



# CarE-Service

## Deliverable

### D 9.4 - Data Policy and Management Plan First version

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## ADDITIONAL DOCUMENT INFORMATION

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## VERSIONING AND CONTRIBUTION HISTORY

Version	Organization	Comment	Date
v1.0	C-ECO	First draft version	14.09.2018
v1.1	All	First review	15.10.2018
v1.2	C-ECO	Second version	22.10.2018
v1.2	CNR, CSIC	Review of the second version	24.10.2018
v1.3	C-ECO	Third version – Final version	01.11.2018



## EXECUTIVE SUMMARY

This deliverable aims at establishing the policy framework for information management and confidentiality within the CarE-Service consortium, the members of the Consumers' and Stakeholders Committees, as well as external stakeholders. The policy framework for data management includes principles ensuring the effective management and confidentiality of data, information and records throughout the related authorities and responsibilities. The main purpose of the data/information management policy is to protect both electronic and paper-version of data/information from any unauthorized use and access with a clear role and responsibilities of those who manage the data/information, while ensuring the greatest possible access of data/information, consistent with legislation and relevant EU/consortium policies. Detailed information will be provided on the procedures that will be implemented for data collection, storage, protection, retention and destruction and confirmation that they comply with national and EU legislation.

This deliverable includes the Data Management Plan (DMP) as part of the Open Data Pilot initiative. In particular, the deliverable includes:

- The procedures and criteria that will be used to identify/recruit research participants, as well as the informed consent procedures that will be implemented for the participation of humans and for the collection, storage, and protection of personal data (in response to Ethics Requirement 1);
- detailed information on the procedures for data collection, storage, protection, retention, and destruction, and confirmation that they comply with national and EU legislation (in response to Ethics Requirement 3).

This deliverable includes open research data policy, that follows the guidelines provided by the Commission.

This is the first version of the document, but this document will be updated during the project lifetime, whenever significant changes arise, such as (but not limited to):

- new data,
- changes in consortium policies (e.g. new innovation potential, decision to file for a patent),
- changes in consortium composition and external factors (e.g. new consortium members joining or old members leaving).

Updated deliverables will be also submitted in 18<sup>th</sup> and 36<sup>th</sup> month of the project. The next updated version will be submitted on November 2019, while the last on at the end of the project, on May 2021. The first version of the report for the DMP has to be submitted after 6 months of the starting date of the project. In this short term, the definition of the datasets is very difficult, so the updated versions will focus on the definition of the new data that the partners will generate during the project period. Additionally, data policy will be updated in accordance with the latest national and European legislation every time.



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## 1. ACRONYMS & ABBREVIATIONS

AVIC	Avicenner Development
CCTV	Closed-Circuit Television
CECO	Circular Economy Solutions GmbH
CERN	Conseil Européen pour la Recherche Nucléaire - European Organization for Nuclear Research
CIA	CIA Automations and Robotics SRL
CNR	Consiglio Nazionale delle Ricerch
COBAT	COBAT, Consorzio Nazionale Raccoltae Riciclo
CSIC	Agencia Estatal Consejo Superior de Investigaciones Cientificas
DM	Data Management
DMP	Data Management Plan
DOI	Digital Object Identifier
DPO	Data Protection Officer
EC	European Commission
ENV	ENVIROBAT Espana SL
ERC	European Research Council
EU	European Union
EVAI	E-VAI SRL
FAIR	Findable, Accessible, Interoperable and Reusable
FCA	FIAT CHRYSLER Automobiles Italy S.p.A.
GA	Grant Agreement
GDPR	General Data Protection Regulation
ICT	Information and Communications Technology
IMA	IMA Materialforschung und Anwendungstechnik GmbH
IP	Internet Protocol
IPR	Intellectual Property Rights
JRC	JRC – Joint Research Centre European Commission
LIU	Linkopings Universitet
OpenAIRE	Open Access Infrastructure for Research in Europe
PROD	PRODIGENTIA – Tecnologias de Informacao SA
RAD	RADICI Novacips S.p.A.



## 2. INTRODUCTION

This report describes the Data Management Plan (DMP) for the CarE-Service Project. The report aims at establishing the policy framework for information management and confidentiality within the CarE-Service consortium, the members of the Consumers' and Stakeholders Committees, as well as external stakeholders. The policy framework for data management includes principles ensuring the effective management and confidentiality of data, information and records throughout the related authorities and responsibilities. The main purpose of the data/information management policy is to protect both electronic and paper-version of data/information from any unauthorized use and access with a clear role and responsibilities of those who manage the data/information, while ensuring the greatest possible access of data/information, consistent with legislation and relevant EU/consortium policies. Detailed information will be provided on the procedures that will be implemented for data collection, storage, protection, retention and destruction and confirmation that they comply with national (eg. Bundesdatenschutzgesetz (BDSG) for Germany) and EU legislation (Regulation (EU) 2016/679 (General Data Protection Regulation)).

The DMP describes the data management life cycle for the data to be collected, processed and/or generated by CarE-Service Horizon 2020 project. As part of making research data findable, accessible, interoperable and re-usable (FAIR), the DMP includes information on:

- the handling of research data during & after the end of the project
- what data will be collected, processed and/or generated
- which methodology & standards will be applied
- whether data will be shared/made open access and
- how data will be curated & preserved (including after the end of the project).



### 3. BENEFICIARIES' REPRESENTATIVES FOR THE DATA MANAGEMENT OF THE PROJECT.

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## 4. DATA POLICY - GENERAL AND PERSONAL DATA PROTECTION

During the project data will be collected from or generated by several sources. For research purposes, CarE-Service project may contain and process personal data from various sources (e.g. interviews, questionnaires, online ICT platforms and websites, etc.). Additionally, personal data of the project participants may be collected during meetings, workshops, on social media platforms etc. in the form of photos, videos, names, etc., for research, promotion or other purposes of the project. “Personal data” means information relating to an identified or identifiable natural person.

An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person, Article 4 EU General Data Protection Regulation (GDPR).

Examples: name, address, identification number, pseudonym, occupation, e-mail, location data, Internet Protocol (IP) address, cookie ID, phone number, data provided by smart meters, etc.

Individuals are not considered “identifiable” if identifying them requires excessive effort.

Completely anonymized data does not fall under the data privacy rules (from the moment it has been completely anonymized).

