

# DATA MANAGEMENT PLAN

## BRAIN-BE 2.0

Contract - B2/202/P2/Climate2Preserv

*The present DMP form was designed for research projects. Some fields might not be applicable for particular projects. It is nevertheless requested to indicate all essential information that is relevant and applicable to the RI project.*

### FOREWORD

#### WHAT IS UNDERSTOOD AS RESEARCH DATA?

Research data are the evidence that underpin the answer to research questions and can be used to validate findings. Data can be quantitative information or qualitative statements collected by researchers in the course of their work by experimentation, observation, modelling, interview or other methods, or information derived from existing evidence.

For the purpose of BELSPO's data management policy, research data also includes digital information extracted from physical objects such as scientific and archaeological collections, physical arts works or biobanks.

Software is not included in the definition. BELSPO recognises that software (algorithms, scripts and codes developed by researchers in the course of their work) may be necessary to access and interpret data. In such cases, the data management plan needs to address how information about such items will be made available.

#### WHY IS A DATA MANAGEMENT PLAN NECESSARY?

Data Management Plans document and sustain a research project by explaining how it deals with copyright / open access requirements and ethical issues, and describe the plan for acquisition, long-term data preservation and sharing modes. They contribute to increasing the impact and visibility of research data, and ensure that the way handled data comply with the Open Data principle applied by BELSPO.

#### WHAT IS EXPECTED FROM THE DATA MANAGEMENT PLAN?

The Data Management Plan (DMP) should describe how a researcher **deal with the collected data before, during and after the project**. It is a key element of a good data management.

As part of making research data findable, accessible, interoperable and re-usable (**FAIR**), the DMP shall include information on:

- how the data will be collected,

- the type, size and format of the generated data,
- when, where and in what format the data will be made accessible
- how the data will be curated and preserved for ulterior use (including after the end of the project).

It will clearly specify which categories of users are likely to benefit from access to the data.

The DMP must also contain information regarding the legal and ethical aspects of data.

In this respect, researchers shall use to the maximum existing platforms having the highest standard of preservation, curation, deposit and reuse.

PROJECT ACRONYM	PROJECT
PROJECT TITLE	Climate2Preserv - Sustainable Climate Management Strategy to Preserve Federal Collections heritage in Crisis

#### 1. WILL DATA BE COLLECTED, REUSED AND/OR GENERATED?

Please select the adequate answer(s) taking into account the following concepts:

- *Data content:*  
Refers to the type of data regarding what it contains. E.g. numeric (databases, spread sheets), textual (documents), image, audio, video, mixed media...
- *Data format:*  
Refers to the technical format of data; to the way in which the data is encoded for storage, often reflected by the filename extension. For example: pdf, xls, doc, txt, rdf...  
Whenever possible, give preference to open and standard formats as they facilitate sharing and long-term re-use of data.
- *Data volume:*  
You may roughly estimate this using the following categories: From 0 – 10GB; From 10 – 100 GB; From 100 – 1000 GB; More than 1000 GB.

1.1. My project will...	<input checked="" type="checkbox"/> COLLECT DATA <input checked="" type="checkbox"/> REUSE EXISTING DATA <input checked="" type="checkbox"/> GENERATE NEW DATA
<i>Please describe:</i> <ul style="list-style-type: none"> <li>• Which data you will collect/reuse/generate</li> <li>• How data will be collected / from which source it will be reused / how will it be generated</li> <li>• Its content, technical format and estimated volume.</li> <li>• Any existing constraints regarding its use.</li> </ul>	
<b>CLIMATE AND ENERGY MONITORING DATA</b> — Historic and current energy use and indoor climate data collected from three case study partners (KMSKB-MRBAB, Wiertz Museum, CINEMATEK)	

- Collection methods:
  - > Standalone data loggers: downloaded manually and exported to CSV files
  - > Online data loggers: accessed via CHARP Art Care platform
  - > KNX modules at KMSKB-MRBAB: transmitted via LoRaWAN gateway to CHARP Art Care
- Data frequency: predominantly hourly measurements, with some daily and monthly granularity
- Period: March 2021 - December 2025

#### **METADATA**

- Information on collections (materials, condition, value)
- Buildings (type, history, envelope performance)
- Technical systems (HVAC components, control strategies, energy systems)
- Contextual information enables interpretation of monitoring data

#### **MODELING DATA**

- Analysis outputs from CEAM (Climate and Energy Assessment Model) software
- Energy predictions, climate class assessments, optimization scenarios, statistical analyses
- CEAM generates processed data files, graphical outputs, and text reports

#### **SOFTWARE**

- CEAM software: open-source Python scripts (version 1.2.2)
- 6 modules with 26 scripts total
- Performs data quality verification, climate and energy analysis, energy optimization predictions

#### **DOCUMENTATION**

- Climate2Preserv Handbook
- Decision flowchart poster
- Measurement plan template
- Testing protocol templates
- Facility assessment tools

#### **PUBLICATIONS**

- Scientific articles
- Conference presentations
- Technical reports

#### **DATA FORMATS**

- Climate/energy data: CSV, TXT
- Documentation: DOCX, PDF
- Images/visualizations: PNG, JPG
- Software: Python (.py)

**DATA VOLUME:** Approximately 10-100 GB total across project period

## **2. HOW WILL YOU HANDLE LEGAL ISSUES?**

**CONSTRAINTS:** Case study data contains potentially sensitive information regarding institutional infrastructure, collections, and policies. Test case partners retain decision rights regarding disclosure and public availability of their specific monitoring data.

Please answer the following statements taking into account the following concepts:

*Legal issues: This includes personal data and intellectual property issues.*

*Regarding personal data, you must ensure when dealing with personal data that Data Protection Laws (i.e. GDPR) are complied with.*

2.1. My project will use / process / store <b>personal data</b> :	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<i>If your answer is 'YES': shortly describe the kind of personal data. Add the process and reference to your file in your host institution's privacy register.</i>	
The project stores only names and email addresses of: - Project partners - Follow-up committee members who use Climate2Preserv resources  This information is used solely for: - Communication with Belpo - Internal project communication - May only be mentioned on project website after written consent	
2.2. The work undertaken in the project will possibly result in <b>research data</b> with potential for <b>technology transfer</b> and <b>valorisation</b> :	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<i>If your answer is 'YES', your project must take into account possible intellectual property issues. Explain who will be the owner of the data (who will have the rights to control access). Indicate whether there will be intellectual property rights/restrictions for the data you created, and if applicable, describe how these will be managed.</i>	
<b>KU LEUVEN</b> KU Leuven's Building Physics Section developed CHARP Art Care software prior to the project. Existing features (sensor integrations, data charts, projects, analysis workflows, file uploads, notes, notifications) constitute KU Leuven's background intellectual property.  <b>KU LEUVEN FOREGROUND</b> Additional features built to support Climate2Preserv (CEAM analytical modules, specific assessment workflows, structured metadata collection) constitute foreground developed by KU Leuven.  <b>OPEN SOURCE COMMITMENT</b> CEAM software is released as open-source under MIT license to promote transparency, enable peer review, and facilitate adaptation to diverse institutional contexts. Python scripts, exemplary input files, and user manuals are available at GitHub repository.  <b>COPYRIGHT CONSIDERATIONS</b> The Climate2Preserv Handbook references published scientific literature and established directives. Some referenced materials are copyrighted (e.g., ASHRAE standards). The project uses these references appropriately within fair use guidelines.  <b>DATA OWNERSHIP</b> Test case partners (KMSKB-MRBAB, Wiertz Museum, CINEMATEK) retain ownership of their specific monitoring data and decide what portions may be made publicly available. Research results and methodology generated by the project are owned by the project partners collectively.	
2.3. Will agreements with 3rd parties restrict the dissemination or exploitation of the data the project will (re)use:	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

*If your answer is 'YES': explain which data are affected by this agreement  
State the restrictions that are in place.*

No third-party agreements restrict dissemination. However, test case providers maintain control over their institutional data through informed consent procedures. In all publications, elements that may lead to identification of individual test cases are excluded.

