



D9.2 – Data Management Plan

WP9 – Task 9.1

Mariana Terreros¹, Mina Lazarevic¹, Ricardo da Silva²

¹LGI

²EIT Climate KIC

Disclaimer

The content of this report reflects only the author's view. The European Commission is not responsible for any use that may be made of the information it contains.

Document information

Grant Agreement	n°101093942
Project Title	Co-developing pathways towards Climate resilient regions in Europe
Project Acronym	P2R
Project Coordinator	Dr. Fernando J. Diaz Lopez, EIT Climate KIC (CKIC)
Project Duration	01 January 2023 - 31 December 2027 (60 months)
Related Work Package	WP9
Related Task(s)	T9.1 Project Coordination
Lead Organisation	LGI
Contributing Partner(s)	All
Due Date	30 th June 2023
Submission Date	02/08/2023
Dissemination level	Confidential

History

Date	Version	Submitted by	Reviewed by	Comments
12/06/23	V.01	Mariana Terreros	Mina Lazarevic	
04/07/23	V.02	All partners	Mariana Terreros	
26/07/23	V.03	All partners	Mariana Terreros	
02/08/23	V.1	Mariana Terreros	Ricardo Silva	

Table of contents

1	Introduction.....	0
1.1	Why would I want to read this deliverable?.....	0
1.2	Intended readership / users.....	0
1.3	Objectives and scope of the document.....	0
1.4	Structure of the deliverable.....	0
1.5	Version.....	1
2	Data Summary.....	1
2.1	What is the purpose of the data collection/generation and its relation to the objectives of the project?.....	1
2.2	What types and formats of data will the project generate/collect?.....	3
2.3	Will you re-use any existing data and what will you re-use?.....	5
2.4	What is the origin/provenance of the data, either generated or re-used?.....	7
2.5	What is the expected size of the data that you intend to generate or re-use?.....	8
2.6	To whom might your data be useful ('data utility'), outside your project?.....	8
3	Data Management Policy : FAIR Data.....	9
3.1	Making data findable, including provisions for metadata.....	9
3.2	Making data openly accessible.....	11
3.2.1	Data made openly available as the default.....	11
3.2.2	How will the data be made accessible.....	12
3.2.3	Methods and/or software needed to access the data.....	13
3.2.4	Data sharing exceptions.....	13
3.2.5	Specific partner provisions.....	13
3.2.6	Sensitive data restrictions.....	14
3.2.7	Data access committee.....	14
3.2.8	How will access be provided if there are restrictions on use to data.....	15
3.3	Making data interoperable.....	15
3.4	Increase data re-use.....	15
3.5	DMP quality and review process & data inventory.....	15
3.6	Other research outputs.....	16
4	Data security.....	16
4.1	Data access.....	16
4.2	Data preservation.....	16
5	Ethical aspects.....	17

5.1	General Data Protection Regulation (GDPR)	17
5.2	Sensitive data	17
6	Allocation of resources	17
8	Annex I : Digital Curation Centre (DCC) – Information	21
8.1	Data Collection	21
8.2	Data Description	21
8.3	Data volume	21
8.4	Data sharing	21
8.5	Metadata & documentation	22
8.6	Storage and security	22
8.7	Ethics and privacy	22
8.8	Roles and Responsibilities	23
8.9	Preservation	23
9	Annex II – Data sets collected in the project	24
10	Annex III – Data sets could be made openly accessible	27
11	Annex VI – Data sets to remain confidential	28

List of tables

Table 1	Purpose of data collection and generation for the project by partners	3
Table 2	Types and formats of data generated/collected by partners	5
Table 3	List of data that will be used or re-used by partners	6
Table 4	Origin of data generated or re-used by partners	7
Table 5	Size of data generated or -reused by partners	8
Table 6	List of main an sub-groups of stakeholders	9

Summary

The P2R Data Management Plan (DMP) follows the Horizon Europe (HE) DMP template that was designed to be applied to any HE project that produces, collects or processes research data. It reflects the status of the data that is collected, processed or generated and following what methodology and standards, whether and how this data will be shared and/or made open, and how it will be curated and preserved.

This DMP deliverable describes the data management principles and strategies, tools and P2R data that will be produced as part of the project activities and that are relevant to be included in the DMP. The consortium will also aim at open access when publishing papers and articles.

The DMP is a living document to be updated as the implementation of the project progresses and when significant changes occur.

Keywords

Data management, findable, accessible, interoperable and reusable.

Abbreviations and acronyms

Acronym	Description
WP	Work Package
CA	Consortium Agreement
CC	Common Creative
D	Deliverable
DMP	Data Management Plan
DPO	Data Protection Officer
DoA	Description of Action
DOI	Digital Object Identifier
EC	European Commission
FAIR	Findable, Accessible, Interoperable and Reusable
GA	Grant Agreement
GDPR	General Data Protection Regulation
HE	Horizon Europe
IPR	Intellectual Property Rights
ISSN	International Standard Serial Number
M	Month (of the project)
NDA	Non- Disclosure Agreement

PII	Publisher Item Identifier
PMO	Project Management Office
PU	Public
ORDP	Open Research Data Pilot
SENS	Sensitive
URL	Uniform Resource Locator
V	Version
WP	Work Package
WPL	Work Package Leader
Gold Open Access	Open access publishing (gold open access) means that an article is immediately provided in open access mode on the publisher or journal's website. Some publishers charge Article Processing Chargers (APCs) to make articles open
Green Open Access	Self-archiving (green open access) means that a published article or the final peer-reviewed manuscript is archived (deposited) in an online repository before, alongside or after its publication. In some cases, the author can choose to delay access to the article (embargo period). HE rules state that embargo periods cannot exceed six months, except for publications in social science and humanities where the maximum embargo period is twelve months
Personal Data	Personal data is any information that relates to an identified or identifiable living individual. Different pieces of information, which collected together can lead to the identification of a particular person, also constitute personal data. Personal data that has been de-identified, encrypted or pseudonymised but can be used to re-identify a person remains personal data and falls within the scope of the law. Personal data that has been rendered anonymous in such a way that the individual is not or no longer identifiable is no longer considered personal data. For data to be truly anonymised, the anonymisation must be irreversible
Zenodo	Zenodo is a catch-all research data repository that enables researchers, scientists, EU projects and institutions to

	share research results, make research results citable, and search and reuse open research results from other projects. Zenodo is harvested by the OpenAIRE portal and hosted by the CERN cloud infrastructure
--	---

1 Introduction

1.1 Why would I want to read this deliverable?

This deliverable provides an easy overview of data the P2R project is expected to generate, the types and formats of this data, and how this data is processed and stored to make them findable, accessible, interoperable and reusable, according to the principles of FAIR data management. The purpose of the DMP is to contribute to good data handling during the project's lifetime, and to describe how such data will be curated and preserved.

1.2 Intended readership / users

Internally in the project:

- All project participants who are responsible for, or in any way involved with, data collection and data handling can use this document, for instructions on how to handle, store and process data.
- All project participants can use this document to get an overview of all data collected in the project and how this is processed and stored.

External audience:

- All relevant stakeholders who are interested in P2R related activities and research topics can use this document to get an overview of the data collected in the project, how to access this data, and, if applicable, how to re-use this data in their own activities.
- All persons who voluntarily participate in the pilots and contribute data to the project can use this document to learn how the project processes and stores their data.

1.3 Objectives and scope of the document

The DMP describes the data management life cycle for the data to be collected, processed and/or generated by P2R project, as a HE project. The DMP aims at defining the management strategy of data generated during the project with the purpose to making research data findable, accessible, interoperable and re-usable (FAIR). The DMP addresses the following points:

- The handling of research data during and after the end of the project,
- What data will be collected, processed and/or generated,
- Which methodology and standards will be applied,
- Whether data will be shared/made open access, and
- How data will be curated and preserved (including after the end of the project).

