As defined on the Description of Action (DoA), the *D2.3 – Open architecture report* (to be submitted on M11) (reporting the work performed on Task 2.4) will more deeply specify the data gathered and the technical definition of the OPENTUNITY ecosystem. It will complement the DMP information and will provide the description of the open, secure, and flexible architecture including details of the types and formats of data to be handled.

In this context, in Month 6 (due month for the current deliverable) the project is not yet in the position to provide a detailed list of the data sets of the project, neither the formats, nor specific standards to be used. Next version of the DMP will include the final decisions on datasets to be used that will be updated as defined on the DoA.

4 Fair Data

According to [8], the FAIR principles describe four key concepts in research data management. Data should be:

- **Findable** – Easy to find by both humans and computer systems and based on mandatory description of the metadata that allows the discovery of interesting datasets.
- **Accessible** – Long term storage so data can be easily accessed and/or downloaded with well-defined license and access conditions, whether at the level of metadata, or at the level of the actual data content.
- **Interoperable** – Ready to be combined with other datasets by humans, as well as computer systems.
- **Reusable** – Ready to be used for future research and to be processed further using computational methods.

4.1 Making Data Findable, Including Provisions for Metadata

Identification and localisation will be used for the data to be processed during OPENTUNITY project. The data to be generated in OPENTUNITY project will be identifiable and locatable by means of unique identification mechanisms. Files will be uniquely identifiable by using standardised name conventions and clear versioning. These conventions for the documents – and data sets - are already provided in D1.1 Project Management Plan.

OPENTUNITY project research data will be inventoried and annotated with metadata following the discoverability standards promoted by the Data Catalogue (DCAT) Application Profile [9]:

“It is important to ensure that your data can be found. The term usually applied to this is the discoverability of data. Essential for discoverability is metadata. Metadata describes the dataset itself (e.g., date of creation, title, content, author, type, size). This information about the data needs to be added to the catalogues to help discover the data. Metadata needs to be both human understandable and machine readable. If it is published as Linked Data, the discoverability of the data is greatly increased. Metadata does not only serve the purposes of description and discovery, but also renders itself as essential for the scope of contextualisation (relevance, quality, restrictions (rights, costs)), as well as for matching users and software to data available on the internet.”

The Dublin Core metadata standard is a straightforward and efficient element set used to describe various networked resources. The metadata landscape, as perceived by the Dublin Core community, is currently divided into four levels of interoperability and 15 sections for data description; these interoperability levels and sections are resumed in the tables below:

Table 1: Dublin Core Metadata Element Set - 4 Interoperability Levels

Dublin Core Levels of interoperability	
Level 1: Shared term definitions	Shared vocabularies defined in natural language
Level 2: Formal semantic interoperability	Shared vocabularies based on formal semantics
Level 3: Description Set syntactic interoperability	Shared formal vocabularies in exchangeable records
Level 4: Description Set Profile interoperability	Shared formal vocabularies and constraints in records

Table 2: Dublin Core Metadata Element Set - 15 Elements Overview

Contributor	An entity responsible for making contributions to the resource
Coverage	The spatial or temporal topic of the resource, the spatial applicability of the resource, or the jurisdiction under which the resource is relevant
Creator	An entity primarily responsible for making the resource
Date	A point or period of time associated with an event in the lifecycle of the resource
Description	An account of the resource
Format	The file format, physical medium, or dimensions of the resource
Identifier	An unambiguous reference to the resource within a given context
Language	A language of the resource
Publisher	An entity responsible for making the resource available
Relation	A related resource
Rights	Information about rights held in and over the resource
Source	A related resource from which the described resource is derive
Subject	The topic of the resource
Title	A name given to the resource
Type	The nature or genre of the resource

The fifteen elements "Dublin Core" described in this standard is part of a larger set of metadata vocabularies and technical specifications maintained by the Dublin Core Metadata Initiative (DCMI). The fifteen element descriptions have been formally endorsed in the following standards:

- ISO Standard 15836:2009 of February 2009 (confirmed in 2014),
- ANSI/NISO Standard Z39.85-2012 of February 2013,
- IETF RFC 5013 of August 2007.