“Processing of personal data” means any operation (or set of operations) performed on personal data, either manually or by automatic means. This includes:

- collection (digital audio recording, digital video caption, etc.)
- recording
- organization, structuring & storage (cloud, LAN or WAN servers)
- adaptation or alteration (merging sets, amplification, etc.)
- retrieval & consultation
- use
- disclosure by transmission, dissemination or otherwise making available (share, exchange, transfer)
- alignment or combination
- restriction, erasure or destruction.

Examples: access to/consultation of a database containing personal data; managing of the database; posting/putting a photo of a person on a website; storing IP addresses or MAC addresses; video recording (CCTV); creating a mailing list or a list of participants.

Processing normally covers any action that uses data for research purposes (even if interviewees, human volunteers, patients, etc. are not actively included in the research).



Personal data may come from any type of research activity (ICT research), personal records (financial, criminal, education, etc.), lifestyle and health information, physical characteristics, gender and ethnic background, location tracking and domicile information, etc.

All research processes and all the project activities (meetings, publications, etc.) for the CarE-Service project must comply with ethical principles and all the applicable international, EU and national law (in particular the GDPR, national data protection laws and other relevant legislation).

#### **4.1 PRE-SCREENING**

For the first stage, there is a pre-screening process of personal data. The one who collects the data must be able to answer the following questions and to act properly with the following instructions.

1. Does your research involve processing of personal data? If yes, in that case the partner must provide detailed information such as:
  - Details of the technical and organizational measures to safeguard the rights of the research participants.
  - Details of the informed consent procedures.
  - Details of the security measures to prevent unauthorized access to personal data.
  - Details of “data minimization principle” (processing only relevant data and limiting the processing to the purpose of the project).
  - Details of the anonymization /pseudonymization techniques.
  - Justification in case research data will not be anonymized/ pseudonymized (if relevant).
  - Details of the data transfers (type of data transferred and country to which it is transferred – for both EU and non-EU countries).

Additionally, documents should be kept on file, such as Informed Consent Forms and Information Sheets used (if relevant) (D10.1).

In case that the research involves processing of personal data, the partner should be able to reply to the following question(s) and to act properly with the following instructions.

2. Does it involve the processing of special categories of personal data (e.g. genetic, health, sexual lifestyle, ethnicity, political opinion, religious or philosophical conviction)?

In that case the partner must provide detailed information such as:

- Justification for the processing of special categories of personal data.
- Justification in case research objects will not be anonymized/ pseudonymized (if applicable)



3. Does it involve processing of genetic, biometric or health data?

A declaration confirming compliance with the laws of the country where the data was collected should be kept on file.

4. Does it involve profiling, systematic monitoring of individuals or processing of large scale of special categories of data, intrusive methods of data processing (such as tracking, surveillance, audio and video recording, geolocation tracking etc.) or any other data processing operation that may result in high risk to the rights and freedoms of the research participants?

In that case the partner must provide detailed information such as:

- Details of the methods used for tracking, surveillance or observation of participants.
- Details of the methods used for profiling.
- Risk assessment for the data processing activities.
- Details of safeguarding the rights of the research participants.
- Details on the procedures for informing the research participants about profiling, and its possible consequences and the protection measures.

Data protection impact assessment (art. 35 GDPR) must be provided.

5. Does your research involve further processing of previously collected personal data (including use of preexisting data sets or sources, merging existing data sets)?

In that case the partner must provide detailed information such as:

- Details of the database used or of the source of the data.
- Details of the data processing operations.
- Details of safeguarding the rights of the research participants.
- Details of “data minimization principle” (processing only relevant data and limiting the processing to the purpose of the project).
- Justification in case research objects will not be anonymized/ pseudonymized (if applicable)

Additionally, documents should be kept on file, such as 1) Declaration confirming lawful basis for the data processing, 2) Permission by the owner/manager of the data sets (e.g. social media databases) (if applicable), 3) Informed Consent Forms + Information Sheets + other consent documents (opt in processes, etc.) (if applicable).

6. Does your research involve publicly available data?

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In that case the partner must confirm that the data used in the project is publicly available and can be freely used for the project.

Additionally, documents should be kept on file, such as permission by the owner/manager of the data sets (e.g. social media databases) (if applicable).

7. Is it planned to export personal data from the EU to non-EU countries? Specify the type of personal data and countries involved.

In that case the partner must provide detailed information such as the details of the types of personal data to be exported. Also, the details of safeguarding the rights of the research participants must be described.

Additionally, documents should be kept on file, such as a declaration of confirming compliance with Chapter V of the GDPR.

8. Is it planned to import personal data from non-EU countries into the EU? Specify the type of personal data and countries involved.

In that case the partner must provide detailed information such as the details of the types of personal data to be imported.

Additionally, documents should be kept on file, such as a declaration of confirming compliance with the laws of the country in which the data was collected.

## **4.2 RISK ANALYSIS FOR ALL DATA PROCESSING ACTIVITIES**

All single processing activities of personal data must be listed in overview (independent from criticality of the personal data). The list must be created, maintained and updated by the data controller.

The overview will be the basis for the risk analysis.

For all processing activities of personal data the following information is required:

- Processing activity
- Description of the processing activity
- Data Types and contained data (e.g. personal data, financial data, working data, ...)
- Legal basis for the processing activity
- Responsible of the processing activity (Person, Position, Company)
- Purpose of the processing activity
- Affected parties of the processing activity
- Criticality of the processing activity (in terms of confidentiality, availability and integrity)



- Deletion period of the processing activity

On each processing activity the risk analysis must be applied.

Following details need to be described and evaluated:

- Risk description (e.g. unauthorized access to personal data)
- Potential harm for affected party
- Description of technical and organizational measures
- Classification of risk in dependency on probability and severity of risk (e.g. low, medium, high, ...)
- Risk handling (e.g. accept risk, moderate or eliminate risk probability by implementing additional measures, ...)
- Re-classification of risk in dependency on probability and severity of risk (e.g. low, medium, high, ...) in case additional measures will be implemented

### **4.3 ANONYMIZATION AND PSEUDONYMIZATION**

Under these rules, all the collected personal data must be processed in accordance with certain principles and conditions that aim to limit the negative impact on the persons concerned and ensure fairness, transparency and accountability of the data processing, data quality and confidentiality. As described in Deliverable 10.1, CarE-Service does not intend to collect, store and/or process sensitive data (health, genetic or biometric data). CarE-Service may collect, store and monitor both “anonymous” and “non-anonymous” non-sensitive personal data.