Please answer the questions/statements, taking into account the following information:

3. HO

*Data must comply, as much as possible with FAIR principles; it must be findable, accessible, interoperable and reusable. For this purpose, data must be accompanied by descriptive information in the form of metadata. Metadata is the information that describes, explains, locates, and /or makes the use of an information source easier to retrieve. Where metadata are in place, researchers are advised to use and mention metadata standards.*

### 3.1. What documentation will be provided to enable understanding and reuse of the data collected / generated in this project?

Documentation to enable understanding and reuse of collected data is an essential part of the project. The building and its services, collection, and monitoring data are documented following structures that are intuitive and intended to be shared among stakeholders.

The documentation that enables understanding and reuse of the data collected and generated in the project follows the internal standards and organizational logic of KIK-IRPA's archival system. All digital datasets, including photographs, scientific imagery, analytical results, climate data, condition reports, and publications, are structured and stored according to the workflows and archiving protocols already established at KIK-IRPA. No additional metadata or standardized external documentation will be created; instead, the digital archive itself will ensure the data are organized, retrievable, and interpretable for internal reuse and long-term preservation.

#### **NAMING CONVENTIONS**

Files follow KIK-IRPA institutional standards:

- Structure: YYYYMMDD\_subject\_details\_contributor (ISO 8601 date format)
- Example: 20220314\_KMSKB\_SystemComponents\_AHU03\_ULg
- Maximum 31 characters (ISO-9660 standard)
- Use underscores [ \_ ] instead of spaces
- Use leading 0 for numbers 1-9 - Version control: add 'v' and number (e.g., filename\_v01, filename\_v02)
- Language codes when applicable: FR, NL, EN (ISO 639-1)
- Names must be clear, meaningful, and allow understanding of content without opening the file

#### **FOLDER STRUCTURE**

- Organized logically and hierarchically, from general to specific
- Cell-specific folder structures developed in consultation with end users
- Strict adherence to approved structure required
- Changes to folder structure reported to data manager
- README files explain naming conventions, file types, and folder contents
- Each case study has folders for: Data, Images, Reports, Floor plans, Resources, Workshop materials

#### **SENSOR DOCUMENTATION**

- Sensor directories document: types, locations, installation dates, measurement frequencies, calibration requirements, responsible personnel
- Floor plans indicate physical sensor locations

#### LOGBOOKS

- Digital notebooks maintained by stakeholders
- Document events impacting data: system maintenance, equipment failures, modifications, environmental conditions
- Each entry includes: date, description, responsible party

#### CHARP ART CARE DOCUMENTATION

- Context-dependent documentation accessible via interface
- Notes can reference specific dates, time periods, sensors, analyses, or projects
- Images and files can be appended (floor plans, system diagrams, etc.)

#### CEAM DOCUMENTATION

- Comprehensive manuals describe: input file requirements, data structure, module functionality, calculation methods, result interpretation
- Quick start guides and YouTube tutorials

#### METADATA STRUCTURE

Every continuous dataset includes:

- Units with appropriate decimal separators
- Timestamps in consistent format (default: dd.mm.yyyy HH:MM)
- Time zone information (UTC vs local time)
- Sample time/frequency
- Variable definitions in column headers

**DATA ANOMALIES:** Missing values, error messages, and outliers documented in logbooks and identified during quality control.

3.2. Metadata standards will be used:

- FOR ALL DATA  
 FOR SOME DATA  
 FOR NONE OF THE DATA

- *if your answer is 'for all data' or 'for some data', please describe in detail which standards will be used.*
- *if your answer is 'none of the data', please state in detail which metadata will be created to make the data easy/easier to find and reuse.*

Most data generated within the project will be documented using KIK-IRPA's institutional archiving and documentation practices. Metadata will be created through the consistent use of the dossier-based structure, including dossier numbering, structured folder hierarchies, descriptive file names, and embedded documentation (e.g. spreadsheets, image annotations, laboratory notes). Where applicable, metadata will also be recorded in Adlib (Axiell), which provides a durable institutional record of the research activities and aligns with several recognised metadata standards (including Spectrum, ISAD(G), Dublin Core, and LIDO). This combined approach ensures that all data remain findable, understandable, and reusable over the long term, and supports future interoperability and delivery to systems such as BALaT+

#### 4. DATA STORAGE AND BACKUP DURING THE PROJECT

Please answer the statements/questions, taking into account the following information. Note that you may choose one or more answers to statement 4.1.

