Deliverable D1.3

Data Management Plan

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EXECUTIVE SUMMARY

The BISON project is led by a consortium of 39 European members and associated countries. It aims to tackle the integration of biodiversity with the development of infrastructure, including roads, railways, waterways, airports, ports, or energy transport networks.

The BISON project will meet the above aim through the following objectives:
- Identify future research and innovation needs for a better integration of biodiversity with infrastructure.
- Identify the construction, maintenance and inspection methods and materials which are long-lasting and resilient and can be used by different transport modes to mitigate pressure on biodiversity.
- Support European Member States to fulfil their international commitments by engaging all stakeholders into biodiversity mainstreaming for infrastructure planning and development.
- Strengthen European Member States' leadership in sustainability, by showing the way to other countries, including developing countries.

The Data Management Plan (DMP) of the BISON project is produced in the context of WP1 – Project Management Plan. WP1 is devoted to administrative and technical coordination of the project, to ensure the timely completion of planned project outcomes and the smooth and effective interaction between partners. Other issues covered in this WP include project administration, financial follow-up, as well as communication inside and outside the Consortium. Other management-related issues, such as quality management will also be addressed. The DMP will detail the data that will be collected and generated, how data need to be handled, classified, and stored to comply with data protection regulations and good practice, and which data can be shared or need to be protected/restricted. The BISON Data Management Plan is a living document and as such will follow and reflect the evolution in the form of dataset updates and/or respective changes in the Consortium policies.

ABBREVIATIONS

Abbreviation	Meaning
DMP	Data Management Plan
DPO	Data Protection Officer
EU	European Union
EU SGI	European Union Strategy on Green Infrastructure
NGO	Non-Governmental Organisation

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1. INTRODUCTION

This first version of the Data Management Plan (DMP) contains an initial outline of the types of data the project will collect. It also includes the initial procedures for making the data open and accessible to any interested parties outside the consortium. The DMP is a living document and will be updated in the context of the periodic evaluation/assessment of the project. The timeline of the Data Management Plan for BISON is as follows:

- Month 6 (June 2021) D1.3 Data Management Plan.
- Month 18 (June 2022) D1.5 Data Management Plan - 1st update.
- Month 30 (June 2023) D1.6 Data Management Plan - 2nd update.

2. DATA SUMMARY

Biodiversity is essential for life and human well-being and its loss is recognised as one of the main global risks that we are currently facing. The increasing interest at the European and international level for mainstreaming biodiversity with transport infrastructure reflects the growing challenges to be faced with simultaneously the increasing demand for mobility and the need to halt biodiversity loss.

To achieve this goal and promote restoration of the ecosystems and its services to society the EU has launched two Strategies: the EU Strategy on Green Infrastructure and the EU Biodiversity Strategy for 2030 which is part of the European Green Deal. BISON identify opportunities and synergies to contribute towards achieving the goals of these Strategies by mainstreaming biodiversity on transportation infrastructure.

The EU Strategy on Green Infrastructure (COM/2013/0249) promotes the deployment of green infrastructure across Europe. This can also help enhance the health and wellbeing of EU citizens, provide jobs, and boost our economy.

The EU Biodiversity Strategy for 2030 (COM/2020/380) is a core part of the European Green Deal. It is a long-term plan to protect nature and reverse the degradation of ecosystems. This strategy aims to put Europe's biodiversity on a path to recovery by 2030 and contains specific actions and commitments that could be developed across transport infrastructure development and operation.

To address this challenge, the BISON project will contribute to put spur further solutions for policy, innovation and research that can simultaneously benefit mobility policy targets and biodiversity. The BISON project identifies opportunities and synergies to contribute towards achieving the goals of Horizon Europe, Connecting Europe Facility and the EU Biodiversity strategy for 2030 by mainstreaming biodiversity on transportation infrastructure.

In BISON, data will be collected primarily through the BISON online survey which was launched in April 2021. The survey is on the mainstreaming of biodiversity in national transport infrastructure development for all transport modes. It aims to identify the level of maturity, gaps, and needs of European Member

States, at policy, legislative and implementation levels. The survey was circulated to a wide range of stakeholders, including:

- Decision makers (e.g. National Transport Infrastructure and Environmental Agencies).
- Practitioners (e.g. private and public companies in the transport sector and environmental sector).
- The scientific community and European Technology Platforms.
- Associations and Civil societies (National and International NGOs active in the fields of transport and environment)

The topics addressed in the survey include:

- Policy, legislation and regulations at EU Members States concerning transport infrastructure and biodiversity.
- Gaps and Barriers to mainstream biodiversity on transport infrastructure development at national and local levels.
- National transport infrastructure and European Union planning strategy.
- Transport Infrastructure and Green Infrastructure.
- Expectations and proposals for more biodiversity-friendly transports.
- Description of transport infrastructure projects and management stages.
- Ecological connectivity and defragmentation planning and measures.
- Digitalization of transport infrastructure.
- Transport Infrastructure prospective: emerging trends.