This implies the following main obligations for all the participants:

- Data processing should be subject to appropriate safeguards.
- Data should, wherever possible, be processed in anonymized or pseudonymized form (D10.1, Chapter 2).
- Data processing is subject to free and fully informed consent of the persons concerned (unless already covered by another legal basis, e.g. legitimate or public interest).
- Data processing must NOT be performed in secret and research participants must be made aware that they take part in a research project and be informed of their rights and the potential risks that the data processing may bring.
- Data may be processed ONLY if it is really adequate, relevant and limited to what is necessary for the research ('data minimization principle').

Collection of personal data (e.g. on religion, sexual orientation, race, ethnicity, etc.) is not essential and relevant with the scope of the research and the project, therefore the collection of sensitive personal data is not permitted.

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It is recommended all participants or partners use anonymized or pseudonymized data for project purposes.

“Anonymized” means that the data has been rendered anonymous in such a way that the data subject can no longer be identified (and therefore is no longer personal data and thus outside the scope of data protection laws).

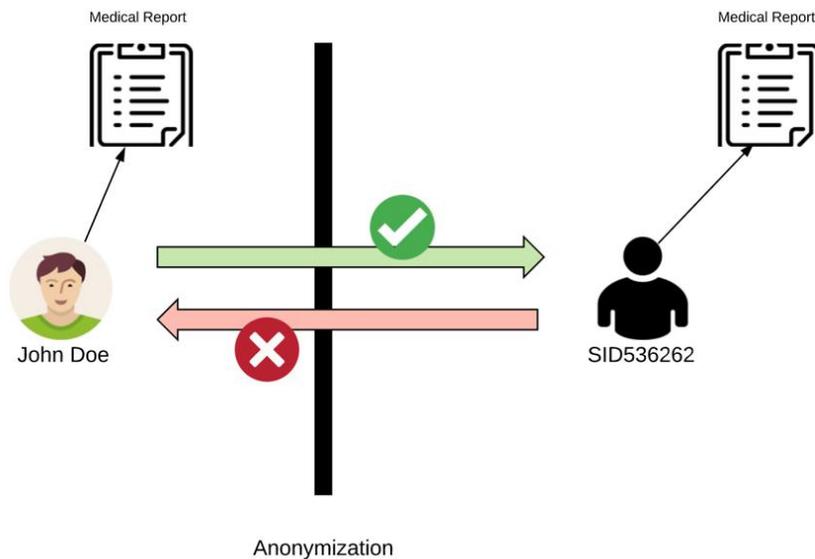


Figure 1: Anonymization (Source: [www.wso2.com](http://www.wso2.com), 2018)

Anonymization also helps in making research data and project results FAIR, without providing personal data (Figure 2) (FAIR: see Chapter 6).



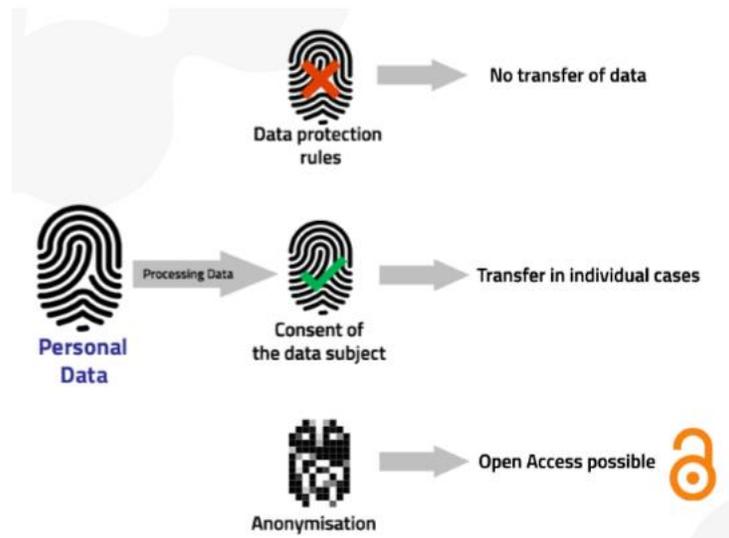


Figure 2: Anonymization of personal data (Source: OpenAIRE, 2017)

“Pseudonymized” means to divide the data from its direct identifiers so that linkage to a person is only possible with additional information that is held separately. The additional information must be kept separately and securely from processed data to ensure non-attribution.

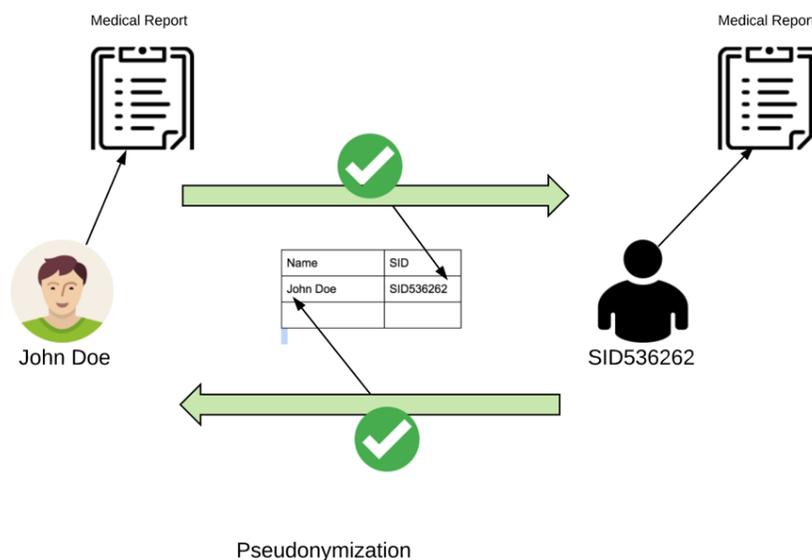


Figure 3: Pseudonymization, (Source: www.wso2.com, 2018)

It is recommended to involve the data protection officer (DPO) in all stages of the project whenever data privacy issues arise.





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Even if all privacy-related issues are addressed, research data may still raise other ethics issues, such as the potential misuse of the research methodology/ findings or ethics harms to specific groups.