1.4 Structure of the deliverable

The document is structured following the guideline of HE programme on FAIR Data Management including the following information:

- DMP guiding principles and strategy
- Description of P2R type of data
 - Description of FAIR DATA characteristics including DMP Review Process & data inventory
 - Data Security
 - Ethical considerations

- Allocation of resources
- Conclusions

1.5 Version

According to the EU’s guidelines regarding the DMP (European Commission, 2016), the document may be updated - if appropriate - during the project lifetime (in the form of deliverables). The minimum requirement is that the DMP be updated for each periodic evaluation of the project. If there are none, such an update must be made in time for the final review at the latest.

The DMP is intended to be a living document in which information can be made available on a finer level of granularity through updates as the implementation of the project progresses.

DMPs should, therefore, have a clear version number and include a timetable for updates.

2 Data Summary

All the technical (non-personal data) collected in the different stages of the project (EoI, call for applications etc), for the purpose of P2R objectives may be:

- 1) Shared with implementing partners in the consortium as well as the Mission Secretariat and other Mission projects in order to ensure the good implementation of the Mission.
- 2) Can be used for the purpose of developing effective engagement strategies, designing support services, etc.

The same principle may be applied to the results generated in the project (example: P2R may develop case studies from the collected data from regions and use them to interact with other regions). Nevertheless, privacy concerns will always be respected and regions may chose to not be part of such case studies and keep their information.

2.1 What is the purpose of the data collection/generation and its relation to the objectives of the project?

Partner	Purpose data that will be collected/generated for the project
CKIC	EIT Climate-KIC, as WP3 lead, will collect application data from all potential subgrantees to conduct a selection process as well as provide tailored support to the selected subgrantees. Data will consist of administrative data (contact person, organizational information, geographic scope of the project), application data (text answering the application questions) as well as supporting documents (eg existing strategy documents).
Deltares	Deltares, as part of WP6, will through interviews with consortium members and other tool developers collect information about existing climate resilience tools. Data related to this will consist of the Interview (video or audio) recordings (which will be safely stored in respect of privacy regulations) and an excel file with the main information collected through the interviews. Additional data collection may take place through the engagement of regions but in how far and how this will happen is still being discussed at the moment of writing this input.
ICLEI	ICLEI, as part of WP4, will engage with regions in order to: 1) collect their feedback on the Regional Resilience Journey, 2) stock-take existing

	<p>innovations and practices related to the 4 key enabling conditions. This second objective will be supported by data collection through literature review. As part of WP5, ICLEI will interact with regions to establish needs and demands for financial support. As part of WP7, ICLEI will engage with regions to: 1) understand needs for the mentoring programme, 2) match-make local and regional authorities involved in the programme.</p>
IIASA	<p>IIASA, as a part of WP6, will, as part of deliverables 6.1, 6.5, and 6.7, potentially engage with regions on: 1) asking inputs on the decision-making framework developed in the D6.1 (e.g., through semi-structured interviews and group discussions) as a part of co-production process, 2) engage with regions in the development of catalogue of innovative transformative options and strategies for KCS (e.g., structured surveys, semi-structured interviews, workshops). However, the exact focus of these is being discussed at the moment of writing this input.</p>
RCCC	N/A
ERRIN	<p>ERRIN will through the Expression of Interest questionnaire (WP2) collect information on: 1) regions and communities' adaptation barriers and capacities to inform the development of support services and capacity-building activities, 2) regions and communities' local governance to offer stakeholder engagement support through matchmaking activities, 3) local and regional adaptation-related strategies and plans to understand how advanced regions and communities are in their strategic adaptation work, and 4) personal information (name, email address, job title) to enable the project to contact regions and communities.</p>
LGI	<p>LGI as part of WP8 will manage a GDPR compliant stakeholder list for engagement and coordination/ Stakeholder engagement is essential for the successful delivery of P2R, with consultation activities planned across all Ps. To enable a two-way dialogue between project and its followers, stakeholder will be invited to actively participate in the review of the project's developments to complement and increase validity and therefore the impacts of P2R results.</p>
IIED Europe	<p>IIED Europe as part of WP1 will be collecting wide-ranging information from the regions through the self-assessment tool. This will include information on the institutional capacities of the region to undertake climate change related plans and action. Specific information will be sought on the knowledge capacities of the existing staff, budget and financial support available to the regions, as well information on strategic planning initiatives around climate change adaptation. It is expected that this information will be useful to select regions in need of support from P2R.</p>
TECNALIA	<p>It is not envisioned that TECNALIA will not collect, treat or generate data within its main role as toolbox conceptualisation and co-development with P2R partners. However, the toolbox may include consortium processed data (data that is analysed and processed in various project activities. This data may be based upon case studies but is of more general level and contains no personal data whatsoever).</p>
Regions4	<p>Regions4 will collect project data from different work packages with the purpose of sharing it within its regional network, fostering connections between regions and P2R project activities as well as learning tools.</p> <p>On the other hand, Regions4 will provide access to the data gathered through its RegionsAdapt initiative. This includes resources such as RegionsAdapt</p>

	Progress Reports, a comprehensive list of regional contact details, regional experiences, publications, reports, and various other knowledge resources.
PPMI	PPMI, as part of WP1 and WP3, will collect information through the self-assessment tool on regions and communities' capacities related to climate change. The information collected will focus on different institutional capacities (i.e., financial information, strategic planning related to climate change, institutional coordination, the extent climate information is used in decision-making and planning) and will also collect personal information (e.g., name, email address, job title) to enable the project to contact regions and communities during the selection process (i.e., part of the call). PPMI will also conduct desk review and data collection related to pre-existing climate risks and capacities to inform both the selection process and to develop regional analytical profiles on selected regions, focusing on the level of vulnerability, capacities and risks of the selected regions.
AUEB	AUEB will collect data to understand the systemic factors influencing adaptation financing, regional adaptation finance strategies, and the development of capacity-building modules for adaptation finance. This will enable AUEB to support selected European regions in developing pathways towards climate resilience and to bridge the adaptation finance gap
PWA	PWA as part of WP5, may through interviews and informal meetings with consortium members and others involvement in adaptation investment, collect information about existing and possible processes for adaptation finance. Data related to this will consist of the Interview (video or audio) recordings (which will be safely stored in respect of privacy regulations) and an excel file with the main information collected through the interviews. Additional data collection may take place through the engagement of regions and support in preparation of Adaptation Investment Plans but the exact details of how far and how this will happen is still being discussed at the moment of writing this input.
GIB	GIB, in principle, may collect, analyse and store data collected through on- or offline data collection methods such as interviews and surveys throughout the project period according to the project data management principles, with the purpose of eliciting opinions, views, strategies, and plans related to climate adaptation & finance.

Table 1 Purpose of data collection and generation for the project by partners

For more information and guidelines see Annex I, 8.1 Data Collection and 8.2 Data Description.

2.2 What types and formats of data will the project generate/collect?

Partner	Type	Format
CKIC	Open Call application data	Spreadsheet format (.csv) for generated applicant data and PDF for reviewing existing applicants' strategy documents and eligibility condition fulfilment
Deltares	Feedback on stocktake of tools and methods for adaptation pathways formulation	Semi-structured interviews, detailed notes or transcripts, conditional to participants consent