*Please give preference to the use of robust, managed storage with automatic backup, such as provided by IT support services of your home institution. Most research institutions have networked drives, which offer ample storage space and data security for most purposes.*

*Consider data protection, particularly if your data is sensitive – for example, containing personal data, politically sensitive information or information relating to religion and health. If this is your case, enquire with your institution's research support staff whether your intended storage solution meets your institution's data security policy.*

4.1. The data will be stored in...	<input type="checkbox"/> Institution Networked Research Storage <input checked="" type="checkbox"/> OTHER
<p><i>If your answer includes 'OTHER':</i></p> <ul style="list-style-type: none"> <li>• <i>Specify which storage solutions you will use during the project, in addition to / instead of the institutional networked research storage.</i></li> <li>• <i>Explain the reasons for using these solutions. E.g. because you need more space than offered by your institution; to facilitate data sharing with collaborators; or because your data requires additional security.</i></li> </ul>	
<p>Final data will only be saved on the Institution Networked Research Storage</p> <p><b>Other include:</b></p> <ul style="list-style-type: none"> <li>— <b>Google Drive:</b> General project documents, case study files, reports, meeting minutes, working documents stored in organized folder structure. Facilitates data sharing with collaborators and provides adequate storage capacity.</li> <li>— <b>Charp Art Care:</b> Climate and energy monitoring data collected throughout the project stored in CHARP Art Care platform. Data accessed via: - Real-time connection between on-site gateways and platform - Manual uploads of data retrieved from standalone loggers</li> <li>— <b>Github;</b> CEAM software scripts and code stored in GitHub repository at <a href="https://github.com/Climate2Preserv">https://github.com/Climate2Preserv</a>, providing version control and collaborative development capabilities.</li> <li>— <b>KU Leuven institutional storage:</b> KU Leuven provides networked research storage with institutional backup systems for project-related data management.</li> </ul>	
4.2. How will the data be backed up?	
<p><b>GOOGLE DRIVE DATA</b> Monthly backup of Google Drive documents to KIK-IRPA FileServer.</p> <p><b>KIK-IRPA FILESERVER BACKUP</b> All final data will be stored on KIK-IRPA secure servers and protected shared drives. The data is stored on a production NetApp system and replicated to a backup NetApp system in accordance with the GFS (Grandfather–Father–Son) backup principle. To clearly separate the operating system from the file system, the data from the production NetApp is also copied to a production TrueNAS server, which in turn replicates to a backup TrueNAS server. All production and backup servers perform scheduled snapshots of the data. Both backup servers are located off-site at another institute and synchronize over a point-to-point connection on the BELNET ScienceMAN3 network. Daily automated backups and off-site redundancy ensure data safety, while physical samples are stored in designated laboratories with controlled access to maintain their security and integrity.</p> <p><b>CHARP ART CARE DATA</b> Data collected on CHARP server follows the platform's backup procedures.</p> <p><b>GITHUB REPOSITORY</b></p>	

Version control through Git provides inherent backup and recovery capabilities for all software code.	
4.3. How will data security and protection of sensitive data be taken care of during the research?	<input type="checkbox"/> Not applicable (there are no sensitive data) <input checked="" type="checkbox"/> Default security of the institution networked research storage <input type="checkbox"/> Additional security measures
<i>If your answer is <b>other than 'Not applicable'</b>: Describe the main risks and how these will be managed.</i>	
<b>Security measures:</b> — KIK-IRPA FileServer with institutional security protocols — Access control through institutional authentication — Regular backups to multiple locations (on-site and off-site) — Case study data access restricted to project partners during project — Test case partners control access to their data after project  <b>Main risks and management:</b> — Hardware failure: mitigated by daily backups to multiple servers — Human error (accidental deletion/overwrite): mitigated by backup retention, immediate reporting to IT required - Unauthorized access to sensitive institutional data: mitigated by access controls, test case partners retain decision rights	
4.4. What are the expected costs for data storage and backup during the project? How will these costs be covered?	
<i>Costs related to data storage and backup during the project can be covered by the project budget providing these are fully justified and relate to the project.</i>	
Costs covered by institutional partners: — <b>KIK-IRPA:</b> FileServer and backup infrastructure — <b>KU Leuven:</b> Institutional networked storage — <b>GitHub:</b> No direct cost (free for public repositories) No additional project budget required for data storage and backup.	