The DCAT Application Profile utilizes Dublin Core standards as a foundation, but it is not a vocabulary. Rather, it is a straightforward specification used for describing metadata for EU governmental data and portals.

The metadata will be made public alongside the data in a machine-readable format, utilizing standard terminology to define the metadata. The metadata will also describe the overall features of the dataset, including information about local parameters, license, origin, and quality. The European Data Portal has established best practices for using DCAT-AP, and the OPENTUNITY partners will adhere to them.

4.2 Making Data Accessible

An analysis of which OPENTUNITY research data will be made openly accessible and which data will be kept closed will be done at a later stage of the project. The starting point is the definition of all types of research data to be handled and generated during and after the end of the project. Once this action is done, the data accessibility analysis will be carried out including the specification of software tools required to access the data. The outcome shall be implemented in the potential coming versions of the DMP. At the current stage, this analysis would not make much sense since the datasets are not defined yet.

During the project lifetime, information on the following aspects will be elaborated for all datasets on case-by-case basis, before making consortium decision on handling of the particular data generated or collected:

- Nature and scale of the data in consideration,
- To whom it could be useful / targeted audience and its size / level of interest,
- Information on the existence of similar data and possible synergies,
- Possibility for integration and reuse of the provided data by external users / researchers, and
- Any further related issue.

In general terms, OPENTUNITY research data will be made available, when possible, without compromising privacy, ethical or commercial sustainability, to parties with a legitimate research interest. In the case of OPENTUNITY, certain research data – especially considering the pilot clusters – is sensitive due to security issues and therefore will be kept confidential.

4.2.1 Open research data repository

To ensure open access to research data sets, the OPENTUNITY project will utilize Zenodo [10], an established European online scientific repository that is fully integrated with OpenAIRE. Decisions on whether to upload and provide access to research data sets on Zenodo will be made on a case-by-case basis by the Project Coordinator (ETRA), the Technical Coordinator (ICCS), and the partner(s) who own the data. Data sets marked as public will be made openly available, while those containing confidential or protected information will be kept private for privacy reasons.

Zenodo provides a user-friendly online service that allows researchers, scientists, EU projects, and institutions to share, preserve, and showcase research results, including data and publications, that are not already part of institutional or subject-based repositories. The service provides hosting in CERN's professional data centres, following industry best practices. Zenodo's policies on data handling and service usage are described in detail at <https://zenodo.org/policies>.

As previously stated, OPENTUNITY intends to share datasets publicly in Zenodo, using the repository's required/provided descriptive metadata. Zenodo provides a Digital Object Identifier (DOI) for all publicly accessible uploads, making them easily and uniquely citable. It is important to note that Zenodo DOIs cannot be edited once registered. Additionally, Zenodo supports the harvesting of all content via the OAI-PMH protocol¹.

¹ Open Archive Initiative - Protocol for Metadata Harvesting (OAI-PMH)

4.2.2 OPENTUNITY internal repository

During the life cycle of OPENTUNITY, data collected or generated by the project will be stored and systematically organised in the official project repository on Alfresco managed by ETRA [11].

Alfresco is a flexible content management web application developed using Java technology. In the framework of the OPENTUNITY project, it is used mainly as a repository to securely store and share files, making data available to the whole Consortium. The repository (documents section) consists of a project internal area, not possible to be accessed by external users and only share with the relevant partners of the different organization.

4.2.3 Open Access publications

The rules and principles of the European Commission's Horizon Europe Framework Programme clearly defines those scientific results generated within projects should be made available as open access publications, i.e., freely available online to any user. Following these rules, enforced in the OPENTUNITY Grant Agreement –Annex 5, Article 17, open access will be ensured to all peer-reviewed scientific publications related to OPENTUNITY and its composite solutions.

In addition, the OPENTUNITY project may decide to provide other outputs and results as Open Access. As per the "Open access to publications and data in Horizon 2020 Fact sheet" [12]¹ there are two main routes for Open Access to scientific peer-reviewed publications.

- The first route is self-archiving, also known as "Green" Open Access, where the researcher archives the published article or the final peer-reviewed manuscript in an online repository before, after or alongside its publication. Access to the article may be delayed for an embargo period of six months after publication.
- The second route is Open Access publishing, also known as "Gold" Open Access, where the scientific publisher immediately provides the article in Open Access mode, with the associated costs being charged to the researcher's affiliated research institute or funding agency.

Within the EU-funded OPENTUNITY project, both routes of publishing (gold and green open access) are available and not mutually exclusive. Each beneficiary has the liberty to choose the most appropriate approach for their respective publications. Presently, parallel publishing is the preferred strategy for providing open access, enabling consortium members to publish their findings in scientific journals of their choice for maximum impact while ensuring optimal dissemination through open access. It is noteworthy that most academic journals support either gold, green or hybrid open access. Hence, OPENTUNITY beneficiaries can select the most appropriate publishing venue according to their preference. All publications will be assigned a DOI, making them easily discoverable and citable.

It is essential to recognize that the Open Access requirement does not obligate beneficiaries to publish their results. The decision to publish is entirely up to them. Open Access becomes an issue only if beneficiaries choose to publish their research results.

¹ For the moment, no different guidelines for Horizon Europe have been provided.

4.3 Making Data Interoperable

At a later stage of the project (during last phase of WP2), an evaluation of data interoperability will take place to determine which data and metadata vocabularies, standards, or methodologies will be utilized to promote interoperability. The assessment will determine if standardized vocabularies will be adopted for all data types within the dataset to enable cross-disciplinary interoperability. The first step in this process will be to define all types of research data that will be generated and handled during and after the project, as well as the components or actors involved in communication within the OPENTUNITY project (as it will be outlined in the architecture deliverable).

The following actions are planned for the upcoming months:

- Identification of the main interfaces between components and actors to be developed in the scope of OPENTUNITY project;
- For each interface, assess the available standards and data models;
- For each interface, assess the available new data models based on ontologies;
- Gather the applicability of the standards and data models identified to the OPENTUNITY project;
- For each interface, assess the most appropriate standards and best suitable data models;
- Include the aforementioned process in Deliverable D2.3.

The outcomes of the actions described above may be integrated in the potential coming versions of the DMP.

4.4 Increase Data Re-Use

Data handling during the project will be conducted on a case-by-case basis, as previously mentioned. Once a data set is designated as public, it will be made available on Zenodo for full reuse. This may include specifying an embargo period or providing controlled access to a whitelist of individuals, in accordance with Zenodo policies.

As suggested by the Model Grant Agreement data will be made accessible with Creative Commons Licences (CC BY or CC 0) whenever possible. Depending on their characteristics, data sets may be subject to different licenses.

The Zenodo repository ensures sustainable archiving of the final research data. Items deposited in Zenodo will be retained for the lifetime of the repository, which is currently the lifetime of the host laboratory of CERN [13]. All publicly available uploads on Zenodo will be stored safely for the future in the same cloud infrastructure as research data from CERN's Large Hadron Collider and using CERN's battle-tested repository software INVENIO, which is used by some of the world's largest repositories such as INSPIRE HEP and CERN Document Server.

The data will remain re-usable at least until Zenodo discontinues the dataset(s).

The project envisages adopting the "data pedigree" concept, which ensures that each piece of relevant information is traceable back to the original data sources. This data lineage along with metadata allows for quality audit and sensitivity analyses of the outputs.

5 Other Research Outputs

5.1 OPENTUNITY Website and Public Deliverables

The OPENTUNITY website [14] describes the mission and the general approach of the project and its development status, as well as provides a short description of the project's objective and its methodology, news, events and updates that are relevant to the project's activities.



Figure 1: Project website under construction, where public deliverables will be stored.