ICLEI	Feedback on RRJ Best practices and lessons learnt Needs	Workshop semi-structured interviews Surveys and questionnaires
IIASA	Feedback on the decision-making framework and catalogue of transformation option through possible surveys, semi-structured interviews, or workshops	For survey: online (e.g., Google Forms) - downloaded in Excel. For interviews and group discussions: detailed notes or transcripts (conditional to participants consent)
RCCC	N/A	N/A
ERRIN	Survey data	Online via the EU Survey Platform, which will be downloaded in PDF and Excel format for project partners to work with.
LGI	Stakeholder list Event registration and attendance lists	Excel files
IIED Europe	Self-assessment questionnaire Responses received to the self-assessment questionnaire (responses and respondent metadata). Methodological notes on the sub-dimensions of the resilience maturity curve/ Guidelines for analysts and researchers.	Online self-assessment tool (potentially using Alchemer), to be determined if an offline self-assessment document will be provided. Numerical data to be collected in formats like spreadsheets (e.g. Excel) or R files. Textual data to be collected in plain text or structured databases.
TECNALIA	Lessons learned from the regions in their development of the regional resilience journey	To be determined. Most probably as factsheets that will be available in the web-based toolbox.
Regions4	Textual Data: This includes documents, reports, emails, social media posts, survey responses, and other text-based information. Numerical Data: It can include measurements, financial data, statistical data, or any other numerical values. Visual data: It can include images and videos.	Textual data can be collected in formats such as plain text, or structured databases. Numerical data can be collected in formats like spreadsheets (e.g., Excel), databases, or CSV files). Visual data can be in formats like JPEG, PNG, GIF for images, and MP4 or MOV for videos.
PPMI	Responses received to the self-assessment tool (responses and respondent metadata). Guidelines for the use of the self-assessment tool. Regional analytical profiles on	Online self-assessment tool (potentially using Alchemer), to be determined if an offline self-assessment document will be provided. Numerical data to be collected in formats like spreadsheets (e.g. Excel) or

	<p>selected regions (information on vulnerabilities, capacities and risks).</p> <p>Numerical data: climate risk measurements, other statistical data, or other numerical values.</p> <p>Textual data: documents, reports and other relevant text-based information.</p> <p>Generating visual data (e.g., aggregation of self-assessment tool data in a visual form).</p>	<p>R files. Textual data to be collected in plain text or structured databases. Guidelines and regional analytical profiles in a relevant text document type (e.g. PDF). Visual data can be in formats like JPEG, PNG,</p>
AUEB	<p>Various types of data, including financial data, policy data, governance data, and socio-institutional data.</p>	<p>These data will be collected in formats such as reports, surveys, and databases</p>
PWA	<p>Survey or interview responses</p>	<p>Spreadsheet format (MS EXCEL)</p>
GIB	<p>Survey Responses (responses and respondent metadata), Interview Transcripts (audio files, written transcripts), Transcripts from Roundtables & Workshops (audio files, written transcripts)</p>	<p>Qualtrics (online), Google Forms (online), MS Excel (offline), Audio files (mp3), Python & R Files (e.g., pkl, shp, etc.)</p>

Table 2 Types and formats of data generated/collected by partners

For more information and guidelines see Annex I, 8.1 Data Collection and 8.2 Data Description

2.3 Will you re-use any existing data and what will you re-use?

Partner	Existing data that will be used or re-used
CKIC	<p>For the purposes of evaluating applicants to the Open Calls, EIT Climate-KIC will re-use publicly available data to determine the applicants’ regions demographics, climate risks, bioregion, among other data relevant to the selection criteria. Existing public strategy documents, such as climate adaptation or resilience plans, stakeholder engagement, among others – will be used to assess the commitment of the applicant towards the Mission objectives.</p>
Deltares	<p>Input from the regional self-assessment on climate risk profile can provide a useful starting point for the guidance on formulation of transformational pathways</p>
ICLEI	<p>ICLEI will build on the dataset and knowledge from partners (specifically in WP2 and WP5). Our work will also be based on literature review of existing and published case studies and practices in public platforms (such as Climate-ADAPT) and publications.</p>
IIASA	<p>In conversation with project partners, we might be interested in parts of the Eol questionnaire as it can provide a useful starting point for the catalogue of transformative adaptation options. Furthermore, we will use publicly available data (e.g., existing catalogues of adaptation options).</p>
RCCC	<p>N/A</p>
ERRIN	<p>Data deriving from the survey developed and managed by the Mission Secretariat of the Mission on Adaptation to Climate Change for the regions</p>

	and communities wishing to sign the Mission Charter will be used for the WP2 activities as well as other WPs' activities.
LGI	N/A
IIED Europe	The survey questionnaire underpinning the RMC is based on a rapid review of literature on climate adaptation. It builds on some of the existing assessment frameworks on climate adaptation (e.g.TAMD).
TECNALIA	TECNALIA will use publicly shared data. (Publicly shared data is data that becomes part of the P2R or other Mission's project results (e.g. tools, reports), and that is shared with members of the public during dissemination activities or as outputs of the projects and made them available in their websites)
Regions4	Regions4 will re-use existing public data and data generated by the project ensuring agreement and cooperation throughout the process with the consortium. This data will be employed to inform the RegionsAdapt network, aiming to enhance support for regional goals in terms of resilience and adaptation.
PPMI	PPMI may re-use existing data related to assessing the climate risks, vulnerabilities and capacities of regions. This may include data from relevant reports, public databases, and other relevant sources. PPMI will also build on the data collected through the self-assessment tool to develop regional analytical profiles of selected regions. PPMI will build on the knowledge from partners, especially in WP1.
AUEB	AUEB may re-use existing data related to adaptation finance, barriers and solutions, and regional financial needs. This might include data from previous studies, governmental and non-governmental reports, public databases, and other relevant sources
PWA	For the purpose of developing the Adaptation Finance process in Task 5.2, PWA will review and extract data from various sources to provide new insights and analysis. For example, the development on the role of innovation accelerators in supporting the take up of adaptation finance. PWA may also reuse data provided by regions in the process of providing support to them through the development of Adaptation Investment Plans or the Adaptation Finance Innovation Lab.
GIB	GIB may, in principle, use publicly shared data (Publicly shared data is data that becomes part of the P2R or other Mission's project results (e.g. tools, reports), and that is shared with members of the public during dissemination activities or as outputs of the projects and made them available in their websites). GIB may, in principle, use self-collected or external data under limited disclosure agreements.

Table 3 List of data that will be used or re-used by partners

For more information see Annex I, 8.1 Data Collection

2.4 What is the origin/provenance of the data, either generated or re-used?

Partner	Origin of data that will be generated or re-used
CKIC	Data to be collected by WP3 will come from applicants to the Open Calls (public authorities and bodies governed by public law).
Deltares	Via experts on climate adaptation, application of adaptation pathways and regions, in addition Deltares may, in principle, use publicly shared data.
ICLEI	Re-used data will come from the EoI in WP2 and from the literature review in WP5 but also from existing literature and platforms (such as Climate-ADAPT).
IIASA	Experts on climate adaptation, regions.
RCCC	
ERRIN	The data that will be collected by WP2 through the Expression of Interest questionnaire will come from local and regional authorities in EU Member States and Horizon Europe Associated Countries. The re-used data will come from the survey run by the European Commission.
LGI	Data will be collected from partner's own data (e.g., through re-used data collected by WP2 and the EOI) and from desktop research.
IIED Europe	Generated or re-used data will come from the regional authorities via the self-assessment tool designed to assess their risks and capacities vis-vis climate change adaptation.
TECNALIA	TECNALIA will use publicly shared data. (Publicly shared data is data that becomes part of the P2R or other Mission's project results (e.g. tools, reports), and that is shared with members of the public during dissemination activities or as outputs of the projects and made them available in their websites)
Regions4	Regions4 would use its own generated data, such as the RegionsAdapt Progress Reports as well as other own generated knowledge and capacity-building resources, and re-use public data and project data in agreement with the project consortium.
PPMI	Generated data will primarily come from the self-assessment tool. PPMI may also use publicly shared data (Publicly shared data is data that becomes part of the P2R or other Missions' project results). Re-used data will come from relevant government or statistical authorities (e.g. Eurostat) or relevant research institutions or international organisations.
AUEB	Generated data will come from the project activities, such as surveys, meetings, and project tasks. Re-used data will come from reliable sources like government databases, statistical authorities (e.g. Eurostat), research institutions, international organizations, and financial institutions.
PWA	Generated data would come from regions, as well as financing institutions and/or academic research institutions.
GIB	GIB may, in principle, use publicly shared data (Publicly shared data is data that becomes part of the P2R or other Mission's project results (e.g. tools, reports), and that is shared with members of the public during dissemination activities or as outputs of the projects and made them available in their websites). GIB may, in principle, use self-collected or external data under limited disclosure agreements.

Table 4 Origin of data generated or re-used by partners

For more information and guidelines see Annex I, chapter 8.4 Data sharing.

2.5 What is the expected size of the data that you intend to generate or re-use?

Partner	Size of data generated or re-used
CKIC	Not possible to determine at this point.
Deltares	Not possible to determine at this point.
ICLEI	Not possible to determine at this point.
IIASA	Not possible to determine at this point.
RCCC	Not possible to determine at this point.
ERRIN	The data that will be generated will be around 10-20 MB when downloaded in PDF format and around 600-1000 KB when downloaded in an Excel file. The size of the re-used data is still unknown as it has not yet been transferred from the European Commission to the Pathways2Resilience project.
LGI	Small data size, it will not exceed the 1GB.
IIED Europe	Not possible to determine at this point.
TECNALIA	Not possible to determine at this point.
Regions4	Not possible to determine at this point.
PPMI	Not possible to determine at this point.
AUEB	The expected size of the data is not known yet, but from past experience we do not expect this to exceed 1 GB. The exact size will depend on the depth of the research and the level of participation from the regions involved.
PWA	Not possible to determine at this point.
GIB	GIB may, in principle, generate data in the order of 0.1-1000 GB, stored on their own or partner's premises.

Table 5 Size of data generated or -reused by partners

For more information and guidelines see Annex I, 8.3 Data volume.

2.6 To whom might your data be useful ('data utility'), outside your project?

Please see groups of possible stakeholders below:

Sector	Stakeholders
Projects/Initiatives	Mission Implementation Platform P2R sister projects

EU/MS governments, policy makers and institutions	Local and regional policy makers Climate change focal points/experts at the regional and local level Public administrators and local practitioners Local and regional agencies for climate, energy and environmental agencies Disaster management authorities Civil protection
Research peers: academic sector	Researchers and climate experts
Investors	Bankers Insurance companies EU & International fund managers
General public	Civil society Non-governmental organisation and associations on environmental issues

Table 6 List of main and sub-groups of stakeholders

For more information and guidelines see Annex I, 7.4 Data sharing.

3 Data Management Policy : FAIR Data

3.1 Making data findable, including provisions for metadata

Digital Object Identifier (DOI)

All open data, publications and open source software produced in P2R will be identifiable and locatable by means of a persistent Uniform Resource Locator (URL). If possible, open P2R results will be assigned a Digital Object Identifier (DOI) in order to make content easily and uniquely citable.

Open results that are deposited in the default Open Access repository (Zenodo, see below) will be assigned a DOI automatically and will benefit also from Zenodo’s DOI versioning support.

Open results that are deposited in institutional repositories, repositories of scientific publishers or other data and research repositories will be at least definable by a persistent URI. If the institution is a DOI registrant that has an agreement with a DOI registration agency, a DOI will be assigned, too.

Whether scientific publications will be assigned a unique identifier like DOI, Publisher Item Identifier (PII), International Standard Serial Number (ISSN), etc. depends on the open access strategy (green or gold) chosen by the editors and thus also on the respective scientific publisher and the chosen research repository.

Naming conventions

Files and folders at data repositories will be versioned and structured by using a name convention consisting as follow:

FileType_FileVersion/Number_P2R_PartnerNumber-PartnerName_YYMMDD.FileExtension (ex. D6.5_V.01_P2R_P1-BRGM_210603.doc)

FileType are:

- D stands for Deliverable
- DS stands for DataSet
- F stands for File (generic, ex. images, table, document)

Zenodo

P2R open data will be collected in an open online research data repository: Zenodo. Its repository structure, facilities and management are in compliance with FAIR data principles. Zenodo is an OpenAIRE that allows researchers to deposit both publications and data, providing tools to linking them to these through persistent identifiers and data citations. Zenodo is set up to facilitate the finding, accessing, re-using and interoperating of data sets, which are the basic principles that ORD projects must comply with. Zenodo repository is provided by OpenAIRE and hosted by CERN. Zenodo is a catch-all repository that enables researchers, scientists, EU projects and institutions to:

- Share research results in a wide variety of formats including text, spreadsheets, audio, video, and images across all fields of science;
- Display their research results and get credited by making the research results citable and integrating them into existing reporting lines to funding agencies like the European Commission;
- Easily access and reuse shared research results;
- Assign a DOI automatically to each result deposited in the repository,
- Integrate their research outputs with the OpenAIRE portal.

Search keywords

Zenodo allows to perform simple and advanced search queries on Zenodo using the keywords. Zenodo also provides a user guide with easy to understand examples. The Data Controllers at each pilot site will be responsible for uploading public datasets that they have generated and to assign specific keywords relevant to these datasets. Dataset specific keywords must be descriptive to the content of the dataset. In addition, the project has defined a set of general keywords that should apply to all public datasets, scientific publications and public deliverables. These are as follow:

Climate resilience, local communities, strategies, regions, inclusive, sustainable future.

Version numbers

Individual file names and datasets will contain version numbers that will be incremented at each revision (Vxyz). For publications, versioning is in general not necessary.

Zenodo provides DOI versioning of all datasets uploaded to their communities, which allows us to edit and update the uploaded datasets after they have been published. This also allows us to cite specific versions of an upload and cite all versions of an upload.

Metadata

Metadata is data on the research data themselves. It enables other researchers to find data in an online repository and is, as such, essential for the reusability of the dataset. By adding rich and detailed metadata, other researchers, can better determine whether the dataset is relevant and useful for their own research. Metadata will be uploaded in a standardized form. This metadata will be kept separate from the original raw research data.

All metadata will be made available and is licensed under CC0, as soon as the different topic specific metadata schemas are established within the project. It is currently recognized within

the project, that there are various gaps and conflicting metadata schemas and definition, which will require first a harmonization or possibly a distinction between the different fields.

All datasets, which will be shared openly on trusted repositories will be available for at least 10 years. This will be one of the criteria, which is in the checklist to assess any repository, before it is put on the list of trusted repositories, which should be used by project partners. Furthermore, it will be checked if the metadata will remain openly available, even after the datasets have been discarded after the data retention period has expired. This also depends on the arrangement of the repository to warrant functionality over a given period of time. Assessing this part will also be part of the checklist to assess repositories. This common repository checklist will be part of the next version of the DMP.

The following deposition metadata fields are mandatory for P2R:

- the terms “European Union (EU)” and “Horizon Europe”;
- the name of the action, acronym and grant number;
- the title and description of the deposition metadata,
- the upload type (publication, dataset, software, ...),
- the publication date (ISO8601 format, YYYY-MM-DD), and length of embargo period if applicable;
- the creators/authors of the deposition,
- the persistent identifier (DOI),
- the used keywords.

This minimal metadata schema can be extended by arbitrary subjects upon request of the consortium.

For more information and guidelines see Annex I, 7.4 Data Sharing and 8.5 Metadata & documentation.

3.2 Making data openly accessible

3.2.1 Data made openly available as the default

In order to maximise the impact of P2R research data, the results are shared within and beyond 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.

The P2R project datasets are first stored and organized in a database by the data owners (personal computer, or on the institutional secure server) and on the project database (project website). All data are made available for verification and re-use, unless the task leader can justify why data cannot be made openly accessible. To protect the copyright of the project knowledge, Creative Commons license will be used in some cases.

The P2R dataset deliverables are both public (data access policy unrestricted) and they will be accessible by:

- P2R project web site
- Partners database
- OpenAIRE
- Zenodo for ORDP data and datasets

- Open access journals

All data deposited on Zenodo are accessible without restriction for public.

3.2.2 How will the data be made accessible

P2R open results will be made accessible according to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon Europe.

Open data: All open results (data, software, scientific publications) of the project will be openly accessible at an appropriate Open Access repository (i.e. Zenodo) as soon as possible. Specifically, research data needed to validate the results in the scientific publications will be deposited in a data repository at the same time as a publication. Non-public research data will be archived at the repository using a restricted access option.

Scientific publications: Providing open access to peer-reviewed scientific publications can be ensured either by publishing in green or gold open access journals with or without author processing fees. Any scientific publications from P2R and the related bibliographic metadata must be made available as open access and announced on the project website (<https://gemini-initiative.com/>) as well as in the OpenAIRE portal (<https://www.OpenAIRE.eu/>) and the R&I Participant Portal (<https://ec.europa.eu/research/participants>). To automate the process of reporting scientific publications and related research data in OpenAIRE, the publication should be deposited in an OpenAIRE-compliant repository, either by the authors of the publication (green open access) or by a scientific publisher (gold open access). While additional forms of disseminating open access papers, including academic social network sites such as ResearchGate (<https://www.researchgate.net/>) are possible, an electronic copy of the publication has to be deposited in suitable open access repository in the first place. According to the European Research Council’s Guidelines on Open Access, “Venues such as Research Gate or Academia.edu that require users to register in order to access content do not count as repositories. The posting of publications on a personal, institutional or project specific webpage or the deposit in a publicly accessible Dropbox account is not sufficient to satisfy the requirements either.”

If the chosen repository is not fully OpenAIRE complaint, the publications or data must be linked at <https://www.openaire.eu/participate/claim> with the respective funding agency (European Commission). Green open access journals or gold open access journals without author processing fees should be preferred for disseminating scientific publications of the P2R project. Nevertheless, the journal’s visibility and prestige (translated in the Impact Factor) of the journal, together with the speed of publication, should be considered when choosing a journal for publication of a manuscript. According to the EC recommendation, authors of the publication are encouraged to retain their copyright and grant adequate licences to publishers.

- Green open access (self-archiving)
Green open access or self-archiving means that the published article or the final peer-reviewed manuscript is archived by the researcher itself in an online repository, in most cases after its publication in the journal. The journal must grant the researcher the permission to self-archive the final peer-reviewed article, at the latest, 12 months after publication. For finding suitable green open access publishers, researchers are encouraged to consult RoMEO (<http://sherpa.ac.uk/romeo>), a searchable database of publisher's policies regarding the self- archiving of journal articles on the web and in Open Access repositories.
- Gold open access (open access publishing)
Gold open access means that the publication is available by the scientific publisher as open access. Some journals require an author-processing fee for publishing open access. Author-publishing fees for gold open access journals can be reimbursed within the project period and budget. Some publishers allow the researcher to deposit a copy of the

article in a repository, sometimes with an embargo period. For finding suitable gold open access publishers, researchers are encouraged to consult the Directory of Open Access Journals (<https://doaj.org/>), a service that indexes high quality, peer-reviewed open access academic journals that use an appropriate quality control system.

3.2.3 Methods and/or software needed to access the data

Regarding the mere access to open data deposited as data files in a data repository, there are no special methods or software tools needed. The files can be downloaded from the data repository using a standard web browser. The offline viewing, interpreting, processing and editing of data files downloaded from the data repository, it heavily depends on the type and format of the data.

3.2.4 Data sharing exceptions

1. Copyright and permissions for re-using third-party data sets

Processing and combining input data from many different sources may lead to unclear IPR situations regarding the generated output data, therefore such repurposed data (e.g. model output data) can only be made open if any of the underlying data (e.g. model input data) is open, too.

For this: potential users must contact the IPR (Intellectual Property Rights) team or the data owner in order to gain access. If necessary, appropriate IPR procedure (such as non-disclosure agreement - NDA) will be used.

2. Personal data treatment and confidentiality issues

Datasets referring to the quality and quantity of certain elements at risk, such as people and critical infrastructures, are not open by default as their publication may pose privacy, ethical or security risks.

3. Data-driven business model

Data that will be exploited commercially will not be made open.

3.2.5 Specific partner provisions

Partner	Specific Provision
CKIC	The data collected through the Open Calls will be used for the purposes of evaluation and designing support services for European regions. Personal information (particularly contact data) will be shared solely for administrative purposes related to the activities that have been consented to, either when filling the application or expression of interest or when signing a subgranting contract. Any personal data will be processed by EIT Climate-KIC in accordance with its privacy policy notice available at: https://www.climate-kic.org/policies/privacy-policy/ Non-personal data (or technical data) will be made available to the following actors: External evaluators will have access to the data only for the duration of time necessary for the evaluation (with boundaries clearly defined in their separate contracts). The P2R consortium, the Mission Secretariat and other Mission Adaptation projects will have access to the data across the duration of the project as it can be beneficial for the implementation of the Mission.
Deltares	No specific provisions are noticed as of 25.07.2023. This may, in principle, change over the course of the project.
ICLEI	The data collected as part of WP4 will serve to develop policy briefs and deliverables which will be published on the project website.

IIASA	
RCCC	
ERRIN	The data collected through the Expression of Interest questionnaire will be made available to the entire P2R consortium and will be shared with other Mission Adaptation projects that could benefit from this data. Personal information will only be shared with P2R consortium partner that need access to this information.
LGI	
IIED Europe	The data collected through the self-assessment tool will be useful for projects selection process in WP3 (i.e., part of the call), in the onboarding process (building cohorts, targeting activities based on maturity) and in developing regional analytical profiles of 3-5 pages (WP1). Personal information will only be shared with P2R consortium partner that need access to this information.
TECNALIA	No specific provisions are noticed as of 27.06.2023. This may, in principle, change over the course of the project.
Regions4	The Regions4 database collected through the RegionsAdapt progress reports, regional practices/case studies, publications, and other learning tools and materials.
PPMI	The data collected through the self-assessment tool and related regions and communities' risk assessment will be used as part of the regional projects' selection process in WP3 (i.e., part of the call), in the onboarding process (building cohorts, targeting activities based on maturity) and in developing regional analytical profiles of 3-5 pages which will specifically focus on the level of vulnerability, capacities and risks of the selected regions (WP1). Personal information will only be shared with P2R consortium partner that need access to this information.
AUEB	
PWA	No specific provisions are noticed as of 25.07.2023. This may, in principle, change over the course of the project.
GIB	No specific provisions are noticed as of 27.06.2023. This may, in principle, change over the course of the project.

3.2.6 Sensitive data restrictions

All partners: Each partner, who will institute a restricted access to their datasets, will setup a procedure that will identify persons who require access to these datasets. This identification and access procedure will be described by the respective partner in detail in the next version of the DMP. The RDM of the project will review the procedure and can make recommendation. In the next version of the DMP all the partners with restricted access will be listed and their procedures will be described.

3.2.7 Data access committee

Each partner, which has personal and/or sensitive data, has to setup a procedure, which identifies persons, who require access to these datasets. Besides that, they have to have a data access committee, which involves at least one legal specialist in personal and sensitive data, which grants access to the data based on the previously defined procedure. In the next version of the DMP all the partners with personal and/or sensitive data will be listed, and their procedures will be described. This also includes the data access committee.

3.2.8 How will access be provided if there are restrictions on use to data

Where a restriction on open access to research data is necessary, attempts will be made to make data available under controlled conditions to other individual researchers. In the case where restricted or embargoed data is stored in the Zenodo repository, information about the restricted data will be published in the repository, and details of when the data will become available will be included in the metadata. According to the Q&A session “Open Research Data in HE and Zenodo repository”, Metadata for both open, closed, embargoed and restricted records are always publicly available in Zenodo. Data files and data sets for restricted access records are only visible to their owners and to those the owner grants access. Restricted access allows a researcher to upload a dataset and provide the conditions under which he/she grants access to the data. Researchers wishing to request access must provide a justification for how they fulfil these conditions. The owner of the dataset gets notified for each new request and can decide to either accept or reject the request. If the request is accepted, the requester receives a secret link which usually expires within 1-12 months.

For more information and guidelines see Annex 8.4 Data sharing

3.3 Making data interoperable

General data and metadata vocabularies, standards, formats and methodologies will be followed. Nevertheless, there are no generally accepted and standardized field specific data and metadata vocabularies, standards, formats and methodologies. Partners will try to follow community-endorsed interoperability best practice. But first it has to be verified that the majority of the project partners are technically capable implementing these best practices. More details will be given in the next version of the DMP.

