MOVING
MOUNTAIN VALORIZATION THROUGH INTERCONNECTEDNESS AND GREEN GROWTH

D8.3. Data Management Plan

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1. Introduction

The Open Research Data Pilot of the European Commission enables open access and reuse of research data generated by Horizon 2020 projects. There are two main pillars to the Pilot: developing a Data Management Plan (DMP) and providing open access to research data.

In order to adhere to the Pilot, research consortia under H2020 have to:

- Develop (and keep up-to-date) a Data Management Plan (DMP).
- Deposit data in a research data repository.
- Ensure third parties can freely access, mine, exploit, reproduce and disseminate your data.
- Provide related information and identify (or provide) the tools needed to use the raw data to validate the research.

The Pilot applies to:

- The data (and metadata) needed to validate results in scientific publications.
- Other curated and/or raw data (and metadata)

The DMP will function as a guiding document to ensure good data management throughout the lifecycle of the project in order to make the information collected and produced Findable, Accessible, Interoperable and Re-usable (FAIR).

2. Scope

This DMP describes how research data will be managed both throughout the lifecycle of MOVING and after the end of the project. It identifies procedures and minimum requirements to collect, store, analyse, and publish data in a consistent way according to the FAIR principles.

This document is a living document and will be regularly updated when necessary. All project partners will be informed of the changes made to this document. Common standards, folder structure and identifiers will be agreed in the Steering Committee (SC) meetings, and made available via the internal information processes (minutes) and during the meeting of the next General Assembly (GA). In addition, it will be stored in the Virtual Research Environment (VRE), the internal repository of documents of the project, ensuring this way that all partners have access.

3. Data Summary

3.1. Purpose of the data collection/generation and its relation to MOVING objectives

MOVING will build capacities and co-develop relevant policy frameworks across Europe for the establishment of new or upgraded/upscaled Value Chains that contribute to resilience and

sustainability of mountain areas through a multi-actor approach and a multi-disciplinary community connecting Academia, Research Organizations, SMEs, Private for Profit, NGOs, Development Agencies, Public Authorities, Citizen groups/local Communities and Media from 16 different EU & non-EU countries.

MOVING overarching goal is fulfilled through 7 objectives. Each objective has specific requirements of data collection/generation, as reported in the following table:

Table 1. Overall data requirements per project specific objective

1: To develop a global strategy to engage the main actors and stakeholders into a European-wide Community of Practice (CoP) on Mountain VCs, including actors from the Agricultural Knowledge and Innovation System (AKIS), value chain and policy-making stakeholders and society (WP1).	Objective 1 will elaborate and publish text and visual data produced through interaction with main actors and stakeholders. Data will be generated through face-to-face and online activities. Moreover, data collected for other objectives will be made available through dedicated software (VRE).
2: **To develop a conceptual and analytical framework** able to describe and interpret the diversity of mountain VCs and assess their contribution to the sustainability and resilience of mountain areas and population (WP2).	Objective 2 will require the collection and elaboration of data, often from reports, literature, and scientific publications to identify the relevant concepts to describe the diversity of mountain VCs, and to derive the research questions to assess their contribution to the sustainability and resilience of mountain areas and population.
3: **To provide easy-to-read visual tools** - especially maps and indicators that raise the awareness of AKIS, VC actors, civil society and policymakers on the diversity of land use and production systems of mountain areas, the threats they face, the bio-physical assets they can mobilize, their sustainability, and their resilience to CC (WP3).	Objective 3 will require the use and collection of different types of data. In the first two tasks, existing spatially explicit and open access datasets will be used. In the third task, data will be collected through participatory approaches, in which selected experts and citizens will participate. The fourth has the ambition of producing new datasets based on the data collected in the previous tasks. All data will be integrated into the VRE, where it can be explored by stakeholders using visual tools designed for this purpose.
4: **To study the configurations, the strategies, the dynamics, the value distribution of the VCs** (mapping 400 VCs in all EU regions and assessing in-depth 23 reference regions located in the main European mountainous areas (EU members states and	Objective 4 will build on data from reports, literature, policy documents or social media; as well as collecting text and visual data produced through interaction with VC actors (both online

associated countries) in order to assess their contribution to sustainability and resilience (WP4).	and face to face). Existing secondary datasets, collected by government statisticians, may also be used. These data will be used to understand how VCs contribute to sustainability and resilience and published in the WP deliverables.
5: **To develop in-depth, participatory, critical benchmarking of (cross-regional) clusters of mountain VCs** to identify enablers and blocking factors affecting the sustainability and resilience (WP5).	Objective 5 will elaborate and publish text and visual data produced through interaction at level of MaPs. It can also use data elaborated by WP4.
6:**To carry out a set of evidence-based foresight exercises** (at community, cross-regional and European levels) to capture and anticipate the long-term trends affecting mountain areas, co-constructing shared visions and strategies for a balanced mix of public and private goods, together with the main actors of the mountain VCs (WP6).	Objective 6 will require the collection of qualitative data from stakeholders during workshops and quantitative data from surveys in order to elaborate foresight scenarios and provide data that will be used in the EU foresight model. Text will be published and visual data will be produced through interaction at level of MaPs.
7: **To develop a policy roadmap** and a 'Quick Start' policy design based on evidence-based and performance focussed recommendations to secure a long-term provision for the 'next generation' of policy interventions that enhance the connectivity, sustainability and resilience of mountain regions via the establishment of new or upgraded/upscaled VCs that deliver, both private and public goods (WP7).	Objective 7 will elaborate and publish text and visual data on existing policies of relevance to mountain value chains. This data will be collected through interaction with various policy-related actors at the level of MaPs.

3.2. Types and formats of data generated/collected

MOVING is a complex project, based on a participatory approach. Its core activities will be based on the work of 23 Reference Regions and MaPs as well as Community of Practice at EU level so most of the collected data will be originated by the organised interaction with stakeholders. These data will be integrated by a) scientific literature; b) official statistical data; c) numeric data based on interviews; d) text and image data available on the web; e) data collected through a survey and f) spatial data.

Table 2 shows a synthetic description of the data that will be used during the project. Annex I will provide a more detailed description.

Table 2. Synthesis of data collected by work package

Dataset	Type	Origin	Format	Availability	Utility
ALL WPs - working documents, reports and Deliverables	Report file	Own elaboration	.pdf	Open & Restricted	Researchers, AKIs, General Public, MaP members
ALL WPs - Presentations to meetings, workshops, conferences, leaflets, newsletter	Text file	Own elaboration	.pdf	Open	Researchers, AKIs, General Public, MaP members
ALL WPs - Practice Abstracts	Text file	Own elaboration	.pdf	Open	Researchers, AKIs, General Public, MaP members
ALL WPs - Policy Briefs	Text file	Own elaboration	.pdf	Open	Researchers, AKIs, Policy makers, MaP members
ALL WPs - Scientific articles	Published papers	Own elaboration	.pdf	Open	Researchers, AKIs.
ALL WPs - Events registrations	Text file	Own elaboration	.pdf	Restricted	Members of the Consortium
WP1 Webinars, videos, podcast	Multimedia	Own elaboration	Mp4, mov	Open after anonymisation	Researchers, AKIs, General Public, MaP members
WP1 MOVING MOUNTAINS APP	Software	Own elaboration	code	Open	Researchers, AKIs, General Public, MaP members
WP3 Spatial datasets	Numeric database	Own elaboration	Spatial data	Open	Researchers, AKIs, General

			formats (img; shp)		Public, MaP members
WP4 Digital Stories for each Reference Region	Multimedia files	Own production	Mp4, mov	Open	Researchers, AKIs, General Public, MaP members
WP4 Voice records	Multimedia	Own elaboration	Mp4, mov	Restricted	Researchers
WP4 Transcripts	Text file	Own elaboration	Pdf, doc, form	Restricted	Researchers
WP5 Voice records	Multimedia	Own elaboration	Mp4, mov	Restricted	Researchers
WP5 Transcripts	Text file	Own elaboration	Pdf, doc, form	Restricted	Researchers
WP6 Regional, Cross Regional and European H2050 agriculture scenarios data output	Numeric database	Own production	xlsx	Open	Researchers, AKIs, General Public, MaP members
WP9 H - Requirement No. 1	Ethics	Own production	Pdf, doc, form	Restricted	H - Requirement No. 1
WP9 POPD - Requirement No. 2	Ethics	Own production	Pdf, doc, form	Restricted	POPD - Requirement No. 2

3.3. The re-use of any existing data and how

MOVING will capitalize on already existing data and will integrate them with new data. Table below shows the main data on which MOVING will capitalize:

Table 3. Capitalisation of existing data

WP 1	• Existing materials on the topic will be used (images, footage, video, document, text, figures, maps)
WP2	• Literature review at International, European and national level
WP3	• Existing spatially explicit datasets at European and global levels (e.g., data from COPERNICUS, EEA, JRC, scientific papers)
WP4	• Academic and 'grey' literature (International, EU, Member State and regional examples of VCs) • EUROSTAT and national statistical data; spatial datasets and maps • Published business strategies and accounts • Policy documents and guidance • Social and news media
WP5	• Academic and 'grey' literature (International, EU, Member State and regional examples of VCs) • EUROSTAT and national statistical data; spatial datasets and maps • Published business strategies and accounts • Policy documents and guidance • Social and news media • Existing data / evidence collected in WP4
WP6	• Literature review at European and national level • Images and map of studied regions
WP7	• Existing data / evidence collected in the preceding WPs 4, 5 and 6 • Existing data on policies and policy processes that are available at European, national and (in some cases) regional level

For all available data, appropriate references to authors and institutions will be given.

3.4. Details of data origins

The details of existing datasets used in the research, or production of new data, will be reported in the relevant Deliverable or publications, and described and referenced in a specific Annex or sub-section. These will identify the source(s) of the data used, refer to any relevant limitations on its use with respect to the purpose in MOVING, clearance of any ethical considerations associated with the data, and ensure that it is cited as guided by the data provider or at least to appropriate standards:

APA style standard for dataset citation:

Basic form:
Author/Rightsholder. (Year). Title of data set (Version number) [Description of form]. Repository: Name of producer.
or
Author/Rightsholder. (Year). Title of data set (Version number) [Description of form]. Retrieved from http://

Example:
Pew Hispanic Center. (2008). *2007 Hispanic Healthcare Survey* [Data file and code book]. Retrieved from http://pewhispanic.org/datasets/

APA style standard for unpublished raw data citation:

Basic form:
Author, F. N. (Year). [Description of study topic]. Unpublished raw data.

Example:
Smith, J.A. (2006). [Personnel survey]. Unpublished raw data.

Ensuring the inclusion of referencing to data sourced from a third party is the responsibility of the relevant research team, Task and Work Package Leaders. The checking and verification of any specific wording required is covered by the quality control procedures specified in the Project management handbook (D8.2).

4. FAIR data

4.1. Making data findable, including provisions for metadata

Are the data produced and/or used in the project discoverable with metadata, identifiable and locatable by means of a standard identification mechanism (e.g. persistent and unique identifiers such as Digital Object Identifiers)?

MOVING will store data in the D4Science environment. D4Science can activate a dedicated catalogue in the environment. This Catalogue will be based on CKAN technology, enriched with plenty of additional features. The MOVING Catalogue can be configured to support publications per VRE and global, several metadata types, custom resource types, custom groups, etc.

For each type, the metadata format reported in the DMP will be defined. Then, from the workspace authorised people will be able to publish a file (or all files included in a folder) by selecting the type and by filling in the required metadata.

A DOI will be assigned to final versions of each data item while Persistent URL (PURL) will be assigned for any version generated and saved in the D4Science environment.

What naming conventions do you follow?

The general convention we will use is the following:

[WPx] [title] [year] [month] [verx] [.] ext

Example: WP1 DECO Strategy 2021 February ver2.pdf

Will search keywords be provided that optimize possibilities for re-use?

Yes

Do you provide clear version numbers?

MOVING uses a Virtual Research Environment with a workspace that automatically assigns a version number to the files of the workspace when a new file with the same name is uploaded. All versions will be conserved in the VRE and accessible through a unique and persistent URL. Moreover, any object and any of its versions stored in the workspace can be published in the MOVING Catalogue.

Data Items: specification of metadata

The following data items are foreseen to be created at this stage:

- Reports: metadata are included at the beginning of the same file.
- Database and spatial datasets: metadata are included in a separate sheet of the same excel file of the database.
- Presentations: Metadata are included at the end of the same file.
- Multimedia data: Metadata are included at the end of the same file.
- Practice abstracts, Policy briefs: Metadata are included at the end of the same file.

Reports

All MOVING reports will display the following information on their third page:

Table 4. Information in reports

Project Name	Mountain Valorisation Through Interconnectedness And Green Growth
Project ID	862739
H2020 Type of funding scheme	Research and Innovation Action (RIA)
H2020 Call ID & Topic	H2020-RUR-2019-2 / RUR-01-2018-2019
Website	www.moving-h2020.eu
Document Type	(Deliverable, Working Document)
File Name	
Status	Draft / Final

Version Number	
Dissemination level	
Date of creation	
Authors	
Internal reviewers	
Keywords	
Work Package Leader	
Project Coordinator	University of Cordoba

Moreover, the file will include this sentence:

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Database

Databases will be made available in .xlsx format. Metadata will follow the Dublin Core format (https://www.dublincore.org/).