After submission and approval from the EC, the project's public deliverables will be downloadable from the website, while confidential deliverables will be kept in the Alfresco repository accessible only to authorised users. In certain cases, external parties may request access to confidential deliverables, and the Consortium may decide to share corresponding deliverables or specific parts with those parties. The public deliverables will be available in the commonly used PDF format, on a dedicated section of the project's website (under construction when preparing this deliverable).

During the life cycle of OPENTUNITY, data collected or generated by the project will be stored and systematically organised in the official project repository on Alfresco.

5.2 Open-Source Code

The code which is classified as open-source for OPENTUNITY will be accessible on GitHub. Any source-code components that are developed during the project that is deemed appropriate for public access will be uploaded to an open access GitHub repository [15]. This repository will also be linked to the Zenodo account of the project.

GitHub is an online repository which supports distributed source code development, management, and revision control. It is primarily used for source code data. It enables worldwide

collaboration between developers and also provides some facilities to work on documentation and to track issues.

GitHub provides paid and free service plans. Private, non-public repositories require a paid service plan while free service plans can have any number of public, open access repositories with unlimited collaborators. Many open-source projects use GitHub to share their results for free. The platform uses metadata like contributors' nicknames, keywords, time, and data file types to structure the projects and their results. The terms of service state that no intellectual property rights are claimed by the GitHub Inc. over the provided material. For textual metadata items, English is preferred.

6 Allocation of Resources

6.1 Roles and Responsibilities

As indicated in previous sections, the Data Management Plan presented in this deliverable is just the first version, and the related Consortium discussions will be continuously carried out, to identify the relevant project outputs as well as to decide on the way and the means of their open access (if applicable). To ensure it, a dedicated time slot may be reserved at each project plenary meeting and, if needed, at selected Consortium audio conferences. The EC and the project reviewers will be informed about related work done and publications provided in the project management reports.

Individual responsibilities on data management in the project consortium are:

- Project Coordinator (ETRA) – to prepare and lead related discussions at the relevant project meetings and to maintain the project document repository Alfresco.
- Technical Coordinator (ICCS) – to identify data collected by the project and technical project outcomes eventually suitable for publication; moreover, to ensure dataset integrity and compatibility for its use during the project lifetime by different partners.
- Dissemination Manager (ETRA) – to identify publications suitable for publication in the considered repositories and maintain OPENTUNITY inputs for the Open Access.
- Each individual partner – to identify own project results suitable for publication and to share the published scientific articles in advance with project coordinator and dissemination manager.

The Project Coordinator and the Dissemination Manager have a particular responsibility to ensure that data shared through the OPENTUNITY website are easily available, but also that backups are performed, and that proprietary data are secured.

Moreover, each OPENTUNITY partner has to respect the rules set out in this DMP. Datasets have to be created, managed and stored appropriately and in line with applicable legislation. Validation and registration of datasets and metadata is the responsibility of the partner that generates the data in the respective Work Package (WP). Metadata constitute an underlying definition or description of the datasets and facilitate finding and working with particular instances of data. Additional responsibilities undertaken by the OPENTUNITY project partners include:

- Backing up data assets for sharing through Open Access repositories. It is the responsibility of the partner possessing these data assets.
- Quality control of the data assets. It is the responsibility of the demo partner providing the data.
- Managing different versions in case the data assets are updated and making sure that the latest version is available in the case of publicly available data.
- Consulting the concerned partner(s) before publishing data in the open domain that can be associated with an exploitable result. It is the responsibility of all project partners involved in this activity.

7 Data Security

The Zenodo and Alfresco repositories will ensure secure and safe storage of both public and non-public data respectively.

Zenodo provides clear security guaranties. All data files are stored in CERN Data Centres, primarily Geneva, with replicas in Budapest. Data files and metadata are backed up on a nightly basis. Files are regularly checked against their checksums (using MD5 algorithm) to assure that file content remains constant. In case of closure of the repository, Zenodo ensures that efforts will be made to integrate all content into suitable alternatives.

Alfresco is hosted on a private internal server with local backup mechanism (managed by the project coordinator ETRA).

The servers hosting the research data will be accessible only by authorized system administrators. Files containing confidential data should be protected by owners using local encryption tools (i.e., password-protected archives) before being uploaded to shared repositories. Interaction through web user interfaces will use https protocol (i.e., secure). Also, a secure file transfer protocol (sftp) will be provided as the need arises.

To assure data security and privacy, the OPENTUNITY developments will support advanced data anonymization and encryption mechanisms, as well as cloud and on-premises storage on servers to which only the relevant staff have access. Example of encryption mechanisms to ensure data security and privacy that may be used by the consortium are: Pseudonymization, Aggregation, Removal of sensitive data from datasets, AES (Advanced Encryption Standard), RSA (Rivest-Shamir-Adleman) or SSL/TLS (Secure Sockets Layer/Transport Layer Security).

More specifically the servers onto which the data will be stored will have server-side encryption. This means that the server's administration personnel will be able to generate public keys for specific personnel who will have access to the data but will not be able to access the data themselves (since the private keys required for this access will be generated on the machine of the person with access to the data). This means that only the required personnel (and stakeholders that have active data contracts) will have access to the data and, even in the remote case of a possible data leak or server hack, the data stolen will be fully encrypted.

Finally, and after a retention period (to be defined), a secure deletion software will be used to destroy data, i.e., using Gutman algorithm (35-pass overwrite technique).

If deemed necessary, a full format can be used in conjunction with overwriting, to provide further assurance that data cannot be recovered, guaranteeing the destruction of the project personal data.

The following guidelines will be used in order to ensure the security of the data:

- Use anonymised and aggregated data instead of individual data.
- Encrypt data by the local researchers and not allowing the data to leave their premises unencrypted.
- Store data in at least two separate locations to avoid loss of data.
- Limit the use of USB flash drives.
- Label files in a systematically structured way in order to ensure the coherence of the final dataset.

8 Ethics

Ethical issues are covered in WP1 and pre-assessed during the Grant Agreement Preparation phase. The OPENTUNITY consortium has to comply with all European and national legislation and directives relevant to the country where the data collection is taking place. The collection, processing and transmission of personal data will be analyzed under principles of (a) The Universal Declaration of Human Rights and the Convention 108 for the Protection of Individuals with Regard to Automatic Processing of Personal Data, (b) The General Data Protection Regulation (GDPR) (Regulation (EU) 2016/679), and (c) The national laws applying its provisions. Any additional regulations at national level that do not fall under the GDPR and apply to data protection, or any other sensitive information will also be considered.

Data managed during the project will be processed only under the following preconditions which need to be met: (a) When the data subject has given her/his consent; (b) When the processing is necessary for the performance of or the entering into a contract; (c) When processing is necessary for compliance with a legal obligation; and (d) When processing is necessary in order to protect the vital interests of the data subject.

9 Conclusions

This document sets the guidelines and recommendations to be followed in order to make the project research data Findable, Accessible, Interoperable and Reusable (FAIR) and therefore contribute to knowledge discovery and innovation.

The main elements of the data management policy that is used and will be used by the OPENTUNITY project are analysed and studied in this deliverable.

As it has been stated in the document, the Data Management Plan is a living document that may be updated on a regular basis all along the project implementation, in order to cover all relevant changes or progresses that might occur during the project lifetime.

10 References and acronyms

10.1 References

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10.2 Acronyms

Table 3: Acronyms

Acronym	Description
DCAT	Data Catalogue Vocabulary
DCMI	Dublin Core Metadata Initiative
DMP	Data Management Plan
DoA	Description of Action
DOI	Digital Object Identifier
EC	European Commission
EPC	Energy Performance Contract
FAIR	Findable, Accessible, Interoperable, Reusable
GA	Grant Agreement
GDPR	General Data Protection Regulation
IP	Intellectual Property
IPR	Intellectual Property Rights
WP	Work Package