## 5. DATA SUMMARY

The main purpose for the data collection/generation of the CarE-Service project is for the description of new circular economy business models in innovative hybrid and electric mobility through advanced reuse and remanufacturing technologies and services.

The CarE-Service project will produce several datasets during the lifetime of the project. All the data which will be collected will be relevant to the purposes of the projects, such as the establishment of circular economy business models, the development of the Smart Mobile Modules, the creation of customer-driven products and the development and validation of technical solutions for reused, remanufactured and recycled components and the evaluation of these business models through demonstration and life cycle assessment (LCA).

All the collected or generated data will be analyzed and evaluated from a range of methodological perspectives for project development and engineering and scientific purposes.

A range of data will be created during the project. These will be available in a variety of easily accessible formats, including Documents (Word) (DOCX), Spreadsheets (Excel) (XLSX, CSV), Presentation files (Power Point) (PPT), PostScript (PDF, XPS), images, audio and video files (JPEG, PNG, GIF, TIFF, WAV, MPEG, AIFF, OGG, AVI, MP4), Technical CAD drawings (DWG), Origin (OPJ), compressed formats (TAR.GZ, MTZ), Program database (PDB, DBS, MDF, NDF), etc. (see Table 5-1).

As no comparable data are available for secondary analysis at the moment, it is planned to make our dataset publicly available in a research data repository. Apart from the research team, the dataset will be useful for other research groups working on eco-innovative circular economy business models on large scale demonstration projects.

The following table contains all the datasets that will be generated during the project. The expected size of the datasets produced will be between 5MB and 1GB.

For every dataset which will be generated for a task, the leading partner of the task will be the Master of Data. The Master of Data will be responsible for the collection of the data from the other partners, the file and sharing actions among the consortium, the creation of the linked metadata files and also the activities for the publish of the data, e.g. on Zenodo platform.



Table 5-1: Potential Datasets

Potential datasets – Description			Format	Dissemination level	Master of Data
<b>WP1 - Requirements for new business models, services, demonstrators and KPIs</b>					
1	Task 1.1.a	Survey for deriving detailed information about mobility usage and needs, limitations of current E&HEVs offerings, acceptance criteria, etc., from various groups of customers in Europe.	DOCX, XLSX, CSV, PDF	Public	LIU
2	Task 1.1.b	Case study interviews of the main players of the future re-use chains, both in the automotive and non-automotive sectors for the creation of KPIs on the new industrial circular business models	DOCX, XLSX, PDF	Public	
3	Task 1.2.a	Technical requirements and KPIs for new re-use processes and technologies for batteries in re-use value chains	DOCX, XLSX, PDF	Confidential	CNR
4	Task 1.2.b	Technical requirements and KPIs for new re-use processes and technologies for metals re-use value chains	DOCX, XLSX, PDF	Confidential	
5	Task 1.2.c	Technical requirements and KPIs for new re-use processes and technologies for polymers re-use value chains	DOCX, XLSX, PDF	Confidential	
6	Task 1.2.d	Technical requirements and KPIs for new re-use processes and technologies for batteries in re-use value chains	DOCX, XLSX, PDF	Public	
7	Task 1.2.e	Technical requirements and KPIs for new re-use processes and technologies for metals re-use value chains	DOCX, XLSX, PDF	Public	
8	Task 1.2.f	Technical requirements and KPIs for new re-use processes and technologies for polymers re-use value chains	DOCX, XLSX, PDF	Public	
9	Task 1.3	Questionnaire and interview regarding the technical requirements of the ICT Platform and information associated to reusable E&HEVs products.	DOCX, XLSX, CSV, PDF, PPT	Confidential	PROD
10	Task 1.4	Requirements for generalization of the approach to EU industry	DOCX, XLSX, PDF	Public	FCA
<b>WP2 - New circular economy business models and service engineering</b>					
11	Task 2.1	Customer's requirements and mobility needs considered on a geographic perspective	DOCX, XLSX, PDF	Confidential	CNR
12	Task 2.2.a	Workshop notes and results	DOCX, XLSX, PDF, PPTX	Confidential	LIU
13	Task 2.2.b	Interviews of the SG for external complementary knowledge	DOCX, XLSX, CSV, PDF, PPTX	Confidential	
14	Task 2.3.a	Risk management – interviews to partners and members of the project SG	DOCX, XLSX, CSV, PDF, PPTX	Public	AVIC
15	Task 2.3.b	Desk analysis to collect quantitative information useful to describe/prioritize risks and side effects	DOCX, XLSX, PDF	Public	
16	Task 2.4.a	Socio-economic simulation of new services and business models	DOCX, XLSX, PDF	Confidential	CNR

17	Task 2.4.b	Socio-economic simulation of new services and business models	DOCX, XLSX, PDF	Public	
<b>WP3 - Customer-driven products re- design for circular economy</b>					
18	Task 3.1	Big data from the use phase of products can be collected from different stakeholders and analyzed to understand main uses and attitudes, thus suggesting design innovations	DOCX, XLSX, PDF, DWG, JPG	Public	LIU
19	Task 3.2.a	Redesign of batteries of E&HEVs in order to allow their re-use	DOCX, XLSX, PDF, DWG, JPG	Confidential	FCA
20	Task 3.2.b	Redesign of metals of E&HEVs in order to allow their re-use	DOCX, XLSX, PDF, DWG, JPG	Confidential	
21	Task 3.2.c	Redesign of techno-polymers of E&HEVs in order to allow their re-use	DOCX, XLSX, PDF, DWG, JPG	Confidential	
22	Task 3.3.a	Creation of prototypes for batteries	DOCX, XLSX, PDF, DWG, JPG	Confidential	Fraunhofer
23	Task 3.3.b	Creation of prototypes for polymeric materials	DOCX, XLSX, PDF, DWG, JPG	Confidential	
24	Task 3.3.c	Creation of virtual mock-up models, in case of parts (i.e. structural metal components) would require high investment for prototyping.	DOCX, XLSX, PDF, DWG, JPG	Confidential	
25	Task 3.4	Testing and validation of re-designed products concepts	DOCX, XLSX, PDF, DWG, JPG	Confidential	IMA
<b>WP4 - Engineering and development of the Smart Mobile Modules</b>					
26	Task 4.1	Detailed engineering of processes and technologies performed by Smart Mobile Modules.	DOCX, XLSX, PDF, JPG	Confidential	CNR
27	Task 4.2	Development, testing and validation of the smart disassembly module.	DOCX, XLSX, PDF,STP, DWG,JPG	Confidential	CIA
28	Task 4.3	Performing tests (electrical tests, load tests on components, vibration tests, visual inspection tests, etc.)	DOCX, XLSX, PDF	Confidential	IMA
29	Task 4.4	Operational business model of the Smart Mobile Modules (SMMs)	DOCX, XLSX, PDF	Confidential	CNR
<b>WP5 - Development and validation of technical solutions for components re-use, remanufacturing and recycling</b>					
30	Task 5.1.a	Batteries cells re-use: Standard Operational Sheet (SOS)	DOCX, XLSX,	Confidential	CNR



