MAINSTREAM BIO

MAINSTREAMING SMALL-SCALE BIO-BASED SOLUTIONS ACROSS RURAL EUROPE

D6.4

Data Management Plan – Final Version

Q-PLAN INTERNATIONAL

30/06/2025

Funded by the European Union

PROJECT INFORMATION

PROGRAMME	Horizon Europe
TOPIC	HORIZON-CL6-2021-CIRCBIO-01-08
TYPE OF ACTION	HORIZON Coordination and Support Actions
PROJECT NUMBER	101059420
START DAY	1 September 2022
DURATION	36 months

DOCUMENT INFORMATION

TITLE	Data Management Plan – Final Version
WORK PACKAGE	WP6
TASK	Task 6.3
AUTHORS (Organisation)	Parodos L. (Q-PLAN)
REVIEWERS	Galatsopoulos Anastasios (WHITE), Alberto Álvarez (INNV)
DATE	30 June 2025

DISSEMINATION LEVEL

PU	Public, fully open	x
SEN	Sensitive, limited under the conditions of the Grant Agreement	
Classified R-UE/EU-R	EU RESTRICTED under the Commission Decision No2015/444	
Classified C-UE/EU-C	EU CONFIDENTIAL under the Commission Decision No2015/444	
Classified S-UE/EU-S	EU SECRET under the Commission Decision No2015/444	

DOCUMENT HISTORY

Version	Date	Changes	Responsible partner
0.1	17/04/2025	1st draft version distributed to partners for finalizing the datasets	Q-PLAN
0.2	06/06/2025	Full draft version including input and updates from partners, ready for Quality Review	Q-PLAN
1.0	27/06/2025	Final version ready for submission	Q-PLAN

TABLE OF CONTENTS

TABLE OF FIGURES

LIST OF TABLES

ABBREVIATIONS

CESSDA	Consortium of European Social Science Data Archives
DCMI	Dublin Core Metadata Initiative
DMP	Data Management Plan
DOI	Digital Object Identifier
EEA	European Economic Area
FAIR	Findable, Accessible, Interoperable and Re-usable

GDPR	General Data Protection Regulation
HTML	Hypertext Markup Language
MIP	Multi-actor Innovation Platform
OAI	Open Archives Initiative
OAI-PMH	Open Archives Initiative Protocol for Metadata Harvesting
PID	Persistent Identifier
PC	Project Coordinator
PO	Project Officer
QA	Quality Assurance
QC	Quality Control
TL	Task Leader
URL	Uniform Resource Locator
WP	Work Package
WPL	Work Package Leader
WTL	Work Task Leader

Executive Summary

This document constitutes the final version of the **Data Management Plan (DMP)** and has been elaborated as a deliverable (D6.4) in the framework of the MainstreamBIO project. MainstreamBIO sets out to get small-scale bio-based solutions into mainstream practice across rural Europe, providing a broader range of rural actors with the opportunity to engage in and speed up the development of the bioeconomy. Under this light, MainstreamBIO entails several activities within its framework which involve the collection, production and/or processing of data, with a view to generating meaningful insights that will feed into the project and fuel the co-creation of sustainable business models and the up-take of small-scale bio-based solutions.

In this context, the final version of the project's DMP reviews and revises, when necessary, the overall methodological principles pertaining to the management of the data that were collected, generated and / or re-used in the framework of MainstreamBIO, safeguarding sound and ethical data management along the entire duration of the project. Moreover, it provides an updated overview of MainstreamBIO's data, as identified in this final stage of the project, along with information on the methodology pertaining to their management as well as making them Findable, Accessible, Interoperable and Re-usable (FAIR).

The final version of the DMP is the last of the three versions of MainstreamBIO's Data Management Plan to be produced in the course of the project, serving as living document (D6.2 Data Management Plan – Initial Version delivered in M3, D6.3 Data Management Plan – Interim Version delivered in M18 and is currently completed as D6.4 Data Management Plan – Final Version in M34). