INITIATE

D7.3 Mid-Term version of Data Management Plan (DMP)

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Glossary:

Acronym	Full name
CA	Consortium Agreement
D	Deliverable
DEMP	Data and Ethics Management Plan
D&C	Dissemination and Communication
EC	European Commission
EU	European Union
GA	General Assembly
GDPR	General Data Protection Regulation
IP	Intellectual Property
IPR	Intellectual Property Rights
KER	Key Exploitable Result
KPI	Key Performance Indicators
MS	Milestone
PC	Project Coordinator
PERT	Program Evaluation and Review Technique
PO	Project Officer
PQMP	Project Quality Management Plan
R&I	Research and Innovation
R&D	Research and Development
R&D&I	Research and Development and Innovation
SMEs	Small and Medium-Sized Enterprises
SWOT	Strengths, Weaknesses, Opportunities, and Threats
ToC	Table of Contents
TRL	Technology Readiness Levels
UC	University Consortium
WBS	Work Breakdown Structure
WP	Work Package
M&E	Monitoring and Evaluation

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Executive Summary

This Mid-Term Data Management Plan (D7.3) provides an updated overview of how data is handled within the INITIATE project, reflecting developments since the initial DMP (D7.2). It outlines the current practices for generating, using, processing, curating, and preserving data across the project's work packages, with a focus on ensuring compliance with EU regulations, ethical standards, and Horizon Europe's open science principles.

Since the submission of D7.2, the consortium has moved from planning to implementation. Data collection methods have been refined through pilot activities and stakeholder engagement, and metadata standards have been streamlined to support consistency and findability. The INITIATE Knowledge Base, developed under WP2 and WP3, now serves as the central repository for structured datasets, supported by clear versioning, access control, and documentation procedures.

The project continues to apply the FAIR principles—Findability, Accessibility, Interoperability, and Reusability—across all data workflows. Public datasets and deliverables are made openly available through the project website and relevant repositories, while sensitive data is protected through pseudonymisation and secure storage. The Data & Ethics Committee, established under WP7, monitors compliance and supports partners in applying ethical and legal safeguards, particularly in relation to GDPR.

This deliverable also identifies key challenges encountered during the first half of the project, such as harmonising data formats and managing access to sensitive information. In response, the consortium has introduced practical tools, clearer responsibilities, and regular monitoring mechanisms. These improvements lay the groundwork for the final DMP (D7.4), which will consolidate all data-related activities and ensure long-term preservation and accessibility of INITIATE's research outputs.

D7.3 reaffirms the consortium's commitment to responsible, transparent, and high-quality data management, supporting the project's broader goals of institutional transformation and stakeholder-driven innovation in the green energy transition.

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1. Introduction

The Mid-Term Data Management Plan (DMP), depicted here in D7.3, provides an updated and consolidated overview of data-related practices within the INITIATE project. Building upon the foundations laid in D7.2, this version reflects the progress made during the first half of the project and outlines refinements in data handling procedures, governance, and compliance mechanisms, as well as plans for future data management in the second half of the project. The final data management plan will be presented in D7.4 in M42.

As a living document, the DMP evolves in response to project developments, stakeholder engagement, and regulatory updates. D7.3 captures the current state of data management across all work packages, ensuring that the consortium continues to uphold the principles of responsible research and innovation, particularly in relation to the FAIR data principles and open science mandates of Horizon Europe.

This deliverable is structured around the full lifecycle of data within INITIATE—from generation and use to processing, curation, and preservation. It also integrates updates on ethical and legal compliance, data governance, and resource allocation, while anticipating future needs and improvements to be addressed in the final DMP (D7.4).

1.1. Purpose of the Mid-Term DMP

The Mid-Term Data Management Plan (DMP) serves as a critical update to the initial strategy outlined in D7.2, reflecting the progress made during the first half of the INITIATE project. Its primary purpose is to consolidate and refine the consortium's approach to data governance, ensuring that all practices remain aligned with the evolving regulatory landscape, ethical standards, and Horizon Europe requirements. This version captures the current state of data handling across the project, including collection, processing, sharing, and preservation, while reinforcing the commitment to the FAIR principles—Findability, Accessibility, Interoperability, and Reusability.

By documenting the procedures and responsibilities adopted by consortium partners, the Mid-Term DMP promotes transparency, accountability, and secure data stewardship. It also addresses the integration of stakeholder feedback, technical developments, and lessons

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learned from pilot activities and cross-sector collaboration. Importantly, this deliverable lays the groundwork for the final DMP (D7.4), identifying areas for improvement and outlining the next steps toward a comprehensive and sustainable data management framework that will support the long-term impact of INITIATE.

1.2. Scope and relevance within INITIATE

The Mid-Term Data Management Plan (DMP) plays a pivotal role in ensuring that the INITIATE project maintains a coherent, transparent, and ethically sound approach to data governance. As the project enters its second phase, D7.3 provides a structured overview of how data is currently being generated, processed, and curated across all work packages, including pilot activities and stakeholder engagement. It reflects the evolving needs of the consortium and supports the integration of technical, legal, and ethical dimensions into data handling practices.

This deliverable is particularly relevant for monitoring compliance with Horizon Europe's open science and FAIR data mandates, as well as for guiding partners in the responsible use of sensitive and personal data. It serves as a reference point for internal coordination and external accountability, ensuring that all data-related activities contribute to the long-term impact and sustainability of INITIATE's research outputs.

1.3. Relation to previous and future DMP deliverables (D7.2 & D7.4)

D7.3 builds directly upon the initial Data Management Plan (D7.2), which established the foundational principles, procedures, and responsibilities for data handling within INITIATE. While D7.2 focused on outlining the intended strategy and anticipated data flows, D7.3 provides a mid-term review of actual practices, updates, and refinements based on project progress and stakeholder feedback.

This deliverable also serves as a bridge to the final DMP (D7.4), which will be submitted at the end of the project. D7.4 will consolidate all learnings, document final datasets and repositories, and outline post-project data preservation strategies. Together, these three deliverables form a continuous and adaptive data governance framework that evolves in

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step with the project's lifecycle and its commitment to open, inclusive, and responsible research.

2. Overview of Data in INITIATE

This chapter provides a consolidated overview of the types of data collected, generated, and managed within the INITIATE project, as well as the lifecycle stages and data flows across work packages. It reflects the evolving scope of data activities since the initial DMP (D7.2), incorporating updates from pilot sites, stakeholder engagement, and technical development.

2.1. Types and sources of data

INITIATE handles a diverse range of data types, including technical, environmental, social, legal, and financial datasets. These originate from multiple sources:

- **Existing databases and literature** from previous R&I projects and public repositories
- **Stakeholder inputs**, including surveys, interviews, and co-creation workshops
- **Pilot site activities**, generating real-world data for demonstration and validation
- **Project outputs**, such as deliverables, presentations, and dissemination materials

Data formats include structured tabular data (e.g., .xlsx, .csv), textual documents (.docx, .pdf), multimedia files (.jpg, .mp4, .flac), and code repositories (.py, .ipynb). All data is documented and stored in accordance with metadata standards and GDPR requirements.

2.2. Data lifecycle stages: generation, use, processing, curation, preservation

The INITIATE consortium follows a structured approach to data management across five key lifecycle stages:

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- **Generation**: Data is collected through stakeholder engagement, pilot demonstrations, and literature review. Initial datasets are defined and documented in WP2 and WP5.
- **Use**: Data is actively used across work packages for model development (WP3), policy analysis (WP4), and impact assessment (WP6).
- **Processing**: Data undergoes anonymization, transformation, and integration into the INITIATE Knowledge Base and online tools.
- **Curation**: Quality assurance procedures ensure data accuracy, completeness, and consistency. Versioning and traceability are maintained via SharePoint and GitHub.
- **Preservation**: Long-term storage strategies are implemented to ensure accessibility and sustainability beyond the project duration, including open access repositories and backups.

2.3. Data flow across work packages

Data flows dynamically across INITIATE's work packages, enabling cross-functional collaboration and iterative development:

- WP2 defines the technical and stakeholder-driven data requirements
- WP3 integrates data into models and tools for institutional transformation
- WP4 uses curated datasets to inform policy recommendations
- WP5 validates data through pilot demonstrations
- WP6 assesses the impact of data-driven interventions
- WP7 oversees data governance, ethics, and compliance

This interconnected flow ensures that data is not only used effectively but also contributes to the broader goals of transparency, reproducibility, and societal relevance.

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2.4. Overview of Data Handling by Work Package

Data handling in INITIATE is distributed across work packages, each contributing to different stages of the data lifecycle—from collection and generation to processing, analysis, and preservation. This section provides a detailed overview of how data is managed within each WP, including the types of data involved, the tools and protocols used, and the governance measures in place. Below is a brief overview of how data has been handled across WPs and summary of this overview is depicted in Annex 1 of this deliverable.