			PDF		
31	Task 5.1.b	Batteries recycling: Suitable processes based on the combination of mechanical (e.g. shredding and mechanical separation) and chemical (e.g. hydrometallurgical) technologies will be engineered.	DOCX, XLSX, PDF	Confidential	
32	Task 5.2	Detailed engineering of processes and technologies for metal parts re-use and remanufacturing solutions	DOCX, XLSX, PDF,	Confidential	Fraunhofer
33	Task 5.3	Detailed engineering of processes and technologies for techno-polymers re-use and recycling solutions	DOCX, XLSX, PDF	Confidential	CSIC
34	Task 5.4.a	Testing and validation will be performed considering different conditions of batteries (new, aged, defected, damaged and used); and	DOCX, XLSX, PDF, DWG, JPG	Confidential	ENV
35	Task 5.4.b	Testing and validation will be performed considering different battery modules design and type;	DOCX, XLSX, PDF, DWG, JPG	Confidential	
36	Task 5.4.c	Testing and validation will be performed considering different levels of residual charge and estimated remaining life cycles;	DOCX, XLSX, PDF, DWG, JPG	Confidential	
37	Task 5.4.d	Testing and validation will be performed considering different chemistry.	DOCX, XLSX, PDF, DWG, JPG	Confidential	
38	Task 5.5	Mechanical tests, such as tensile, compression, bending, or torsion tests will be performed to determine remanufactured parts properties etc. and results.	DOCX, XLSX, PDF, DWG, JPG	Confidential	Fraunhofer
39	Task 5.6	Mechanical stress testing, aesthetical features evaluation, corrosion/chemical testing and results.	DOCX, XLSX, PDF, DWG, STEP, DAF, DOF, JPG, TXT, CSV	Confidential	RAD
<b>WP6 - Development of CarE-Service ICT Platform and logistics</b>					
40	Task 6.1.a	Design of CarE-Service logistics	DOCX, XLSX, PDF, DWG #GIS	Confidential	COBAT
41	Task 6.1.b	Simulation algorithms for design optimal reverse logistics infrastructure	DOCX, XLSX, PDF	Confidential	
42	Task 6.2	Design of the CarE-Service ICT Platform	DOCX, XLSX, PDF	Confidential	PROD
43	Task 6.3	Implementation and testing of the CarE-Service Platform - list of issues and new needs to be added to the development backlog/ report	DOCX, XLSX, PDF	Confidential	
44	Task 6.4	Operational business model of the CarE-Service ICT Platform	DOCX, XLSX, PDF	Confidential	CECO



<b>WP7 - Demonstration &amp; LCA assessment</b>					
45	Task 7.1.a	Users' comments and feedback	DOCX, XLSX, PDF	Public	EVAI
46	Task 7.1.b	Realistic data/ Real time data from 50+ customers/users from the limited pilot experience	DOCX, XLSX, PDF	Public	
47	Task 7.2.a	Demonstration of Smart Mobile Modules and services	DOCX, XLSX, PDF, DWG	Public	CIA
48	Task 7.2.b	Realistic data for the virtual demonstration of the ICT platform	DOCX, XLSX, PDF, DWG	Public	
49	Task 7.3.a	Data for the pilot demonstration from "IASOL"	DOCX, XLSX, PDF	Public	ENV
50	Task 7.3.b	Data for the pilot demonstration from "eBIKE75"	DOCX, XLSX, PDF	Public	
51	Task 7.3.c	Data for the pilot demonstration from "FERRO"	DOCX, XLSX, PDF	Public	
52	Task 7.4.a	Demonstration of metal parts re-use and remanufacturing solutions	DOCX, XLSX, PDF, DWG, JPG	Public	Fraunhofer
53	Task 7.4.b	Evaluation of the business model/ economic assessment of new services	DOCX, XLSX, PDF, DWG, JPG	Public	
54	Task 7.5	Demonstration of techno-polymers re-use and recycling solutions	DOCX, XLSX, PDF, JPEG	Public	RAD
55	Task 7.6	Ex-ante, intermediate and ex-post quantitative analysis of the demonstration scenarios based on the KPIs identified in T1.3.	DOCX, XLSX, PDF	Public	CNR
56	Task 7.7.a	Life Cycle Assessment (Confidential version)	DOCX, XLSX, PDF	Confidential	FCA
57	Task 7.7.b	Life Cycle Assessment (Public version)	DOCX, XLSX, PDF	Public	FCA
<b>WP8 - Dissemination &amp; Exploitation</b>					
58	Task 8.1	Dissemination and communication plan (First version: V1.0, Second version: V2.0, etc.)	DOCX, PDF	Confidential	CSIC
59	Task 8.2	Exploitation planning and implementation (First version: V1.0, Second version: V2.0, etc.)	DOCX, PDF	Confidential	FCA
60	Task 8.3	Addressing drawbacks and market acceptance	DOCX, PDF	Public	AVIC
61	Task 8.4	Standardization and legislation plan and actions (First version: V1.0, Second version: V2.0)	DOCX, PDF	Confidential	COBAT
62		Position paper for standardization and legislation (First version: V1.0, Second version: V2.0)	DOCX, PDF	Public	
63	Task 8.5	IPR management (First version: V1.0, Second version: V2.0)	DOCX, PDF	Confidential	CSIC
64	Task 8.6	Plan and actions to exploit structural funds (First version: V1.0, Second version: V2.0)	DOCX, PDF	Confidential	CNR
65	Task 8.7.a	On-line material will be prepared and uploaded on the CarE-Service website, to explain the developed solutions, services and business models.	PDF, PPTX	Public	CSIC