P2R will have to generate project specific ontologies and vocabularies. Partners will try to follow the examples of already existing ontologies and vocabularies to achieve some harmonization. But in any case, will be openly published as soon as a first version has been approved. They will be updated regularly. The next version of the DMP will deliver updated information concerning this topic.

3.4 Increase data re-use

The research data management team will advise partners in the project concerning research outputs other than data. The team will develop a process how to handle the research output generated within the program. This process will be described in more detail in the next version of the DMP.

For more information and guidelines see Annex 1, 8.6 Storage and security

3.5 DMP quality and review process & data inventory

Internal process of quality evaluation and reporting is activated throughout the entire project duration to assess both project data /products and project process (See the D6.4 - Project Quality Plan). An internal peer review is performed for the main project deliverables to guarantee the deliverable is developed with a high level of quality. Each WPL has to submit all the produced documents to another partner assigned as internal reviewer to check for the quality of the documents produced.

Results data will be also analysed and collected throughout the project entire duration. To this purpose the Dissemination and Communication Plans (D8.1) will also be filled in by each partner about every six months: it includes the description of articles, papers and scientific publications too. Thus, all research data generated and publications will be analysed and described by using

the Data Inventory Table (Annex II), WPLs and partners authors of publications are required fill in periodically.

Further updating of the DMP will include the eventually updating of online research data repository where data are collected and shared and the data the description of dataset and research data gradually generated and collected.

3.6 Other research outputs

In addition to the management of data, beneficiaries should also consider and plan for the management of other research outputs that may be generated or re-used throughout their projects. Such outputs can be either digital (e.g., software, workflows, protocols, models, etc.) or physical (e.g., new materials, antibodies, reagents, samples, etc.).

Beneficiaries should consider which of the questions pertaining to FAIR data above, can apply to the management of other research outputs, and should strive to provide sufficient detail on how their research outputs will be managed and shared, or made available for re-use, in line with the FAIR principles.

4 Data security

4.1 Data access

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

- Store data in at least two separate locations to avoid loss of data;
- Encrypt data if it is deemed necessary by the participating researchers;
- Limit the use of USB flash drives;
- Label files in a systematically structured way in order to ensure the coherence of the final dataset.

All project deliverables and data will be stored and shared in the dedicated Teams repository restricted to the project consortium. As an initial step, only the Consortium Partners will have access to the repository where dataset and metadata are filed. The protection of data will be ensured through procedures and appropriate technologies (e.g., HTTPS protocol for the encryption of all internet transactions and appropriate European and Internet security standards from ISO, ITU, W3C, IETF and ETSI). If data will be kept in a certified repository, then the security standards of that repository will apply.

Following, scientific publications and articles, the dataset deliverables and the final demonstrator research results will be shared through Zenodo and other database to promote the data making FAIR.

4.2 Data preservation

Data preservation refers to data upkeep and maintenance to ensure that the integrity of the data is upheld in the future. This includes properly maintaining the data repository and data backups to ensure the long-term value of the data.

Data backups are expected to occur once a week, though this is subject to change based on the amount of data that will ultimately need to be backed up. Estimating the size of the data is difficult to accomplish at this time since the data that will be initially included in the project has not been fully identified yet. An initial inventory will be identified by the Consortium. A better impression on the size of the data can be made after these datasets have been identified. However, P2R is designed and intended to have useful data added on a consistent basis, so the size will likely change over time, as well.

The Teams repository has no limits on the size of data that can be stored.

The P2R data can be downloaded and copied to personal computers without monitoring by each partner having access to the project repository.

5 Ethical aspects

5.1 General Data Protection Regulation (GDPR)

The P2R project is fully compliant with the General Data Protection Regulation (GDPR) laid out in Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC and respects regulations on intellectual property rights (IPR).

Repository and database access will be fully anonymous. If a user wishes to use the Teams of the P2R project, they will be required to register an account. The user must provide their email address and grant their consent that their email address be processed and used for account-related communications and management. The user is free to revoke their consent at any time, which would lead to the deletion of their access to the Teams.

5.2 Sensitive data

Sensitive data is data that is either private or confidential and includes personal user data. The proper management of sensitive data is imperative to maintain the individual privacy and remain in compliance with both EU and international regulations.

In order to ensure sensitive data is properly managed, data that is considered sensitive should first be identified. Thus, the main ethical and privacy issues with sensitive data arise from ensuring the data remains private and that proper consent is obtained before the data is shared or published in any way. Sensitive data will be stored in privately by partners handling the data. Measures to protect the privacy of individuals providing sensitive data will be taken in any instance where sensitive data will be collected and published.

When possible, response data will be anonymized so that it cannot be directly attributed to the responder (for example, by delineating a numeric code to an individual). In addition, data will be reported in aggregated forms to further prevent any firm or individual from being identified through their response. If anonymization is not possible, then the explicit permission will be received prior to the publication of sensitive data. In any case, sensitive data will always remain confidential.

For more information and guidelines see Annex I, 8.7 Ethics and privacy and Annex IV

6 Allocation of resources

Costs

Costs related to open-access to research data in HE are eligible for reimbursement under the conditions defined in the GA, but also other articles relevant for the cost category chosen. Project beneficiaries will be responsible for applying for reimbursement for costs related to making data accessible to others beyond the consortium.

The costs for making data FAIR includes:

- Fees associated with the publication of scientific articles containing project’s research data in “Gold” Open access journals. The cost sharing, in case of multiple authors, shall be decided among the authors on a case-by-case basis;
- Project Website operation: to be determined;
- Data archiving at Zenodo and on other on line data base: free of charge
- Copyright licensing with Creative Commons: free of charge.

Each partner is responsible for the data they produce. Any fee incurred for Open Access through scientific publication of the data will be the responsibility of the data owner (authors) partner(s).

No immediate costs are anticipated for open data that is stored for long-term preservation in the Zenodo repository. Additional details will be reported, as needed, in future versions of the DMP.

Responsibility

Data management activities concern the whole project and needs to be coordinated and monitored both at project and work package level. Data management is also linked to publication of project results and thus dissemination activities.

The overall responsibility for data management lies with the project coordinator, P2R from P2R.

The project member of the Executive Committee (i.e. WPLs) are also responsible of the Data Management of P2R dataset and research data.

The Coordinator (project data manager) and the WPLs (WP data managers) are responsible for:

- Developing and implement the data management plan and policy in cooperation with the project management,
- Monitoring data management activities (both collection and publication) and deadlines,
- Monitoring that open results (data and software) are deposited in the default repository or a complementary OpenAIRE-compliant repository and that are linked with P2R,
- Providing support and sending reminders to all partners,
- Writing and upload the data management plan,
- Offering assistance in choosing the right publication path (green or gold open access),
- Offering customized help and further guidance for publishing scientific publications,
- Ensuring that the open access policy of the journal complies with the HE open data requirements before the researcher submits a manuscript,
- Monitoring that green access (self-archiving) publications are deposited in repositories and sending reminders to partners,
- Monitoring that metadata about publications is made available in the R&I Participant Portal (preferably automatically through OpenAIRE) and on the P2R website,
- Monitoring that research data related to a publication is made available in repositories and linked to respective publication,
- Monitoring possible embargo periods and sending reminders to partners,
- Monitoring that publications available in OpenAIRE are properly linked with P2R,
- Describing the data (by means of appropriate metadata) or scientific publication in accordance to the P2R data management policy (e.g. according to the chosen metadata standard) and with help of the tools (e.g. template, web form, ...) provided by the project.

For more information and guidelines see Annex I ,8.6 Storage and security, 8.8 Roles and Responsibilities, 8.9 Preservation

7. Conclusion

This document describes the main principles and guidelines for the Data Management for the P2R project. As a living document, it will be updated throughout the project lifetime. Further updating of the DMP will include the eventual updating of an online research data repository where data are collected and shared and the data description of datasets and research data gradually generated and collected.