WP1 – Stakeholder Engagement and Scientific Excellence Mapping

WP1 focuses on understanding the drivers and conditions for raising scientific excellence in European universities, particularly in the context of the green transition and digitalisation. Data collected under WP1 includes stakeholder surveys, interviews, workshop outputs, and meeting notes. These materials are used to map institutional needs, identify barriers to competitiveness, and support knowledge circulation among higher education and regional actors. All data collection activities are conducted with informed consent and follow GDPR-compliant procedures. Responses are anonymised and stored in structured formats on the internal SharePoint, with access restricted to authorised partners. The engagement methodology developed in Task 1.2 also informs WP4 and WP6, ensuring that stakeholder insights are reused across the project.

WP2 – INITIATE Approach and Knowledge Base Structuring

WP2 defines the INITIATE transformation approach for higher education institutions, with a focus on Widening countries. It plays a central role in structuring the project's technical and strategic data. Under Tasks 2.1 to 2.3, WP2 identifies relevant datasets from previous R&I projects, develops sectoral data templates, and builds the INITIATE Knowledge Base. This repository serves as the main hub for storing and accessing project data, including inputs from WP1 and WP5. WP2 also leads the development of metadata standards, ingestion protocols, and versioning rules. These tools ensure that datasets are consistently

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documented, interoperable, and reusable. WP2 coordinates closely with WP3 and WP7 to maintain data quality and compliance.

WP3 – Knowledge Hub and Capacity Building

WP3 focuses on empowering diverse stakeholder groups—including policy makers, energy experts, public officers, and vulnerable communities—with the knowledge and tools needed to navigate energy transition and digitalisation. Its data-related activities centre on curating, structuring, and presenting information in accessible formats through the INITIATE Knowledge Hub. Rather than generating raw data, WP3 builds on inputs from WP1 (stakeholder engagement), WP2 (technical structuring), and WP5 (pilot demonstrations) to develop training materials, visualisations, and interactive tools. These outputs are designed to support capacity building and informed decision-making. The Knowledge Hub integrates datasets, policy insights, and user-friendly interfaces, ensuring that complex information is translated into actionable knowledge. WP3 also contributes to FAIR implementation by ensuring that curated content is findable and reusable. Metadata and versioning are applied to all resources uploaded to the Hub, and accessibility features are embedded to support inclusive use—particularly for groups such as persons with disabilities and non-native speakers. Training modules and visual tools are stored on the INITIATE website and GitHub, with selected materials also prepared for open access repositories. In terms of governance, WP3 coordinates with WP7 to ensure that all content respects licensing, privacy, and ethical standards. It also supports WP4 and WP6 by providing structured outputs for policy analysis and impact assessment.

WP4 – Co-Design and Policy Development

WP4 builds on the engagement methodology from WP1 to facilitate expert co-design processes. Through workshops, exchanges, and collaborative sessions, WP4 collects feedback that informs piloting activities and policy development. Data generated includes workshop notes, feedback forms, and co-creation outputs. These materials are analysed to produce policy recommendations, a roadmap for institutional transformation, and the

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INITIATE Alliance for green energy transition. WP4 ensures that all data used in policy work is ethically sourced, well-documented, and traceable. It also contributes to the Ethics Management Plan and coordinates with WP6 to disseminate policy outputs.

WP5 – Pilot Demonstration, Validation and Replication

WP5 manages the implementation of pilot activities across three sites. It coordinates user engagement, co-creation workshops, R&I Labs, and the deployment of technical solutions. Data collected includes sensor readings, operational logs, user feedback, and workshop outputs. Pilot data is structured according to templates developed in WP2 and uploaded to the Knowledge Base for use in WP3 and WP6. Sensitive data is anonymised before storage, and all pilot datasets are reviewed for completeness and quality. WP5 also ensures that pilot activities are aligned with ethical standards and that data is shared securely across the consortium.

WP6 – Impact, Expolitation and Dissemination

WP6 maximises the impact of INITIATE by coordinating dissemination, exploitation, and stakeholder engagement. It uses data from WP1, WP3, and WP5 to assess social awareness, institutional transformation, and market replication potential. WP6 also develops communication materials, event outputs, and replication analyses. Data generated includes workshop attendance records, feedback forms, dissemination metrics, and exploitation plans. WP6 ensures that all public-facing materials are documented, licensed appropriately, and shared via open access platforms. It also liaises with external networks and projects to promote reuse and visibility of INITIATE outputs.

WP7 – Project Management, Ethics and Data Governance

WP7 oversees the operational, administrative, and ethical dimensions of INITIATE. It manages the internal SharePoint structure, coordinates communication across the consortium, and ensures compliance with EC rules and GDPR. WP7 also leads the implementation of the Data and Ethical Policy (Task 7.3) and chairs the Data & Ethics

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Committee. Data managed by WP7 includes meeting notes, consent forms, ethics documentation, and internal reports. These materials are stored securely and access-controlled. WP7 conducts regular audits, monitors metadata completeness, and supports partners in applying FAIR and open science principles. It also prepares and updates the DMP deliverables (D7.2, D7.3, D7.4), ensuring that data governance evolves with the project.