66	Task 8.7.b	Material for training webinars and workshops	PDF, PPTX	Public	
<b>WP9 - Project management</b>					
67	Task 9.1	Project Management Handbook	DOCX, PDF	Confidential	CNR
68	Task 9.2	Management Report (First version: V1.0, Second version: V2.0, etc.)	DOCX, PDF	Confidential	
69	Task 9.3	Risk Management Plan (First version: V1.0, V1.1, V1.2 Second version: V2.0, V2.1, V2.2 etc.)	DOCX, XLSX, PDF	Confidential	AVIC
70	Task 9.4	Data Policy and Data Management Plan (First version: V1.0, Second version: V2.0, etc.)	DOCX, PDF	Public	CECO
<b>WP10 - Ethics requirements</b>					
71	Task 10.1	POPD - H - Requirement No. 2	DOCX, PDF	Public	CNR



## 6. FAIR DATA

### 6.1. MAKING DATA FINDABLE, INCLUDING PROVISIONS FOR METADATA

A DOI will be assigned to datasets for effective and persistent citation when it is uploaded to the Zenodo repository. This DOI can be used in any relevant publications to direct readers to the underlying dataset.

Each dataset generated during the project will be recorded in an Excel spreadsheet with a standard format and allocated a dataset identifier. The spreadsheet will be hosted at the CarE project's SharePoint. This dataset information will be included in the metadata file at the beginning of the documentation and updated with each version.

CarE – Project naming convention for project datasets will comprise of the following:

1. The unique identifying number as they are described on Table 5-1.
2. The title of the dataset.
3. For each new version of a dataset it will be allocated with a version number which will be for example start at v1.0.
4. The acronym “CarE” indicating a dataset generated by the CarE-Service Project.
5. A unique identification number linking with the dataset work package and deliverable number followed by the task number.

e.g.: “70.Data\_Management\_Plan\_v1.0\_CarE\_WP9\_D9.4\_T9.4.pdf”

*Table 6-1: Datasets field*

Dataset Identifier	The ID allocated using the naming convention outlined in section 5.1
Title of Dataset	The title of the dataset which should be easily searchable and findable
Responsible Partner	Lead partners responsible for the creation of the dataset
Work Package	The associated work package this dataset originates from
Dataset Description	A brief description of the dataset
Dataset Benefit	What are the benefits of the dataset
Dataset Dissemination	Where will the dataset be disseminated
Type Format	This could be DOC, XLSX, PDF, JPEG, TIFF, PPT etc. (Table 5-1)
Expected Size	The approximate size of the dataset
Source	How/why was the dataset generated
Repository	Expected repository to be submitted (Zenodo)
DOI (if known)	The DOI can be entered once the dataset has been deposited in the repository
Date of Repository Submission	The date of submission to the repository can be added once it has been submitted
Keywords	The keywords associated with the dataset
Version Number	To keep track of changes to the datasets
Link to metadata file	The SharePoint link where the file is saved



Table 6-2: Example for dataset field

Dataset Identifier	70.Data_Policy_And_Management_Plan_v1.0_CarE_WP9_D9.4_T9.4.pdf
Title of Dataset	Data Policy and Management Plan
Responsible Partner	CECO
Work Package	WP9
Deliverable	D9.4
Dataset Description	The Data Policy and Management Plan Policy document
Dataset Benefit	The report aims at establishing the policy framework for information management and confidentiality within the CarE-Service consortium, the members of the Consumers' and Stakeholders Committees, as well as external stakeholders
Dataset Dissemination	
Type Format	PDF
Expected Size	1MB
Source	
Repository	Zenodo, <a href="http://www.zenodo.org">www.zenodo.org</a>
DOI	To be inserted once the dataset is uploaded to the repository
Date of Repository Submission	To be inserted once the dataset is uploaded to the repository
Keywords	Data Management Plan, Personal Data, GDPR, Data Policy
Version Number	V1.0
Link to metadata file	<a href="https://itiacnr.sharepoint.com/:f:/r/sites/CarE_Service/Documenti%20condivisi/CarE-Service%20SharePoint/WPs,Tasks%20and%20Deliverables/WP9_Project_Management/T9.4_C-ECO_Policy_of_Data_and_Information_Management/D9.4_M6_V1?csf=1&amp;e=QStgHW">https://itiacnr.sharepoint.com/:f:/r/sites/CarE_Service/Documenti%20condivisi/CarE-Service%20SharePoint/WPs,Tasks%20and%20Deliverables/WP9_Project_Management/T9.4_C-ECO_Policy_of_Data_and_Information_Management/D9.4_M6_V1?csf=1&amp;e=QStgHW</a>



## 6.2. MAKING DATA OPENLY ACCESSIBLE

Each partner must ensure open access (free of charge online access for any user) to all peer-reviewed scientific publications relating to its results. Results are owned by the partner that generates them. 'Results' means any (tangible or intangible) output of the action such as data, knowledge or information — whatever its form or nature, whether it can be protected or not — that is generated in the action, as well as any rights attached to it, including intellectual property rights. Apart from the data sets specified that will be made open (public), other data generated in CarE-Service project should be kept confidential to avoid jeopardising future exploitation.

All the partners must disseminate its results by disclosing them to the public by appropriate means, as soon as possible (other than those resulting from protecting or exploiting the results), including in scientific publications (in any medium). A partner that intends to disseminate its results must give to the other partners at least 45 days advance notice, together with sufficient information on the results it will disseminate (Article 29.1, Grant Agreement).

The data will be made available to the public in order to improve and maximize access to and re-use of research data generated by the CarE-Service project. Therefore, all the generated data should be deposited in the Zenodo depository platform (a free repository hosted by CERN and available to all), which allows researchers to deposit both publications and data, in line with Article 29.3 of the Grant Agreement.

On Zenodo, all research outputs from all fields of science are welcome. In the upload form, the uploader chooses between types of files: publications (book, book section, conference paper, journal article, patent, preprint, report, thesis, technical note, working paper, etc.), posters, presentations, datasets, images (figures, plots, drawings, diagrams, photos), software, videos/audio and interactive materials such as lessons.