Bibliography

Huberman, N., & Pearlmutter, D. (2008). A life-cycle energy analysis of building materials in the Negev desert. *Energy and Buildings*, 40(5), 837–848. doi:10.1016/j.enbuild.2007.06.002

Bending, R., & Eden, R. J. (1984). *UK Energy: Structure, Prospects, and Policies*. Cambridge, UK

European Commission. *Horizon Europe Programme. Guidance for the classification of information in research projects*.

European Commission. *Horizon Europe Programme. Guidelines on FAIR Data Management in Horizon Europe*.

European Commission. *Horizon Europe Programme. Guidelines to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon Europe*.

European Union (2020). Intellectual property rights. https://europa.eu/youreurope/business/running-business/intellectual-property/rights/index_en.htm

European Parliament (2021). Regulation (EU) 2021/695 of the European Parliament and of the Council of 28 April 2021 establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32021R0695>

European Parliament (2016). Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC. <https://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:32016R0679>

8 Annex I : Digital Curation Centre (DCC) – Information

This chapter summarizes information provided by the Digital Curation Centre (DCC). The DCC was founded in 2004 to enable research data management the use of data that are findable, accessible, interoperable and reusable (FAIR). The information shared in this chapter can be seen as a guideline for the implementation of a successful Data Management Plan.

8.1 Data Collection

- Outline how the data will be collected and processed. This should cover relevant standards or methods, quality assurance and data organisation.
- Indicate how the data will be organised during the project, mentioning, e.g., naming conventions, version control and folder structures. Consistent, well-ordered research data will be easier to find, understand and reuse.
- Explain how the consistency and quality of data collection will be controlled and documented. This may include processes such as calibration, repeat samples or measurements, standardised data capture, data entry validation, peer review of data or representation with controlled vocabularies.
- See the DataOne Best Practices for [data quality](#).

8.2 Data Description

- Give a summary of the data you will collect or create, noting the content, coverage and data type, e.g., tabular data, survey data, experimental measurements, models, software, audio-visual data, physical samples, etc.
- Consider how your data could complement and integrate with existing data, or whether there are any existing data or methods that you could reuse.
- Indicate which data are of long-term value and should be shared and/or preserved.
- If purchasing or reusing existing data, explain how issues such as copyright and IPR have been addressed. You should aim to minimise any restrictions on the reuse (and subsequent sharing) of third-party data.

8.3 Data volume

- Note what volume of data you will create in MB/GB/TB. Indicate the proportions of raw data, processed data, and other secondary outputs (e.g., reports).
- Consider the implications of data volumes in terms of storage, access and preservation. Do you need to include additional costs?
- Consider whether the scale of the data will pose challenges when sharing or transferring data between sites; if so, how will you address these challenges?

8.4 Data sharing

- How will you share the data e.g. deposit in a data repository, use a secure data service, handle data requests directly or use another mechanism? The methods used will depend on a number of factors such as the type, size, complexity and sensitivity of the data.
- When will you make the data available? Research funders expect timely release. They typically allow embargoes but not prolonged exclusive use.

- Who will be able to use your data? If you need to restrict access to certain communities or apply data sharing agreements, explain why.
- Consider strategies to minimise restrictions on sharing. These may include anonymising or aggregating data, gaining participant consent for data sharing, gaining copyright permissions, and agreeing a limited embargo period.
- How might your data be reused in other contexts? Where there is potential for reuse, you should use standards and formats that facilitate this, and ensure that appropriate metadata is available online so your data can be discovered. Persistent identifiers should be applied so people can reliably and efficiently find your data. They also help you to track citations and reuse.

8.5 Metadata & documentation

What metadata will be provided to help others identify and discover the data?

- Researchers are strongly encouraged to use community metadata standards where these are in place. The Research Data Alliance offers a [Directory of Metadata Standards](#). Data repositories may also provide guidance about appropriate metadata standards.
- Consider what other documentation is needed to enable reuse. This may include information on the methodology used to collect the data, analytical and procedural information, definitions of variables, units of measurement, any assumptions made, the format and file type of the data and software used to collect and/or process the data.
- Consider how you will capture this information and where it will be recorded, e.g., in a database with links to each item, in a 'readme' text file, in file headers, etc.

8.6 Storage and security

- Describe where the data will be stored and backed up during the course of research activities. This may vary if you are doing fieldwork or working across multiple sites so explain each procedure.
- Identify who will be responsible for backup and how often this will be performed. The use of robust, managed storage with automatic backup, for example, that provided by university IT teams, is preferable. Storing data on laptops, computer hard drives or external storage devices alone is very risky.
- See UK Data Service Guidance on [data storage](#) or DataONE Best Practices for [storage](#).
- Also consider data security, particularly if your data is sensitive e.g., detailed personal data, politically sensitive information or trade secrets. Note the main risks and how these will be managed. Also note whether any institutional data security policies are in place.
- Identify any formal standards that you will comply with, e.g., ISO 27001. See the DCC Briefing Paper on Information Security Management - [ISO 27000](#) and UK Data Service guidance on [data security](#).

8.7 Ethics and privacy

- Investigators carrying out research involving human participants should request consent to preserve and share the data. Do not just ask for permission to use the data in your study or make unnecessary promises to delete it at the end.
- Consider how you will protect the identity of participants, e.g., via anonymization or using managed access procedures.

- Ethical issues may affect how you store and transfer data, who can see/use it and how long it is kept. You should demonstrate that you are aware of this and have planned accordingly.
- See UK Data Service guidance on consent for data sharing.
- See ICPSR approach to confidentiality and Health Insurance Portability and Accountability Act (HIPAA) regulations for health research.

8.8 Roles and Responsibilities

- Outline the roles and responsibilities for all activities, e.g., data capture, metadata production, data quality, storage and backup, data archiving & data sharing. Individuals should be named where possible.
- For collaborative projects you should explain the coordination of data management responsibilities across partners.
- See UK Data Service guidance on [data management roles and responsibilities](#) or DataONE Best Practices: [Define roles and assign responsibilities for data management](#).

8.9 Preservation

- Outline the plans for data sharing and preservation - how long will the data be retained and where will it be archived? Will additional resources be needed to prepare data for deposit or meet any charges from data repositories?
- See the DCC guide: [How to appraise and select research data for curation](#) or DataONE Best Practices: [Identifying data with long-term value](#).

9 Annex II - Data sets collected in the project

Data set reference and name: P2R – Self-assessment tool responses, related climate risk and vulnerability assessment Person(s) in charge: Stefano D’Errico (IIED Europe)		
Data Type	Data Standards - Formats	Data Generation Software
Self-assessment (i.e. survey) data	.xls, Rdata, .pdf	Online survey tool (Alchemer), R, offline self-assessment form if required
Climate risk and vulnerability assessment	.xls, Rdata	Excel, R
Estimated Data Size	Data Sharing	Data Storage and Preservation
Not able to determine at this point (dependent on number of self-assessments).	Data will be shared within the P2R consortium and with other Mission Adaptation projects as relevant	Storage and preservation on Microsoft SharePoint and secure cloud service.