The survey is divided into two parts: the strategic part and the technical part.

The datasets collected from the strategic part (multiple choice questions, yes/no questions, open questions) provide information about the level of maturity of EU Member States at policy, legislative and implementation levels regarding the mainstreaming of biodiversity and green infrastructure in the development of national transport infrastructure for all modes of transport.
Examples of questions are:

- What kind of policy tools do you plan to base the integration of biodiversity and Green Infrastructure in your National Transport Policy and Strategies?
- In case biodiversity and Green Infrastructure have been successfully integrated in your National/Regional Transport Master Plan(s) and/or relevant documents, please provide some information regarding some main features (to be described as a Good Practice).

The datasets collected from the technical part (multiple choice questions, yes/no questions, open questions) provide information about good practices/tools and innovations in project management and "Avoid-Mitigate-Compensate" integration from early study stages to the construction and management stages.

Examples of questions are:

- Please, provide examples of the most important invasive species that relate to or affect infrastructure in your country - and what is anticipated for the near future (until 2050)? Examples may touch economic and biological effects; costs and impacts on society.
- Can you designate or hand over a best practice or lighthouses example (for your country) for a best solution for the integration of a biodiversity approach or a representative multispecies approach in "SEA", "EIA" and/or "impact mitigation and regulation"?

The milestones and deliverables that cover the gathering or generation of relevant data affecting the results of the BISON project are presented in Table 1. The level of access is also indicated for each milestone/deliverable. The table will be updated at regular intervals.

Table 1. Milestones and deliverables in relation to data gathering or generation, and their access level.

WP	Milestone (MS)/ Deliverable (D)	Due	Data Type	Responsible Partners	Data access level
MS7	Tables files including the answers to the questionnaires	31 May 2021	Aggregated survey results compiled in .txt .xls .xlsx .csv .pdf	CEREMA	Results will be used in preparing deliverables mentioned in this table
D3.1	Report on principles and criteria to select good practice	31 January 2022	Report in .pdf	CEREMA	Deliverable D3.1 is available for public
D3.2	Report on identification of Gaps and Barriers to expand replicability and application of good practice to mainstream biodiversity and transport	30 April 2022	Report in .pdf	CEREMA	Deliverable D3.2 is available for public
D3.4	Report on future trends and emerging topics	31 May 2022	Report in .pdf	SLU	Deliverable D3.4 is available for public
D4.1	Research and innovation needs expressed by stakeholder	31 July 2021	Report in .pdf	UGE	Deliverable D4.1 is available for public
D5.1	Status of national policy, legislation and implementation tools and recommendations for the integration of the EU SGI into transport infrastructure development	31 March 2022	Report in .pdf	CERTH	Deliverable D5.1 is available for public
D5.3	Development and use of the European Defragmentation Map	31 Dec 2022	Report in .pdf	BFN	Deliverable D5.3 is available for public

The data and information gathered through this process and the reports that will be generated, will be useful for all relevant stakeholders, especially for decision makers, practitioners, the scientific community.

However, the project is not going to use only these data. Interviews, additional surveys, workshops, etc. are planned later during the project. The Data Management Plan will be updated with this info.

2.1. Data Protection Procedures

In the following sub-sections, the principles and procedures that will be applied in the BISON project, necessary for the collection, processing, storage, protection, retention and destruction of the personal data and opinion are presented, in accordance to the information included in D6.1 of BISON project.

2.1.1 Procedures for Personal Data Collection and Processing

For the collection and processing of personal data during any stakeholder consultation and/or case studies realisation that will take place throughout the BISON project, the following procedures should be followed:

- Collection of personal data from potential stakeholders will be based on a voluntary basis.
- Invitations to the potential stakeholders to participate in each of the project's consultation processes will be given by individual Consortium partners, linked third parties and/or the Advisory Group (AG) members through their own network of contacts; therefore no contact data will be shared without consent.
- Through a multi-stakeholder platform the stakeholders participation and consultation activities for the realisation of the technical work of BISON project will be coordinated and potential stakeholders will be able to subscribe and provide limited amount of personal data (e.g., name, name of organisation, role in the organisation, sector of the organisation's activities, country and email address). An Informed Consent Form explaining the use of the personal data will be available as part of the registration form and its approval will be necessary for completing the subscription.
- Any time after subscription, stakeholders reserve the right to terminate their communication and cooperation with the BISON consortium and unsubscribe from the platform and the network upon request. Moreover, they also reserve the right to access and modify their data.
- Information about the objectives of the project and details about the consultation processes will be provided in advance to all external stakeholders who are interested in contributing to them. In addition, they will receive:
  - a simple description of the project in both written and oral form;
  - the project goals;
  - the planned project progress;
  - the relevant consultation procedures;
  - advice on unrestricted disclaimer rights on their agreement;
  - information about any face and voice data recordings and the exact reference to the consent form (if applicable).
  - In this document the privacy statements for handling the collection, processing, storage and protection of personal data will be explained.
- When participating in any consultation process, the stakeholders can indicate whether their personal data (e.g., name, surname, name of organisation) may be published in project's reports or on project's communication materials.
- Personal contact data (e.g., email) will be kept internally within the BISON consortium and will not be published or accessible to external organisations and/or individuals;
- No secondary use of personal data will be performed;
- Personal data collected in EU will not be transferred to entities in non-EU countries;
- Stakeholders will be approached based on their professional capacity and may be contacted for consultation only;
- No scientific research, analysis or processing will be performed on the personal data collected;
- For the execution of the case studies, non-disclosure agreements will be drafted and bilaterally signed by the BISON project coordinator and any involved external entity. These entities shall be able to propose amendments to the common non-disclosure agreement to also allow incorporating their own corporate interests where relevant. The detailed results of the case studies and any sensitive information resulting from them will not be disclosed.