All metadata is stored internally in JSON-format according to a defined JSON schema. Metadata is exported in several standard formats such as MARCXML, Dublin Core, and DataCite Metadata Schema (according to the [OpenAIRE Guidelines](#)).

Files may be deposited under closed, open, or embargoed access. Files deposited under closed access are protected against unauthorized access at all levels. Access to metadata and data files is provided over standard protocols such as HTTP and OAI-PMH.

Metadata is licensed under CC0, except for email addresses. All metadata is exported via OAI-PMH and can be harvested.

For the CarE-Service project, a Community project page on Zenodo has been created for the partners where they can link their uploads:

<https://zenodo.org/communities/careserviceproject/?page=1&size=20>



### 6.3. MAKING DATA INTEROPERABLE

The CarE-Service project aims to collect and document the data in a standardized way to ensure that, the datasets can be understood, interpreted and shared in isolation alongside accompanying metadata and documentation. Widespread file formats will be generated to ensure the easy access, exchange and reuse of the generated data from other researchers, institutions, organizations, countries, etc.

Metadata are data which describe other data. Metadata files contain information about the documents you're going to upload. A metadata file will be created manually in an Excel spreadsheet and linked within each dataset. It will include the following information:

- Title: free text
- Creator: Last name, first name
- Organization: Acronym of partner's organization
- Date: DD/MM/YYYY
- Contributor: It can provide information referring to the EU funding and to the CarE-Service project itself; mainly, the terms "European Union (EU)" and "Horizon 2020", as well as the name of the action, acronym and the grant number
- Subject: Choice of keywords and classifications
- Description: Text explaining the content of the data set and other contextual information needed for the correct interpretation of the data.
- Format: Details of the file format
- Resource Type: data set, image, audio, etc.
- Identifier: DOI
- Link to data repository: Zenodo link
- Links to other publicly accessible locations of the data: e.g. Zenodo Community link, other publication platforms, etc.
- Access rights: closed access, embargoed access, restricted access, open access.

	A	B	C
1	Title:	Enter your title	
2	Creator:	Last name, first name	
3	Organization:		
4	Date:		
5	Contributor:	It can provide information referring to the EU funding and to the CarE-Service project itself; mainly, the terms "European Union (EU)" and "Horizon 2020", as well as the name of the action, acronym and the grant number	
6	Working package:		
7	Deliverable:		
8	Subject:	Choice of keywords and classifications	
9	Description:	Text explaining the content of the data set and other contextual information needed for the correct interpretation of the data.	
10	Format:		If other, specify:
11	Resource Type:		If other, specify:
12	Identifier:	DOI (available on Zenodo)	
13	Link to data repository:	Zenodo link	
14	Links to other publicly accessible locations of the data:	e.g. Zenodo Community link, other publication platforms, etc.	
15	Access rights:		
16			

Figure 4: Metadata excel file



#### **6.4. INCREASE DATA RE-USE (THROUGH CLARIFYING LICENSES)**

The datasets will be made available for reuse through uploads to the Zenodo community page for the project.

In principle, the data will be stored in Zenodo after the conclusion of the project without additional cost. All the research data will be of the highest quality, have long-term validity and will be well documented in order to allow other researchers the ability access and understand them after 5 years.

If datasets are updated, the partner that possesses the data has the responsibility to manage the different versions and to make sure that the latest version is available in the case of publicly available data. Quality control of the data is the responsibility of the relevant responsible partner generating the data.



## 7. ALLOCATION OF RESOURCES

There are no costs for making the data from CarE-Service project findable, accessible, interoperable and reusable (FAIR). The repository platform that will be used is Zenodo, an interdisciplinary open data repository service maintained by CERN, which allows researchers to deposit both publications and data while providing tools to link them without any cost. Any other costs related to open access to research data in the CarE-Service project are eligible for reimbursement during the duration of the project under the conditions defined in the Grant Agreement, in particular Article 6.2 D.3, but also other articles relevant for the cost category chosen.

Circular Economy Solutions GmbH (CECO) is responsible to deliver the Data Management Plan for the CarE-Service Project in accordance with Task 9.4 for deliverable D9.4, and also for the updated deliverables D9.7 and D9.8 which will be submitted in predetermined periods (project months: 18 and 36).

Consiglio Nazionale delle Ricerche (CNR), the project coordinator, is appointed as data controller to demonstrate that the data subject has consented to processing of their personal data in all cases. Regarding the personal data that may be collected from the platforms of PROD and EVAI, the data processor/data protection officer in these companies will demonstrate to the project data controller the consent/assent of the data subjects as part of their online subscription process.

All the project partners should respect the policies set out the Data Management Plan. Datasets have to be created, managed and stored appropriately and in line with European Commission and local legislation. Dataset validation and registration of metadata and backing up data for sharing through repositories is the responsibility of the partner that generates the data in the Working Package.

The datasets in Zenodo will be preserved in line with the European Commission Data Deposit Policy and complies with the European Commission Open Access Policy and Research Data Pilot. The data will be preserved indefinitely on the Zenodo repository. This is currently the lifetime of the host laboratory CERN which currently has an experimental programme defined for the next 20 years at least.



## 8. DATA SECURITY

During the project, all the data will be stored on the partner's storage devices (internal servers, cloud, etc.). In the following table, there are the detailed storage information for the partners of the project.

Short name	Data storage methods
CNR	At CNR, all data related to the CarE-Service project are stored in the well-known repositories that can be accessed only with specific credentials and denies any access from unauthorized sources. In particular, all data are stored and managed through personal devices (administrated by institutional credentials), Dropbox and Microsoft SharePoint.
LIU	At LIU, all data related to the CarE-Service project are carefully and securely managed and stored on local and cloud repositories that cannot be accessed by unauthorized internal or external entities.
ENV	ENV possesses an internal server with a folder named "CarEServiceProject" with restricted access for the staff designed to the project. Internal server cannot be accessed out of the facilities.
PROD	Documentation related to the project is stored in Microsoft Sharepoint Online and access to the data is controlled and made accessible to Prodigentia employees on a need-to-know basis. Microsoft provides the highest standards in data security in the industry, including ISO 27001 certifications. Data stored in the ICT platform databases are stored i) at PROD office (test and development systems) in local servers, with restricted access, accessible only to the team allocated to the CarE-Service project ii) at qualified datacenters in Europe (test and production systems). The technology used by PROD to implement the ICT platform follows the best practices in information security, implementing data encryption for passwords, single-sign-on, account lockout, among others. Following the best practices in the industry, PROD contracts regularly qualified 3rd parties to audit the solutions developed by PROD, running black-box and white-box tests. Potential security flaws identified are mitigated ASAP according to its criticality.
CSIC	All data related to the CarE-Service project are stored in an internal server named "CarEService" with access only for authorized persons. Peer-reviewed publications will be also stored in an Open Access Repository "Digital CSIC", as well as in Zenodo.
CECO	In CECO, all the related to the CarE-Service project data are stored on data repositories which are managed by the IT service of CECO (with no access from outside) and on Microsoft Office 365 cloud hosted in Germany for sharing easily the data internally.
COBAT	At COBAT, all data related to the CarE-Service project are carefully and securely managed and stored on local repositories that cannot be accessed by unauthorized internal or external entities.
FCA	In FCA, all the data related to the CarE-Service project are managed and stored on local repositories; from 2019 there will also be the possibility to store them in