Table 5. Metadata for databases

Content	Intellectual property	Instantiation
Title	Creator	Date
Subject	Publisher	Format
Description	Contributor	Identifier
Type	Rights	Language
Source		
Relation		
Coverage		

In the first sheet (metadata), the following metadata will be available (based on Dublin Core Format):

General information

Table 6. General information

H2020 Call ID & Topic	H2020-RUR-2019-2 / RUR-01-2018-2019
Work Programme	H2020-EU.3.2.1.3. - Empowerment of rural areas, support to policies and rural innovation
Project ID	862739
Project Website	www.moving-h2020.eu
Database type	Numeric, textual…
Title	
Creator	
Contributors	
Publisher	
Date	
Format	
Status of the document	Draft / Final
Draft version no	
Identifier	

Each database will be provided with information about structure and content, as follows. In some cases, information on the quality of the data will be provided.

Information about database structure and content

Table 7. Information about database structure and content

Field Label	Description	Type (numeric, text, time, y/n)	Format

Presentations

General information

Table 8. Information about presentations

H2020 Call ID & Topic	H2020-RUR-2019-2 / RUR-01-2018-2019
Work Programme	H2020-EU.3.2.1.3. - Empowerment of rural areas, support to policies and rural innovation
Project ID	862739
Project Website	www.moving-h2020.eu
Document type	Presentation
Title	
Authors	
Status of the document	Draft / Final
Draft version no	
Location (where presented)	
Keywords	

Multimedia

Table 9. Information about multimedia

H2020 Call ID & Topic	H2020-RUR-2019-2 / RUR-01-2018-2019
Work Programme	H2020-EU.3.2.1.3. - Empowerment of rural areas, support to policies and rural innovation
Project ID	862739
Project Website	www.moving-h2020.eu
Document type	Video, digital story, etc.
Title	
Authors	
Status of the document	Draft / Final
Draft version no	

Keywords	
Link	
Credits	

4.2. Making data openly accessible

Which data produced and/or used in the project will be made openly available as the default?

Most produced data will be openly available as the default, with the exception of the database of the user generated content of the VREs, as this is internal communication with little relevance for outsiders. However, these data may be made available upon motivated request after anonymisation.

How will the data be made accessible (e.g. by deposition in a repository)?

All processed MOVING data will be stored on the Zenodo repository after publication and/or delivery to the REA. Before that moment, the data will be stored in the MOVING VRE and accessible to all consortium members. Zenodo assigns a DOI to all documents uploaded, and allows the storage of metadata.

What methods or software tools are needed to access the data?

Most files will be accessible with general use of standard publicly available software tools (such us MS Office, Open Office, Adobe Reader, Image Viewer, etc.) making sure they are compatible with open source office tools. The Visualisation tool of georeferenced data (WP3) will have a version accessible via web, and a specific open access software will be created. The MOVING VRE offers space to store data also to the applications and not only to the humans. This is possible by using the Application token that is available for all environments and by exploiting the APIs that we provide. The application however does not allow making the data accessible to the VREs members. Rather, it allows the authorised applications to access and share data that they have produced. The act of making accessible the data either to the VREs members or in open-access remains a human decision and it required an action triggered by a human.

Next versions of the DMP will be more specific for other types of data such as for the MOVING App.

Is documentation about the software needed to access the data included? Is it possible to include the relevant software (e.g. in open source code)?

See above

Where will the data and associated metadata, documentation and code be deposited?

All MOVING data will be stored on the Zenodo repository after publication and/or delivery to the REA.

Have you explored appropriate arrangements with the identified repository?

Yes

If there are restrictions on use, how will access be provided?

Restriction is foreseen only for data generated by the internal social tool used by researchers within the VRE. They will be released upon approval of the data producers.

Is there a need for a data access committee?

No.

Are there well described conditions for access (i.e. a machine readable license)? How will the identity of the person accessing the data be ascertained?

Conditions for access are specified in Annex I.

4.3. Making data interoperable

Are the data produced in the project interoperable, that is allowing data exchange and re-use between researchers, institutions, organisations, countries, etc. (i.e. adhering to standards for formats, as much as possible compliant with available (open) software applications, and in particular facilitating re-combinations with different datasets from different origins)?

All metadata will refer to the Dublin Core format. Moreover, we will make our metadata available following the OAI-PMH standard. OAI-PMH is free if the project decides to exploit the MOVING Catalogue service provided by D4Science.

What data and metadata vocabularies, standards or methodologies will you follow to make your data interoperable?

These are community specific. A partial list of them should be included.

Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?

Next version of the DMP will address this aspect.

In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies?

Next version of the DMP will address this aspect.

4.4. Increase data re-use (through clarifying licences)

How will the data be licensed to permit the widest re-use possible?

For data and results requiring licencing, the default proposal is to use the Creative commons license. Specifications are made in the Annex I.

When will the data be made available for re-use?

In general, data produced in the project will be made openly available as soon as scientific papers are published and/or the related deliverables are uploaded in the EC Funding & Tenders Portal. Specific arrangements are specified in Annex I.

Are the data produced and/or used in the project useable by third parties, in particular after the end of the project?

The availability of data for use by third parties (i.e. external to the project) is set out in the Grant Agreement Article 29.3 on open access to research data. Access by third parties is subject to obligations on the protection of findings (Article 27), confidentiality (Article 36), security (Article 37) or the protection of personal data (Article 39), all of which have to be satisfied for data to be made available.

To enable reporting of dissemination and impact to the EU, it is planned that analytical data will be captured relating to access to project outputs. A minimum level of quantitative information required will be: e.g. downloads from the MOVING Library; number of user views of Visual tool of georeferenced data by the time of final project reporting. Where possible, the use of data will be tracked with users asked to provide feedback on outputs created or published using data generated within MOVING.

How long is it intended that the data remains re-usable?

MOVING will make relevant data available by the end of the project unless constrained by one of the issues identified below. Such data may be embargoed to protect Intellectual Property Rights of project partners. The final date of release of data will be reviewed in light of their prospective exploitation.

Access to data and its re-use is subject to the processes set out above. A high proportion of the data expected to be collected in the MOVING project are from workshops with Multi-Actor Platforms, interviews and post-event surveys. These means of collecting data are all subject to relevant legal requirements and appropriate best practices to protect personal data (i.e. comply with data protection obligations; MOVING D9.2. Protection of Personal Data), and ethical considerations (e.g. rights of participants to know the purposes for which information will be used, and by whom) as set out in Article 34 (Ethics and Research Integrity), and MOVING Deliverable 9.1).

Once data is made available for re-use, no embargo will be in place. At this stage, partners will have discharged their responsibilities to produce the scientific publications and deliverables from MOVING, and academic papers which draw directly on the data gathered. The process of making data available will be on behalf of each partner and each Work

Package, contributing to the planning and uploads of materials for which they have responsibility or an identifiable stake, and informing WP8 leader when this is the case.

Are data quality assurance processes described?

The processes for data quality assurance will follow agreed good practice for data capture and analysis relevant to each activity or disciplinary area of expertise. Project partners are all experienced in the collection and publishing of peer-reviewed outputs which are based on the data collected. The overall quality control procedures are defined in the Project Management Handbook (D 8.2).

The validity of the re-use of data will depend upon its nature and basis of its collection. That will be guided by the relevant partners and Work Package Leaders. The metadata will include date stamps covering its collection and its final cleaning for use in analysis. This will indicate the duration for which data will remain reusable. Any limitations to their use relating to timescales will be recorded. Such limitations are anticipated to be as noted below:

- Expiry of licence for use;
- Expiry of permission to use (e.g. video recording);
- Date of next update to data or known resurvey (e.g. agricultural census, EEA or Eurostat data published, FAOSTAT data, Land use and land cover survey -LUCAS)

Other time period related issues which are specific to a particular dataset will be documented by the relevant project partner, Task or Work Package Leaders.

5. Allocation of resources

What are the costs for making data FAIR in your project?

Zenodo will be the main open access repository selected to make data FAIR and have no cost. In relation with scientific publications, they should be published under the ‘golden’ option or if not possible under the ‘green’ option.

How will these be covered? Note that costs related to open access to research data are eligible as part of the Horizon 2020 grant (if compliant with the Grant Agreement conditions).

5 000 EUR have been allocated to open access for a research data repository and 20 000 EUR for join publications in open access journals.

Who will be responsible for data management in your project?

Each partner has to respect the policies set out in this DMP. Datasets have to be created, managed and stored appropriately and in line with applicable legislation.

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

WP leaders will ensure dataset integrity and compatibility for its use during the project lifetime by different partners.

Validation and registration of datasets and metadata is the responsibility of the partner that generates the data in the WP.

Backing up data for sharing through open access repositories is the responsibility of the partner possessing the data.

Quality control of these data is the responsibility of the relevant WP leader, supported by the Project Coordinator.

Are the resources for long term preservation discussed (costs and potential value, who decides and how what data will be kept and for how long)?

No specific financial value is expected to be associated with the long-term preservation of the data. However, benefits of long-term storage and preservation of the scientific datasets and databases planned to be produced by the project will enable comparisons and assessments of change in evidence on a given topic through time.

Some datasets might be specific to a time period or event (e.g., disrupting events: economic bank collapse; social conflict; environmental extreme weather events) and not possible to replicate thus compromising the veracity of subsequent analysis. Therefore, the potential value of long-term preservation of data is likely to become evident towards the end of the project as part of its legacy.

6. Data security

What provisions are in place for data security (including data recovery as well as secure storage and transfer of sensitive data)?