3. Data management practices

This chapter outlines updates to data management routines since D7.2, emphasising concrete changes introduced during project execution and how those changes map to specific work packages and tasks. The text focuses on refinements rather than restating established policy, highlighting implemented tools, clarified responsibilities, and immediate actions to be taken before D7.4.

3.1. Collection and generation methods

After the first pilot cycle (WP5) and stakeholder activities (WP1), we simplified how data enters the project. Survey questions and interview forms used in T1.2 were shortened to avoid collecting names or other direct identifiers, except the survey for the Stakeholder Community which collects basic information on the stakeholders' institutions and is accessible for stakeholders through the Knowledge Base Survey repository. Pilot reports in T5.1 now produce time-series and event logs that are published in the Knowledge Base in the Document Repository. The template for these pilot reports was presented in detail in D5.1. All pilot reports, from baseline to progress reports, will follow this template.

In practice, new data follows three clear routes. Workshop notes and baseline stakeholder feedback (WP1) were put into standard templates that included basic metadata. Pilot reports (WP5) are sent to the Knowledge Base developed in WP2. Legacy datasets gathered under WP2 are catalogued with source and version notes. UNIZAG FSB as the coordinator and brainit as the WP2 leader reviewed these routes during the M12–M18 work package finalizing cycle and updated consent texts and simple retention rules where needed.

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3.2. Processing workflows and tools

Processing moved from a plan into working pipelines. WP2 implemented the main ETL (extract–transform–load) modules that convert raw pilot telemetry into the Knowledge Base format. These modules include pseudonymisation steps agreed with the Ethics Manager in WP7 and D8.1 so that personal identifiers are removed before analysis. Text responses collected in WP1 are tokenised and redacted before being stored for analysis in WP6.

We reduced the number of platforms partners must use. Documents and templates stay on SharePoint (WP7). Code and scripts are hosted in GitLab/GitHub (WP3, WP6). The Knowledge Base (WP2/WP3) provides the dataset API used by modelling (WP3) and policy tasks (WP4). Following an internal security check led by WP7, we adjusted encryption-at-rest and improved access logging.

Processing documentation now contains simple flow diagrams and a short runbook that shows triggers, typical runtimes, rollback steps, and contacts for failures. WP3 keeps these materials up to date and available to partners.

Immediate next steps: parameterise ETL jobs to support batch re-processing after metadata backfill and add basic continuous-integration checks to the code repository to detect schema changes early.

3.3. Quality assurance and versioning

Quality checks are now applied to every new dataset. The procedure checks file type, required metadata, basic consistency (for example range checks and simple statistics), and final sign-off by the data owner. WP2 runs the QA schedule and sends a short weekly summary of outstanding quality issues that matter for WP3 models and WP4 policy work.

We introduced a clear versioning rule: each dataset uses a semantic tag (major.minor.patch). Any major change creates an immutable snapshot so WP3 and WP6 can reproduce past model runs and analyses. Minor and patch changes are logged automatically; the data owner approves major version updates.

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Immediate next steps: publish a one-page QA checklist for partners, enable automatic alerts for metadata or schema errors, and schedule a mid-term QA audit led by the Data & Ethics Committee.

4. Legal, ethical and Security Considerations

This chapter outlines how the INITIATE consortium continues to ensure that all data-related activities meet legal and ethical standards, with a particular focus on GDPR compliance, ethics approvals, and data security. Since the submission of D7.2, several procedures have been refined and put into practice, especially through WP7 and the Ethics Management Plan developed in WP4.

4.1. GDPR compliance and data protection

The consortium has strengthened its approach to GDPR compliance during the first half of the project. Data collected through stakeholder engagement (WP1) and pilot activities (WP5) is now processed using updated consent forms and anonymisation protocols. These updates were reviewed and approved by the Ethics Manager and the Data & Ethics Committee (WP7), ensuring that personal data is handled with care and only when necessary. As proposed in the previous version of the DMP: “All partners that lead activities that require data collection, such as events, surveys, monitoring activities, and others, will automatically be part of the data and ethics committee as they are responsible to follow all the procedures identified in this deliverable” (D7.2, pp. 33).

Each partner is responsible for managing the data they collect, and the coordinator (UNIZAG FSB) oversees the overall compliance process. Sensitive data is stored securely and access is restricted to authorised users. The Knowledge Base (WP2) now includes built-in privacy flags and access controls, allowing partners to classify datasets as public, restricted, or confidential.