Name of the data set	Self-assessment tool responses, related climate risk and vulnerability assessment
Description	<p>The self-assessment data will be collected from local and regional authorities through a self-assessment tool that is hosted online (Alchemer) or distributed as an offline self-assessment form. The tool will gather information on regions and communities’ capacities related to climate change. The information collected will focus on different institutional capacities (i.e., financial information, strategic planning related to climate change, institutional coordination, the extent climate information is used in decision-making and planning) and will also collect personal information (e.g., name, email address, job title).</p> <p>The climate risk and vulnerability data will be gathered from public sources, i.e., relevant government or statistical authorities (e.g. Eurostat) or relevant research institutions or international organisations.</p>
Media Type	Numerical, text
Language(s)	English
Use & re-use	The data will be used in the to enable the project to contact regions and communities during the selection process (i.e., part of the call). The data will be used to developing regional analytical profiles of 3-5 pages which will specifically focus on the level of vulnerability, capacities and risks of the selected regions (WP1).
Size	To be determined
Format/license	.xls and .pdf

Version number	1
----------------	---

Data set reference and name: P2R – Eol questionnaire responses Person(s) in charge: Heidi Johansson		
Data Type	Data Standards - Formats	Data Generation Software
Survey data	.xls and .pdf	EU Survey Platform
Estimated Data Size	Data Sharing	Data Storage and Preservation
10-20 MB for PDF 600-1000 KB for Excel	Data will be shared within the P2R consortium and with other Mission Adaptation projects	Storage and preservation on Microsoft SharePoint and EU Survey Platform

Name of the data set	Eol questionnaire responses
Description	<p>The data set contains information on: 1) contact information and information on the region or community, 2) regions and communities' strategic work related to climate adaptation, 3) how regions and communities collaborate with their local stakeholders, 4) regions and communities' barriers to climate adaptation, and 5) capacities that regions and communities wish to further develop. The data will be used by the P2R project to support selected regions in their stakeholder engagement activities and to inform the design of the project's support services and capacity-building activities.</p> <p>The data collected could also be of interest to the European Commission as well as other Mission Adaptation projects, in particular the CLIMAAX and MIP4Adapt projects.</p> <p>The data has been collected from local and regional authorities through a questionnaire that is hosted on the EU Survey Platform.</p>
Media Type	Text
Language(s)	English
Use & re-use	The data will be used to support the design of the P2R support services and capacity-building activities and to inform the project of which regions that would need stakeholder engagement support. Finally, the contact information will be used to directly disseminate information on the calls for proposals to the interested regions and communities. An overview and analysis of the data collected will be reported in two deliverables that only will be shared with the European Commission (dissemination level: Sensitive). Selected data may also be shared with other Mission Adaptation projects, in particular CLIMAAX and MIP4Adapt.
Size	10-20 MB for PDF 600-1000 KB for Excel
Format/license	.xls and .pdf

Name of the data set	Complete title of the data set
----------------------	--------------------------------

Description	<ul style="list-style-type: none"> • A brief, easy to understand description of what the dataset contains and what it will be used for in the project • A list of institutions to whom the data set could be useful outside the project • Whether the dataset has been/will be used for a scientific publication (if yes, brief details about the content and journal) <p>If the dataset is collected, a brief description of its origin and how it was collected will be provided</p>
Media Type	The physical medium of the content representation, e.g., video, image, text, numerical data, n-grams, etc.
Language(s)	The language(s) of the resource content
Use & re-use	Foreseen use of the resource for which it has been produced
Size	Size of the resource with regard to a specific size unit measurement in the form of a number
Format/license	The format in which the data will be available (e.g. .xls, .csv, .txt) will be provided. The license to be used will also be provided.

Data set reference and name: WP3 Person(s) in charge: RS (CKIC)		
Data Type	Data Standards - Formats	Data Generation Software
Application data to the 2 open calls; 2 technical reports & 2 financial reports per open call (for each of the 100 subgrantees)	Applications: .csv Reporting: .pdf	TBD
Estimated Data Size	Data Sharing	Data Storage and Preservation
Insignificant, under 1 GB Applications: 150-200 files Reports: 400 files	Internal use only	Stored in internal consortium cloud, deleted X years after project conclusion

Name of the data set	Applications to open calls
Description	Information required from subgrantees to be considered in the open call, ranging from legal form, resilience self-assessment to estimated budget
Media Type	.csv
Language(s)	English
Use & re-use	Internal use only
Size	Insignificant, under 1 GB; 150-200 files
Format/license	Private

10 Annex III - Data sets could be made openly accessible

Data producer	Brief description of dataset	Foreseen use & re-use	Possibility to share the data beyond the consortium
CKIC			
Deltares	N/A		
ICLEI	Information on best practices and enabling conditions	The data will be key for the organisation of deep dive activities in WP4	Through the deep dive sessions and WP4 deliverables, the information will be shared publicly and broadly
ERRIN	Information on : 1) regions and communities' strategic work related to climate adaptation, 2) how regions and communities collaborate with their local stakeholders, 3) regions and communities' barriers to climate adaptation, and 4) capacities that regions and communities wish to further develop.	The data will be used to support the design of the P2R support services and capacity-building activities and to inform the project of which regions that would need stakeholder engagement support.	Selected data may be shared with other Mission Adaptation projects, in particular CLIMAAX and MIP4Adapt. The questionnaire respondents are asked for the permission to share the information with other Mission Adaptation projects in the questionnaire's GDPR section.
IIED Europe	The data collected through the self-assessment tool includes wide-ranging information capturing different aspects of the region's capacity to plan and execute climate adaptation solutions. This would include information on institutional capacity, knowledge capacity, availability of budget and finances, as well coordination mechanisms in place to operationalise adaptation plans.	This data especially pertaining to the risks and capacities will be useful in the selection/identification of the region's most in need of support from P2R.	Selected data will emerge from the region and could be shared beyond the consortium provided it includes no sensitive or confidential information.

PPMI	The data collected through the self-assessment tool includes wide-ranging information capturing different aspects of the region's capacity to plan and execute climate adaptation solutions. This would include information on institutional capacity, knowledge capacity, availability of budget and finances, as well coordination mechanisms in place to operationalise adaptation plans	This data especially pertaining to the risks and capacities will be useful in the selection/identification of the region's most in need of support from P2R.	Selected data will emerge from the region and could be shared beyond the consortium provided it includes no sensitive or confidential information.
AUEB	Openly accessible data sets could include synthesized data on systemic barriers to adaptation finance, regional finance needs, and examples of good finance practices.	These data could be used for further research and policy development	They could be shared beyond the consortium, provided they do not contain sensitive or confidential information.
GIB	Certain self-generated data sets may, in principle, be made openly accessible under bilateral agreement with the P2R PMO.	Certain self-generated data sets may, in principle, be made openly accessible under bilateral agreement with the P2R PMO.	Certain self-generated data sets may, in principle, be made openly accessible under bilateral agreement with the P2R PMO.

11 Annex VI - Data sets to remain confidential

Data producer	Brief description of dataset	Foreseen use & re-use	Possibility to share the data beyond the consortium
CKIC	Non-aggregated/ individual application and reporting data	The data will be used for the purposes already described above: implementing the action & supporting the Mission.	The individual/ non-aggregated data will not be shared beyond the consortium, unless it is part of a report/case study, in which case

			consent will be requested from the individual entity.
Deltares	N/A		
ICLEI	The feedback on the Regional Resilient Journey and the information on needs for match making	The information will be used to develop internal processes and may be reused by other partners and WPs	These data will not be shared beyond the consortium. Only the needs of regions could be shared with the matched partner city/region when kick-starting activities
ERRIN	Contact information that has been collected through the Expression of Interest questionnaire.	The contact information will be used to directly disseminate information on the calls for proposals to the interested regions and communities.	This data will not be shared beyond the P2R consortium.
PPMI	Confidential datasets might include individualised information on regions capacities, personal information and other information that may be considered sensitive (e.g. regional finance strategies).	The data will be used in the to enable the project to contact regions and communities during the selection process (i.e., part of the call). The data will be used to develop regional analytical profiles.	Sharing these data beyond the consortium may not be possible due to confidentiality and privacy concerns.
AUEB	Confidential data sets might include individualized feedback from regions, detailed regional finance strategies, resource mobilization plans, and data from one-to-one support sessions.	These data would be primarily used for project development and support.	Sharing these data beyond the consortium may not be possible due to confidentiality and privacy concerns.
GIB	Survey Responses (responses and respondent metadata), Interview Transcripts (audio files, written transcripts), Transcripts from Roundtables & Workshops (audio files, written transcripts)	These data may be used, in principle, for project development and support, research and development and business development exploitation.	Sharing these data beyond the consortium may not be possible due to confidentiality and privacy concerns.

--	--	--	--