Data are collected and stored in the MOVING workspace (VRE). This repository is secured with Transport Level Security (TLS) that provides communications security over the computer network. It ensures privacy and data integrity between two communicating computer applications. In particular, any connections between a client (e.g., a web browser) and the MOVING workspace have the following properties:

- The connection is private (or secure) thanks to the adoption of the symmetric cryptography to encrypt the data transmitted. The keys for this symmetric encryption are generated uniquely for each connection and are based on a shared secret negotiated at the start of the session. The server and client negotiate the details of which encryption algorithm and cryptographic keys to use before the first byte of data is transmitted. The negotiation of a shared secret is both secure (the negotiated secret is unavailable to eavesdroppers and cannot be obtained, even by an attacker who places themselves in the middle of the connection) and reliable (no attacker can modify the communications during the negotiation without being detected);
- The identity of the communicating parties can be authenticated using public-key cryptography. This authentication can be made optional at client side, but is ensured at the server side;

- The connection ensures integrity because each message transmitted includes a message integrity check using a message authentication code to prevent undetected loss or alteration of the data during transmission;
- The connection ensures forward secrecy, ensuring that any future disclosure of encryption keys cannot be used to decrypt any TLS communications recorded in the past.

A backup and recovery strategy has been put in place to protect about data loss incidents that can take a variety of forms, but when it comes to a workspace technology, they generally fall into two categories: catastrophic failure and human error. Even if catastrophic failure includes natural disasters and any other scenario that permanently destroy all the server nodes most of the issues are generated by human error. Humans introduce application bugs or accidentally delete data. A bad code release that corrupts some or all of the production data is an unfortunate but common example. In the case of human error, the errors introduced will propagate automatically to the replicas, often within seconds.

The MOVING workspace provides continuous, online backup for data as a fully managed service. The service streams encrypted and compressed oplog data to a dedicated server so that a continuous backup is activated. By default, the MOVING workspace takes snapshots every 6 hours and oplog data is retained for 24 hours.

Is the data safely stored in certified repositories for long term preservation and curation?

Yes.

Data storage

Data will be stored on secure servers in the partner institutions and in the MOVING Virtual Research Environment (d4Science platform). Further details will be provided in the Data Management Plan.

Data breaches

Within MOVING, no data will be collected of a nature that would result in physical, material or non- material damage to natural persons such as loss of control over their personal data or limitation of their rights, discrimination, identity theft or fraud, financial loss, unauthorised reversal of pseudonymisation, damage to reputation, loss of confidentiality of personal data protected by professional secrecy or any other significant economic or social disadvantage to the natural person concerned in the case of a personal data breach.

Data destruction

Data will be kept in a form, which permits identification of data subjects for no longer than is necessary for the purposes for which the personal data are processed; personal data may be stored for longer periods insofar as the personal data will be processed solely for scientific research purposes or statistical purposes subject to implementation of the appropriate

technical and organisational measures required by the GDPR in order to safeguard the rights and freedoms of individuals ('storage limitation').

Research participants will be provided with clear information about data collection, processing, storage, breach and destruction in the information sheet and Consortium partners will gain the informed consent.

Transfer of Data

The information, including Personal Data, may be transferred from the original place of acquisition to — and maintained on — computers located outside of that state, province, country, or other governmental jurisdiction where the data protection laws may differ than those from the jurisdiction where the data was acquired.

Data protocols for surveys, interviews, and workshops

- Survey Data

The survey data will be anonymised so that personal identification will not be possible; it will then be analysed and the results will be integrated in the project reports. As most of the deliverables are public, they will be accessible via the project official website. Survey participants' answers will be treated confidentially so that personal identification will not be possible.

It should be noted that the surveys created for the relevant WPs do not require personal data.

- Interview Data

Interviews can be audio recorded and transcribed on a case-by-case basis. The partners who follow this audio recording and/or transcription will employ the line of action described below for MOVING specific interviews. In most cases, an analysis of content will be performed.

If interview recordings/transcripts will be realised, they will not be made open access, as the consortium cannot guarantee anonymity to the interviewees if full transcripts are published. Some interviews might be carried out in national languages, making it rather easy to identify the national background of the persons interviewed and, possibly, to identify the person herself. This risk is plausible, since the persons interviewed are experts from a certain field, so it is likely that interviews could at least be traced back to certain institutions. Due to such conditions, publishing recordings/transcripts could discourage interviewees from openly talking to the consortium, which certainly would affect the research.

- Workshop Data

Workshops will be organized to engage the sector's stakeholders, to understand the stakeholders' needs and expectations. Workshop group reflections could be recorded as a matter of convenience for analysis. Audio records will not be made open access.