## 5. DATA PRESERVATION IN THE LONG TERM - AFTER THE PROJECT

Please answer the following questions/statements, taking into account the following information. Note that you may choose one or more answers to statement 5.2.

*BELSPO expects the data generated during the project to be preserved (archived) in the long term, in as far as legal and contractual agreements allow. As rule of thumb, long-term storage is considered to be at least 10 years, unless legal provisions or discipline-specific guidelines dictate otherwise.*

5.1. All data will be preserved in the long term (at least 10 years)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<i>If your answer is 'NO': clearly describe what data will be preserved long-term and what data will be destroyed for contractual, legal or regulatory purposes, or for physical preservation issues. Indicate how you will decide which data to keep.</i>	
Not all data will be preserved for 10+ years. Selection based on value for future research, methodology replication, and sector capacity building:	
<b>DATA PRESERVED LONG-TERM (10+ years)</b>	

- CEAM software and documentation (indefinitely on GitHub)
- enables methodology replication)
- Project deliverables: Handbook, templates, protocols (via project website and KIK-IRPA institutional archives)
- Scientific publications (open access or self-archived)
- Exemplary datasets for training and software testing

**DATA WITH LIMITED RETENTION**

- Case study monitoring data: retained according to KIK-IRPA institutional protocols and test case partner decisions
- Project working documents: retained according to KIK-IRPA institutional archiving protocols
- Interim working documents: retained selectively based on institutional protocols

**DATA NOT PRESERVED**

- Temporary analysis files generated by CEAM during processing
- Duplicate versions of documents
- Correspondence and routine administrative materials

5.2. The data will be archived within...	<input type="checkbox"/> Institution Networked Research Storage <input checked="" type="checkbox"/> OTHER
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*If your answer includes 'OTHER': Specify which storage solutions you will use in the long term, in addition to/instead of the institutional networked research storage. Please explain the reasons for using these solutions.*

Most information will be archived on the Institutions Networked Research Storage

Others include:

- **GitHub:** CEAM software archived on GitHub repository (<https://github.com/Climate2Preserv>) under MIT license. GitHub provides long-term preservation with version control, public accessibility, and community maintenance capabilities appropriate for open-source software.
- **Project website (KIK-IRPA):** Project deliverables archived and made publicly accessible via project website (<https://www.climate2preserv.be/>) hosted by KIK-IRPA. Website ensures long-term public access to methodology and tools.
- **Charp platform:** Monitoring data archived according to CHARP platform retention policies.
- **Institutional repositories:** Scientific publications archived in institutional repositories according to open access principles. [Click here to enter text.](#)

5.3. How will data security and protection of sensitive data be taken care in the long term?	<input type="checkbox"/> Not applicable (there are no sensitive data) <input checked="" type="checkbox"/> Default security of the institution networked research storage <input type="checkbox"/> Additional security measures
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*If your answer is other than 'Not applicable': Describe the main risks and how these will be managed. Inquire with your institution's research support staff whether your intended storage solution meets your institution's data security policy if your research involves sensitive data.*

PUBLICLY ACCESSIBLE DATA (CEAM software, deliverables): No security restrictions, data intended for public access and reuse.