4.2. Ethics approvals and sensitive data handling

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Ethics approvals for data collection activities have been obtained where required, particularly for surveys and interviews conducted under WP1. The Ethics Management Plan (D4.1) outlines the procedures for identifying and mitigating risks related to bias, misinformation, and participant privacy. These procedures are now embedded in the data collection workflows and are monitored by the Data & Ethics Committee.

Sensitive data—such as personal opinions, demographic details, or location-based information—is processed using pseudonymisation techniques before being used in analysis or modelling. This ensures that individual identities are protected while still allowing meaningful insights to be drawn from the data.

4.3. Access control and security protocols

Data security has been a key focus of WP7, with practical measures now in place across the consortium. All project data is stored in secure environments, including SharePoint for documents and GitLab/GitHub for code and scripts. The Knowledge Base includes encryption-at-rest and access logging features, which were reviewed and adjusted following an internal security audit and Knowledge Base implementation in M18.

Access to sensitive datasets is managed through role-based permissions, and each partner is responsible for ensuring that their data is backed up and recoverable. The consortium follows recognised standards such as ISO/IEC 27001 to maintain confidentiality, integrity, and availability of information.

In addition to technical datasets, the consortium has collected qualitative and administrative data such as **meeting notes, stakeholder surveys, and workshop summaries**. These materials are stored in the internal SharePoint repository on OneDrive platform, organised by work package and access-restricted to authorised partners.

All survey and interview forms included a clear data usage statement, informing participants of the purpose, storage, and handling of their responses (Annex 2). Consent forms and anonymisation procedures are archived alongside the raw data. This ensures that all

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personal or sensitive information is handled in accordance with GDPR and the project's Ethics Management Plan.

5. FAIR Principles and Open Access

The INITIATE consortium continues to implement the FAIR data principles—Findability, Accessibility, Interoperability, and Reusability—as a core part of its data strategy. Since the initial DMP (D7.2), several practical steps have been taken to embed these principles into the project's workflows, tools, and governance structures. This chapter outlines how FAIR is being applied mid-project, and how open access practices are evolving in line with Horizon Europe requirements.

5.1. Implementation of FAIR (Findable, Accessible, Interoperable, Reusable)

The FAIR principles are now actively guiding how data is described, stored, and shared across INITIATE. Metadata templates developed in WP2 and implemented in WP3 ensure that datasets are consistently named, versioned, and documented. These templates are now used across pilot activities (WP5) and stakeholder engagement (WP1), making datasets easier to locate and understand.

Accessibility has been improved through clearer licensing and classification of datasets. Public datasets are published on the project website and shared via open repositories, while sensitive datasets remain protected within the SharePoint system. WP7 oversees access control and ensures that permissions are correctly assigned.

Interoperability has progressed through the development of common data formats and API specifications in WP3. The Knowledge Base now supports integration with external tools and platforms, using standard vocabularies and protocols. This enables smoother data exchange between INITIATE and sister projects, as well as future reuse by third parties.

Reusability is supported by detailed documentation and consistent metadata. WP2 and WP6 have begun preparing datasets for long-term preservation, ensuring that they remain usable beyond the project's duration. All public datasets are accompanied by clear usage terms and

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attribution guidelines.

5.2. Open access to research data and publications

Open access remains a priority for the consortium. All public deliverables are published on the INITIATE website and submitted to the CORDIS platform. Scientific publications resulting from the project are made available through open-access journals or repositories, in line with the Grant Agreement and Horizon Europe's open science policy.

During the first half of the project, WP7 coordinated the publication of several deliverables and supported partners in selecting appropriate repositories. WP4 and WP6 are preparing policy briefs and impact reports that will also be shared openly. The consortium continues to monitor compliance with open access requirements and encourages partners to adopt Creative Commons licensing where appropriate.

In addition to publishing deliverables and publications on the INITIATE website and CORDIS, the consortium is in the process of establishing a dedicated **INITIATE community on Zenodo**. This will serve as an open-access repository for all project-related outputs, including:

- Open-access journal articles
- Preprints of non-OA publications
- Public datasets and metadata records
- Conference presentations and posters

While some publications have already been shared via ResearchGate, Zenodo offers the advantage of project-level discoverability and DOI assignment. The INITIATE Zenodo community will be linked from the project website and updated regularly to ensure compliance with Horizon Europe's open science requirements.

5.3. Use of repositories and licensing

The INITIATE Knowledge Base, developed in WP2 and WP3, serves as the central repository for project data. It includes built-in metadata fields, access controls, and versioning features.