7. Ethical aspects

As reported in the Grant Agreement, the main ethical issues for MOVING concerns Research involving Human beings and the Protection of Personal Data. All the internal procedures needed to assure the compliance with the requirements have been so far developed in Deliverable 9.1 “H - requirement No. 1” and in Deliverable 9.2 “POPD - Requirement No. 2”.

These two Deliverables further detail the procedures of information of research participants already included in the Grant Agreement, to guarantee that prior to the collection of any data, participants will be informed on the collection, processing and use of data provided and that contact persons of the Consortium will ensure that they give the consent (D.9.1).

Deliverable 9.2 “POPD – Requirement N.2”, due at month 6 of the Project, will report the confirmation of the appointment of a Data Protection Officer by the beneficiaries, as well as the organisational measures.

The responsibility for ensuring that the conduct of the research is in line with these principles rests with the relevant lead investigator in each case. Work Package 9 is responsible for the development of the processes and procedures for ethical clearance (including the development of an informed consent form) and Work Package 8 is responsible for the implementation and central project management of ethical clearance documentation.

Processing and handling of personal data is covered by Article 39 of the Grant Agreement, 39.1 for handling by the European Commission and 39.2 for handling by beneficiaries. No circumstances are foreseen that personal data will be transferred from project beneficiaries to the European Commission. If any such circumstance does arise then a Service Specific Privacy Statement (SSPS) will be downloaded from the European Commission website and the relevant requirements followed.

8. Other issues

Do you make use of other national/funder/sectorial/departmental procedures for data management? If yes, which ones?

No

9. Further support in developing your DMP

The Research Data Alliance provides a **Metadata Standards Directory** that can be searched for discipline-specific standards and associated tools. The EUDAT B2SHARE tool includes a built-in license wizard that facilitates the selection of an adequate license for research data.

Useful listings of repositories include:

- Registry of Research Data Repositories

- Some repositories like Zenodo (an OpenAIRE and CERN collaboration), allow researchers to deposit both publications and data, while providing tools to link them.
- Other useful tools include DMP online and platforms for making individual scientific observations available such as ScienceMatters.

ANNEX 1 – List of data items planned in the MOVING project

*Licence:

- CC B: lets others distribute, remix, tweak, and build upon MOVING work, even commercially, as long as they credit the project for the original creation
- CC BYSA: lets others remix, tweak, and build upon your work, even for commercial purposes, as long as they credit you and license their new creations under identical terms
- CC0: Public domain: CC0 enables authors and copyright owners to dedicate their works to the worldwide public domain ("no rights reserve)

Work package	Title of document/database	Type	Origin of data	Format	Availability	Target user	Licence*
WP1	Videos	Multimedia	Own production	Mp4, mov	Open after anonymisation	All MOVING target groups	CC0
WP1	Webinars	Multimedia	Own production	Mp4, mov	Open after anonymisation	All MOVING target groups	CC0
WP1	Podcasts	Multimedia	Own production	Mp4, mov	Open after anonymisation	All MOVING target groups	CC0
WP1	DECO strategy	Report file	Own production	Pdf	Open	MOVING Consortium	CC0
WP1	Communication guidelines	Report File	Own production	Pdf	Restricted	MOVING Consortium	
WP1	DECO activity Report	Report File	Own production	Pdf	Open	MOVING Consortium	CC0
WP1	Leaflet	Text file	Own production	Pdf	Open	All MOVING target groups	CC0
WP1	Newsletter	Text file	Own production	Pdf	Open	All MOVING target groups	CC0
WP1	MOVING CoP design and implementation report	Report File	Own production	Pdf	Open	All MOVING target groups	CC0
WP1	Youth Engagement Report	Report files	Own production	Pdf	Open	All MOVING target groups	CC BY

WP1	MOVING MOUNTAINS APP	Software	Own production	code	Open	All MOVING Target groups	CC BY
WP1	31 Practice Abstracts (M24)	Text file	Own production	Pdf	Open	All MOVING target groups	CC0
WP1	58 Practice Abstracts (M48)	Text file	Own production	Pdf	Open	All MOVING target groups	CC0
WP2	Conceptual and Analytical framework	Report file	Own production	Pdf	Open	MOVING Consortium	CC0
WP2	Policy Briefs	Text file	Own production	Pdf	Open	All MOVING target groups	CC0
WP3	Land use systems and land cover map in 23 the reference regions	Report file	Own production	Pdf	Restricted	Members of the consortium (including the Commission Services)	
WP3	Land use systems vulnerability matrixes and vulnerability maps for the 23 reference regions	Report file	Own production	Pdf	Open	All MOVING target groups	CC0
WP3	Tools for science-society-policy interfaces	Report file	Own production	Pdf	Open	All MOVING target groups	CC0
WP3	Spatial datasets	Numeric database	Own production	Spatial data formats (img; shp)	Open	All MOVING target groups	CC0
WP3	Summary of the indicators for the 23 RR	Numeric database	Own production	xlsx	Open	All MOVING target groups	CC0
WP4	Inventory of Mountain value chains	Report file	Own production	Pdf	Open	All MOVING target groups	CC BY
WP4	List of selected valuechains and relationship building	Report file	Own production	Pdf	Open	All MOVING target groups	CC BY