**CASE STUDY DATA (if retained)**

- Institutional security protocols apply (KIK-IRPA FileServer, CHARP platform)
- Access controlled by test case partners
- Test case partners determine who may access their institutional data - Sensitive information about infrastructure, collections, and policies remains under partner control

**MAIN RISKS AND MANAGEMENT**

- Unauthorized access to institutional data: mitigated by access controls and institutional security protocols
- Data loss: mitigated by institutional backup procedures and multiple archive locations
- Technology obsolescence: mitigated by using standard formats (CSV, PDF, Python scripts) and comprehensive documentation

5.4. What are the expected costs for data preservation in the long term?  
How will these costs be covered?

*Costs related to data preservation in the long term can be covered by the project budget providing these are fully justified and relate to the project.*

- **GitHub:** No cost (free for public repositories)
- **Project website:** Covered by KIK-IRPA institutional resources
- **Institutional archives:** Covered by KIK-IRPA institutional budget No additional project budget required for long-term data preservation. Note: Costs related to data preservation in the long term can be covered by the project budget providing these are fully justified and relate to the project

## 6. DATA SHARING AND REUSE

Please answer the following questions taking into account the following information:

*As stated before, data must comply, as much as possible with FAIR principles; it must be findable, accessible, interoperable and reusable. It is thus important that you provide information regarding data sharing and reuse.*

*Data sets will be linked to the scientific publication they underpin and which have either been deposited in, or linked to Orfeo, BELSPO's central Open Access Repository for publications.*

*Note that the data available for sharing and reuse may differ from the preserved data, since there may be legal, IP, privacy or security related reasons preventing or restricting the access to data, or lacking of space for large data volumes to deposit them in a repository in its entirety. This could be the case for part or the entirety of data; in the short, mid or long term. For data requiring protection, BELSPO therefore observes the "as open as possible, as closed as necessary" principle. A staged approach will provide access for communities of certified users, adapting the degree of certification of users to the sensitivity of the data.*

6.1. Are there any factors restricting or preventing the sharing or reuse of the data (e.g. agreements with 3rd parties):  YES  NO

*If your answer is 'YES': explain which data are affected by this agreement.  
State the restrictions that are in place.*

**Yes, there are some factors to consider, but no formal restrictions are currently in place.**

All data generated by the project are owned by KIK-IRPA. Some of these data were created in collaboration with external partners, who are explicitly named in the deliverables. While no formal agreements or licensing arrangements are in place at this stage, any future reuse of these collaborative data or deliverables would require contacting the relevant partners to obtain their consent.

No restrictions apply to data generated solely by KIK-IRPA, which can be shared and reused in accordance with institutional policies.

6.2. Which data will be made available to the public?  ALL

		<input checked="" type="checkbox"/> SOME PART <input type="checkbox"/> NONE
<p><i>If your answer is 'SOME PART' or 'NONE':</i></p> <ul style="list-style-type: none"> <li>• Indicate the restrictions on the sharing of the data (why can't it be shared)</li> <li>• Explain what data sharing agreement will be implemented</li> <li>• Explain what actions will be taken to overcome or to minimise restrictions.</li> </ul>		
<p><b>MADE PUBLICLY AVAILABLE</b></p> <ul style="list-style-type: none"> <li>— CEAM software (open source on GitHub)</li> <li>— Project deliverables (Handbook, templates, protocols) on project website</li> <li>— Scientific publications (open access or self-archived)</li> <li>— General project results and methodology</li> </ul> <p><b>RESTRICTED OR NOT AVAILABLE</b></p> <p>Case study monitoring data containing potentially sensitive information about infrastructure, collections, and institutional policies. Test case partners decide which portions, if any, may be made public.</p> <p><b>RESTRICTIONS EXPLAINED</b></p> <p>The quantitative and qualitative case study data might include sensitive information regarding infrastructure, collections, and policy of the test case partners. During and after the project, they decide which part of the data they wish to make available to the public. This only concerns data directly related to their institutions and does not include general research results generated in the project.</p>		
6.3. Where/how will data be made available to the public?	<input type="checkbox"/> Open Access repository <input checked="" type="checkbox"/> In a restricted access repository <input checked="" type="checkbox"/> Upon request by mail <input type="checkbox"/> Other (specify)	
<p><i>If your answer is other than 'Open Access repository': Indicate where and how access will be provided.</i></p> <p>The deliverables will be publicly shared on the KIK-IRPA website and Github. Other data will be stored in KIK-IRPA's internal archives and will be accessible upon request. While the data are not currently hosted in an open-access repository, future publication on such a platform may be considered.</p>		
6.4. When will data be made available to the public?	<input checked="" type="checkbox"/> As soon as corresponding communication(s) are published <input type="checkbox"/> After the project is finished <input type="checkbox"/> After the completion of the project (with embargo)	
<p><i>If your answer is other than 'as soon as corresponding communication(s) are published': Indicate the reasons for the restrictions on the time release of data (embargo periods). For example, to publish, protect intellectual properties, or seek patents.</i></p>		
<p>6.5. Who will be able to access the data and under which conditions?</p> <p><b>DURING PROJECT</b></p> <p>Project partners access data in the framework of their contributions to the project. Each partner has appropriate access rights to data relevant to their work packages.</p> <p><b>AFTER PROJECT</b></p> <p>Test case partners decide what part of their monitoring data can be accessed by whom and under what conditions. Public deliverables (software, handbook, templates) accessible to anyone without restrictions.</p>		