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Public datasets are also shared via GitHub and other open platforms, depending on their format and intended audience.

Licensing practices have been clarified since D7.2. Most public datasets are released under CC BY 4.0, allowing reuse with attribution. WP7 provides guidance on licensing and ensures that all shared materials include the necessary legal information. Sensitive datasets remain protected under internal agreements and are not shared outside the consortium.

6. Governance and Responsibilities

Effective data governance is essential to ensure that data within INITIATE is managed responsibly, securely, and in alignment with EU regulations and project goals. Since the initial DMP (D7.2), the consortium has strengthened its internal coordination, clarified partner responsibilities, and introduced monitoring mechanisms to support compliance and quality assurance. This chapter outlines the current governance structure and how it supports the implementation of FAIR principles, ethical standards, and open access practices.

6.1. Roles of consortium partners in data management

Each partner in INITIATE plays a defined role in managing the data they generate or use. These roles were initially outlined in D7.2 and have since been refined through practical collaboration across work packages. UNIZAG FSB, as the project coordinator and lead for WP7, oversees the overall data governance framework and ensures that all partners follow agreed procedures.

Work package leaders are responsible for ensuring that data collected within their activities is properly documented, securely stored, and shared according to the project's access policies. For example, WP1 leads manage stakeholder data and ensure ethical handling during engagement activities, while WP5 partners oversee the collection and processing of pilot site data. WP2 and WP3 jointly manage the INITIATE Knowledge Base, ensuring that datasets are properly ingested, versioned, and made available for modelling and analysis.

Responsibilities are also distributed across technical and ethical domains. WP3 leads the

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development of data processing tools and APIs, while WP4 ensures that policy-related outputs are based on reliable and well-documented data. WP7 supports all partners with guidance on GDPR compliance, licensing, and metadata standards.

6.2. Monitoring mechanisms and updates from the Data & Ethics Committee

The Data & Ethics Committee, established under WP7, continues to play a central role in overseeing data governance. Since D7.2, the committee has met regularly to review data handling practices, assess ethical risks, and provide recommendations for improvement. It includes representatives from key partners and maintains close coordination with the Ethics Manager and the WP leads.

Monitoring activities include periodic reviews of metadata completeness, access permissions, and data quality indicators. The committee also tracks the implementation of anonymisation and pseudonymisation procedures, especially for sensitive datasets collected in WP1 and WP5. Findings and recommendations are documented and shared with the consortium via SharePoint, and follow-up actions are coordinated by the WP7 team.

A mid-term audit is planned for M24 to assess compliance with FAIR principles, GDPR, and internal governance standards. This audit will inform the final DMP (D7.4) and help identify areas for improvement.

6.3. Budget and resource allocation

Resource allocation for data management has remained stable, with adjustments made to support increased data volume and FAIR implementation. WP7 continues to manage the central budget for repository maintenance, metadata tooling, and open access publication fees. Each partner is responsible for securing and backing up their own data, and for contributing to shared infrastructure where relevant.

Efforts related to FAIR data—such as metadata creation, documentation, and repository integration—are now more evenly distributed across technical work packages. WP2 and WP3 have dedicated resources for maintaining the Knowledge Base and supporting data

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interoperability, while WP6 allocates effort for preparing datasets for long-term reuse and impact assessment.

As the project moves toward its final phase, the consortium will review resource needs to ensure that all data-related commitments can be met, including those related to post-project preservation and open access.

7. Next steps

As INITIATE moves into its second half, the consortium is preparing for the final phase of data management. This chapter outlines the planned improvements, lessons learned, and the timeline for completing the final Data Management Plan (D7.4). It builds on the progress made so far and identifies areas where further refinement is needed to ensure that all data-related commitments are met.

7.1. Planned improvements toward final DMP (D7.4)

The final DMP will consolidate all data-related activities and provide a complete overview of datasets, repositories, and long-term preservation strategies. To prepare for D7.4, the consortium will focus on:

- Completing metadata backfill for early datasets and automating metadata validation
- Finalising the versioning and quality assurance procedures across all work packages
- Documenting the full lifecycle of pilot data, including post-project access and reuse
- Strengthening links between the Knowledge Base and external repositories for long-term sustainability

WP2 and WP3 will lead the technical updates, while WP7 will coordinate governance and compliance tasks. All partners will contribute by reviewing their data inventories and ensuring that documentation is complete and consistent.