WP4	Report on participatory value chain analysis	Report files	Own production	Pdf	Restricted	Members of the consortium (including the Commission Services)	
WP4	Digital Stories for each Reference Region	Multimedia files	Own production	Mp4, mov	Open	All MOVING target groups	CC BY
WP4	Report on Vulnerability and Resilience Performance of 23 Reference Region Value Chains	Report files	Own production	Pdf	Open	All MOVING target groups	CC BY
WP4	Global Upgrading Strategy	Report files	Own production	Pdf	Open	All MOVING target groups	CC BY
WP4	31 Practice Abstracts (M32)	Text file	Own production	Pdf	Open	All MOVING target groups	CC BY
WP4	Voice records	Multimedia	Own elaboration	Mp4, mov	Restricted	Researchers	
WP4	Transcripts	Text file	Own elaboration	Pdf, doc, form	Restricted	Researchers	
WP5	Comparative cross-case report on Mountain Value Chains	Report File	Own production	Pdf	Open	All MOVING Target groups	CC0
WP5	Policy Briefs	Report File	Own production	Pdf	Open	All MOVING Target groups	CC0
WP6	Guidelines for the foresight exercise	Report File	Own production	Pdf	Restricted	Members of the consortium (including the Commission Services)	
WP6	Foresight report per reference region. Each partner working in the reference region	Report File	Own production	Pdf	Restricted	Members of the consortium (including the Commission Services)	
WP6	Synthesis report, including a Repertoire of Strategic Options	Report File	Own production	Pdf	Open	All MOVING target groups	CC0

WP6	Regional, Cross Regional and European H2050 agriculture scenarios description	Text file	Own production	Pdf	Open	All MOVING target groups	CC BYSA
WP6	Regional, Cross Regional and European H2050 agriculture scenarios data output	Numeric database	Own production	xlsx	Open	All MOVING target groups	CC BYSA
WP7	Policy Roadmap including the results of the Policy Audit and recommendations for a new generation of public policies and strategies for Europe's mountain areas	Report file	Own production	Pdf	Open	All MOVING target groups	CC0
WP7	Policy Audit & Policy Design Toolkit	Report files	Own production	Pdf	Open	All MOVING target groups	CC0
WP8	Data Management Plan	Report File	Own production	Pdf	Open	MOVING Consortium	CC0
WP8	Report of the Kick-Off Meeting	Report File	Own production	Pdf	Restricted	Members of the consortium (including the Commission Services)	
WP8	Handbook on management	Report File	Own production	Pdf, doc, excell	Restricted	Members of the consortium (including the Commission Services)	
WP8	Report of the Consortium Meeting (M7)	Report File	Own production	Pdf	Restricted	Members of the consortium (including the Commission Services)	
WP8	Report of the Consortium Meeting (M13)	Report File	Own production	Pdf	Restricted	Members of the consortium (including the Commission Services)	
WP8	Report of the Consortium Meeting (M19)	Report File	Own production	Pdf	Restricted	Members of the consortium (including the Commission Services)	

WP8	Report of the Consortium Meeting (M25)	Report File	Own production	Pdf	Restricted	Members of the consortium (including the Commission Services)	
WP8	Report of the Consortium Meeting (M31)	Report File	Own production	Pdf	Restricted	Members of the consortium (including the Commission Services)	
WP8	Report of the Cosortium Meeting (M37)	Report File	Own production	Pdf	Restricted	Members of the consortium (including the Commission Services)	
WP8	Report of the Consortium Meeting (M42)	Report File	Own production	Pdf	Restricted	Members of the consortium (including the Commission Services)	
WP8	Clustering and synergies with other EU projects	Report File	Own production	Pdf	Open	All MOVING Target groups	CC0
WP8	Report of the final Consortium Meeting	Report File	Own production	Pdf	Restricted	Members of the consortium (including the Commission Services)	
WP9	H - Requirement No. 1	Ethics	Own production	Pdf, doc, form	Restricted	Members of the consortium (including the Commission Services)	
WP9	POPD - Requirement No. 2	Ethics	Own production	Pdf, doc, form	Restricted	Members of the consortium (including the Commission Services)	