6.6. Which data will be made available for re-use?	<input type="checkbox"/> ALL <input checked="" type="checkbox"/> SOME PART <input type="checkbox"/> NONE
<i>If your answer is 'SOME PART' or 'NONE': Indicate the restrictions on the re-use of the data. Explain what actions could be taken to overcome or to minimise restrictions.</i>	
<b>AVAILABLE FOR REUSE</b> — CEAM software and code (MIT license) — Project methodology and deliverables — Published research results  <b>RESTRICTED REUSE:</b> Case study monitoring data (test case partners decide) The quantitative and qualitative data might include sensitive information with regard to infrastructure, collections, and policy of the test case partners. During and after the project, they decide which part of the data they wish to make available. This only concerns data directly related to their institutions and does not include research results generated in the project.	
6.7. Under what license will be data shared for re-use?	<input type="checkbox"/> Creative Commons CCO <input checked="" type="checkbox"/> Creative Commons CC-BY <input checked="" type="checkbox"/> Other (specify)
<i>If your answer is 'OTHER' : Indicate which license will the data have for reuse, and why.</i>	
<b>CEAM SOFTWARE:</b> MIT license (permissive open-source license) <b>PROJECT DELIVERABLES AND PUBLICATIONS:</b> Creative Commons CC-BY	
6.8. What are the expected costs for data sharing? How will these costs be covered?	
<i>Costs related to data sharing can be covered by the project budget providing these are fully justified and relate to the project.</i>	
No expected costs	

## 7. RESPONSIBILITIES

Please answer the following questions/statements, taking into account the following information:

7.1. Who will be responsible for the data documentation & metadata?
<i>In case of the use of personal data, please note the name and contact data of the concerned data protection officers.</i>
Marcin Zygmont, KU Leuven <a href="mailto:marcin.zygmunt@kuleuven.be">marcin.zygmunt@kuleuven.be</a>
<b>RESPONSIBILITIES</b> — Ensuring data quality management — Providing data documentation — Ensuring proper means for collecting quality data — Coordinating metadata documentation across case studies
7.2. Who will be responsible for data storage & back up during the project?
— KU Leuven coordinates data storage and backup procedures. — KIK-IRPA provides backup services for Google Drive data. — CHARP platform manages backup for monitoring data collected through that system.
7.3. Who will be responsible for ensuring data preservation and sharing?
— KU Leuven ensures preservation of CEAM software on GitHub and coordinates overall data preservation strategy.

- KIK-IRPA ensures preservation and accessibility of project deliverables through project website and institutional archiving protocols.
- Test case partners responsible for long-term preservation decisions regarding their specific monitoring data.

#### 7.4. Who bears the end responsibility for updating & implementing this DMP?

*Default response: The Principal Investigator (PI) bears the overall responsibility for updating & implementing this DMP.*

KU Leuven, as the coordinating institution for data management activities, bears overall responsibility for updating and implementing this Data Management Plan.