7.2. Challenges encountered and lessons learned

During the first half of the project, several challenges emerged in managing diverse data

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sources across multiple partners and pilot sites. These included:

- Aligning metadata practices across different formats and disciplines
- Ensuring consistent application of anonymisation and access controls
- Balancing open access goals with the need to protect sensitive information

To address these challenges, the consortium adopted a more streamlined metadata template, clarified roles and responsibilities, and introduced regular monitoring through the Data & Ethics Committee. These adjustments have improved coordination and reduced the risk of non-compliance.

The experience also highlighted the importance of early planning, clear documentation, and ongoing communication between technical and ethical leads. These lessons will inform the final phase of data management and support the delivery of D7.4.

7.3. Timeline for future updates

The final Data Management Plan (D7.4) is scheduled for submission in M42. Key milestones leading up to this deliverable include:

- M24: Mid-term audit of data governance and FAIR implementation
- M30: Completion of metadata and versioning updates
- M36: Review of long-term preservation plans and repository integration
- M41: Final partner review and consolidation of inputs for D7.4

Throughout this period, WP7 will continue to coordinate updates and provide guidance to partners. The consortium remains committed to maintaining high standards of data quality, security, and openness, ensuring that INITIATE's research outputs remain accessible and impactful beyond the project's duration.

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Annex 1

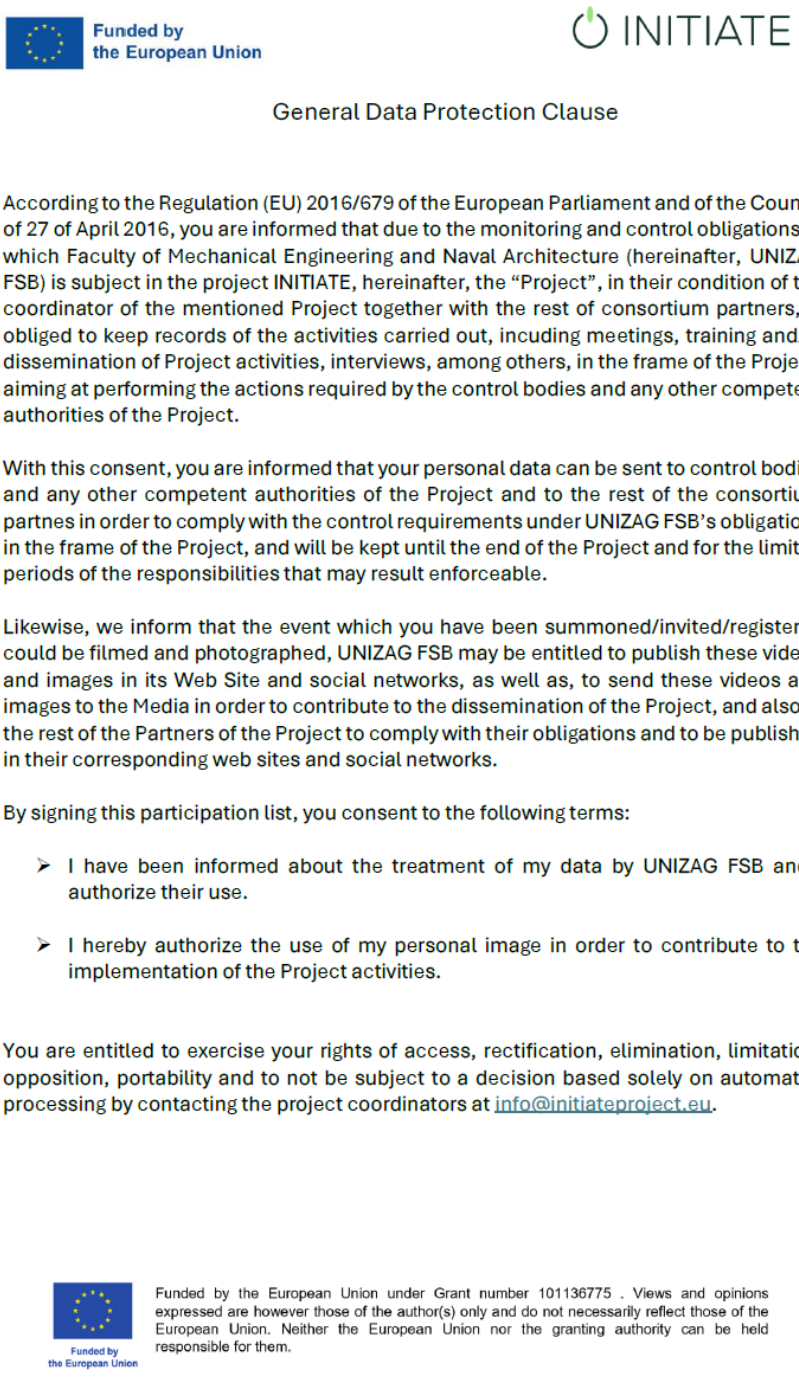
WP	Data Activities	Data Types	Storage & Access	Governance & Compliance	Responsible Partners
WP1	Conducted surveys, interviews, and workshops; collected qualitative feedback	Survey responses, workshop notes, stakeholder profiles	Stored on internal SharePoint (OneDrive – restricted); anonymised; consent forms archived	Ethics Manager review; GDPR-compliant forms; supports WP4 & WP6	ESEIA, UNIZAG FSB
WP2	Defined metadata templates; structured ingestion protocols; integrated datasets	Metadata records, structured datasets, external sources	INITIATE Knowledge Base; SharePoint for documentation,	Leads metadata and ingestion protocols; coordinates with WP3 & WP7	UNIZAG FSB, BrainIT, UKIM
WP3	Development of training tools and visualisations; inclusive data presentation	Curated datasets, visual materials, training modules	INITIATE Knowledge Hub; GitHub/GitLab for code	Ensures FAIR and accessibility; supports WP6; aligns with WP7 ethics	BrainIT, UNIZAG FSB, CYI
WP4	Expert engagement; feedback collection; policy drafting	Workshop outputs, feedback forms, co-creation notes	SharePoint; INITIATE website for public outputs	Contributes to Ethics Plan; prepares policy briefs and roadmap	ESEIA, UNIZAG FSB
WP5	Collected technical and operational data from pilot sites	Sensor data, operational logs, pilot feedback	INITIATE Knowledge Base; restricted SharePoint folders	Ensures data quality; anonymisation protocols; supports WP3 & WP6	UNIZAG FSB, UKIM, ISCTE, UTBV
WP6	Analysis of project impact; stakeholder outreach; exploitation planning	Aggregated datasets, survey results, model outputs, dissemination metrics, replication reports	SharePoint; GitHub for scripts; public repositories	Coordinates OA strategy; supports reuse and replication; links to WP4	UNIZAG FSB, BrainIT
WP7	Oversight of data governance; internal coordination; ethics monitoring	Meeting notes, consent forms, ethics documentation, internal reports	Internal SharePoint; access-controlled folders	Chairs Data & Ethics Committee; prepares DMPs; ensures GDPR compliance	UNIZAG FSB, ESEIA