	a Google Suite Platform cloud repository that cannot be accessed by unauthorized internal or external entities.
RAD	At RAD all data related to Car-E Service European project are managed and stored on local and GeoSharing Platform residing on the internal servers. Both local and GeoSharing Platform <u>are not accessible from the external networks</u> and <u>only</u> the people actively involved in the Car-E work group can manage, store and up/down-load the data files generated.
IMA	At IMA all documents and data related to the CarE-Service project are stored on special secured data repositories which are managed by the IT service of IMA. In addition project specific disseminated information will be stored on the specified Zenodo data repository.
Fraunhofer	In Fraunhofer, the data are stored at the institute's internal server. The server is protected by modern firewall and antivirus system managed by specialist for that. The data are located in an area reserved only for the project where the access is allowed only to those who work in this project (6 persons).
AVIC	AVIC possesses an internal server with a folder named "CarE-Service" with restricted access for the staff designed to the project. Internal server that cannot be accessed by unauthorized internal or external entities
CIA	CIA possesses an internal server with a folder for the CarE-service project with restricted access for the staff designed to the project. Internal server cannot be accessed out of the facilities.
EVAI	
JRC	Data, documents and files are stored on the local server that can be only accessed internally. Possibility for sharing folders is available.

In accordance with Article 29, "Dissemination of results – Open access – Visibility of EU funding", and with the aim to improve and maximize access to and re-use of research data generated by the CarE-Service project, data will be archived and preserved in the Zenodo data sharing repository. The platform provides the option for open or restricted access to data regarding the dissemination level.



## 9. ETHICAL ASPECTS

All the CarE-Service project partners must carry out the action in compliance with ethical principles (including the highest standards of research integrity) and applicable international, EU and national law. The partners must respect the highest standards of research integrity - as set out, for instance, in the European Code of Conduct for Research Integrity (Article 34, Grant Agreement).

CarE-Service does not intend to collect, store and/or process sensitive data (health, genetic or biometric data). CarE-Service may collect, store and keep on track both “anonymously” and “non-anonymously” non-sensitive personal data. Non-anonymous personal data will be collected only in case this will be needed to achieve the targets of the project. In this case, with full freedom/awareness of the data subject will be ensured. For this purpose, a dedicated space for the consent of data subject on the non-anonymous data collection is present in the designed consent forms (Deliverable 10.1).

CarE-Service may collect personal data from members of the consortium and other participants for several reasons as questionnaires or surveys, meetings, conferences etc., In all cases the partners must follow the standard procedure of getting authorization from the members to show and distribute the results, the videos the images etc. to the public.

In CarE-Service, the data collection as well as processing will be fully based on consent/assent of the data subject. Regarding the general personal data collection within CarE-Service project, the data subjects’ consent/assent will be given in the context of a written declaration (by signing the forms). The templates of the informed consent/assent forms are devised to be fully compliant with EU General Data Protection Regulation (GDPR).

The informed consent form is written in English and also translated and available in four more languages (German, Spanish, Italian and French) (Deliverable 10.1, §3.1 and Appendix A1, B1, C1, D1).

CarE-Service partners must keep confidential any data, documents or other material (in any form) that is identified as confidential at the time it is disclosed (“confidential information”).



## 10. REFERENCES

“Defining a Winning GDPR Strategy Part 3: Identity and Access Management to the Rescue”, Sagara Gunathunga (14 February 2018): <https://wso2.com/library/article/2018/2/identity-and-access-management-to-the-rescue/>

DMP online: <https://dmponline.dcc.ac.uk/>

European Commission, “2018 reform of EU data protection rules”: [https://ec.europa.eu/commission/priorities/justice-and-fundamental-rights/data-protection/2018-reform-eu-data-protection-rules\\_en](https://ec.europa.eu/commission/priorities/justice-and-fundamental-rights/data-protection/2018-reform-eu-data-protection-rules_en)

European Commission, “Guidelines on FAIR Data Management in Horizon 2020 - The FAIR Data Principles”, Version 3.0 (26 July 2016): [http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hi-oa-data-mgt\\_en.pdf#page=10](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf#page=10)

European Commission, Directorate-General for Research & Innovation, Horizon 2020 Programme, “Guidance How to complete your ethics self-assessment”, Version 6.0, (23 July 2018): [http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/ethics/h2020\\_hi\\_ethics-self-assess\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-self-assess_en.pdf)

European Commission, Directorate-General for Research & Innovation, “Guidance - How to complete your ethics self-assessment”, Version 6.0 (23 July 2018): [http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/ethics/h2020\\_hi\\_ethics-self-assess\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-self-assess_en.pdf)

European Commission, Research and Innovation, Participant Portal H2020 Online manual, Open access and Data management, Data management: [http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-data-management/data-management\\_en.htm](http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-data-management/data-management_en.htm)

OpenAIRE (Open Access Infrastructure for Research in Europe): <https://www.openaire.eu/>

OpenAIRE Horizon 2020 Fact Sheets, “Personal data and the Open Research Data Pilot” (April, 2017): <https://www.openaire.eu/or-data-pilot-factsheet/download>

The FAIR Data Principles: <https://www.force11.org/group/fairgroup/fairprinciples>

Zenodo repository platform: <https://zenodo.org/>; <http://about.zenodo.org/policies/>