- For dissemination reasons, name and organisation of the BISON Advisory Group members may be published in project reports, communication materials and website. No contact data of the AG members will be shared without their consent.
- The BISON project partners as well as the AG members maintain an appropriate standard of confidentiality.

2.1.2 Procedures for Data Storage, Protection and Retention

Any personal data and technical feedback/input collected in the context of the BISON project will be stored electronically (e.g. in form of word or excel files) on the project's shared extranet, which will be password protected and accessible by the project's consortium and linked third parties only. These data will not be shared and cannot be accessed and copied by any external party.

2.1.3 Procedures for Data Destruction

Any collected personal data will be deleted from the project's data storage five years after the end of the project. Upon the request of stakeholders, their personal data will be deleted from the project repositories.

FEHRL has appointed a Data Protection Officer (DPO). In line with GDPR, individual beneficiaries are responsible for their own data processing, so the respective beneficiaries are to involve their own DPOs, who will ensure the implementation and compliance of the procedures and protocols in line with internal processes and national regulations.

The data controllers for the survey are CEREMA, FRB and UIC.
The data processors for the survey are CEREMA, MINUARIA, UGE and CERTH.

The data protection procedures will be updated in subsequent versions of the BISON Data Management Plan, in accordance also to the identification and description of the different data types that will be collected during the BISON project (in D1.5).

3. FAIR DATA

3.1. Making data findable, including provisions for metadata

The data produced will be easily findable as they will be mostly within the deliverables to be published during the project, which will be available on the public website of the project, https://bison-transport.eu/.

Selected data will also be published in publications that are to be generated along the course of the project. Keywords will be defined for each publication and deliverable that would be available on the website. Academic papers that will result from the project will, by default, be equipped with a DOI – this will be taken care of by publishers. This section will be updated when more results and data have been generated.

The following questions will be further answered in the data identification process:

- 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)?
- What naming conventions are being followed?
- What metadata will be created? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.

3.2. Making data openly accessible

As stated in section 3.1, most data will be embedded in the deliverables which will be publicly available on the BISON project website.

In order to maximise the impact of the BISON, the project will facilitate sharing of results and deliverables within and beyond the consortium. Selected data and results will be shared with the scientific community and other stakeholders through publications in journals and presentations at conferences, as well as through open access data repositories.

As the project progresses and data is identified and collected, further information on making data openly accessible will be outlined in subsequent versions of the DMP.

3.3. Making data interoperable

As the project progresses and data is identified and collected, further information on making data interoperable will be outlined in subsequent versions of the DMP. In specific, information on data and metadata vocabularies, standards or methodology to follow to facilitate interoperability and whether the project uses standard vocabulary for all data types present to allow interdisciplinary interoperability.

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

The initial date of release for the data identified above will follow the timeline/schedule (Gantt chart) of the deliverables as defined in the DoA (Table 1). The data quality assurance will be done before the publication of the relevant data-related deliverables.

The questions below with regards to the re-usage of data produced will be further addressed in detail in the data re-usage process as the project moves forward:
- How will the data be licensed to permit the widest re-use possible?
- When will the data be made available for re-use? If an embargo is sought to give time to publish or seek patents, specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible.
- Are the data produced and/or used in the project useable by third parties, in particular after the end of the project? If the re-use of some data is restricted, explain why.
- How long is it intended that the data remains re-usable?
- Are data quality assurance processes described?

4. ALLOCATION OF RESOURCES

FEHRL leads the data management within the BISON project. The allocation of resources to make the data FAIR is entailed in the budget allocated for each partner. If there would be detailed costs to make data FAIR, these will be further identified in the in financial reporting review process, where the following questions will be addressed:

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

5. DATA SECURITY

The BISON project has a secure Extranet on the website and SharePoint storage system in place for document management, storage system, and file sharing among members of the consortium. The BISON Extranet and SharePoint server goes through regular security updates and has real-time protection. Data security issues will be assessed prior to the publication of data in the deliverables.

6. ETHICAL ASPECTS

For the ethical aspects dealing with data collection, see Deliverable D6.1 (POPD – Requirement No. 1).