Figure 1 Summary of Data Handling by Work Package

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Annex 2



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INITIATE

General Data Protection Clause

According to the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 of April 2016, you are informed that due to the monitoring and control obligations to which Faculty of Mechanical Engineering and Naval Architecture (hereinafter, UNIZAG FSB) is subject in the project INITIATE, hereinafter, the "Project", in their condition of the coordinator of the mentioned Project together with the rest of consortium partners, is obliged to keep records of the activities carried out, incuding meetings, training and/or dissemination of Project activities, interviews, among others, in the frame of the Project, aiming at performing the actions required by the control bodies and any other competent authorities of the Project.

With this consent, you are informed that your personal data can be sent to control bodies and any other competent authorities of the Project and to the rest of the consortium partnes in order to comply with the control requirements under UNIZAG FSB's obligations in the frame of the Project, and will be kept until the end of the Project and for the limited periods of the responsibilities that may result enforceable.

Likewise, we inform that the event which you have been summoned/invited/registered could be filmed and photographed, UNIZAG FSB may be entitled to publish these videos and images in its Web Site and social networks, as well as, to send these videos and images to the Media in order to contribute to the dissemination of the Project, and also to the rest of the Partners of the Project to comply with their obligations and to be published in their corresponding web sites and social networks.

By signing this participation list, you consent to the following terms:

- I have been informed about the treatment of my data by UNIZAG FSB and I authorize their use.
- I hereby authorize the use of my personal image in order to contribute to the implementation of the Project activities.

You are entitled to exercise your rights of access, rectification, elimination, limitation, opposition, portability and to not be subject to a decision based solely on automated processing by contacting the project coordinators at info@initiateproject.eu.

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Figure 2 GDPR template for stakeholders' engagement

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INITIATE

INITIATE- Meeting Agenda

Wednesday 23rd October, 2024 – Friday 25th October, 2024

Lisbon, Portugal

Venue link: ISCTE Campus Lisboa, INDEG-ISCTE building

*Signing this participant list you grant ISCTE the right to take photographs and/or videos of you during the event. You understand that these photographs and/or videos may only be used for promotional, marketing, or informational purposes in the dissemination part of the project INITIATE.

Participant List

Date: _____

Name	Institution	Signature

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Figure 3 Participants List template for INITIATE events and meetings with short GDPR disclaimer



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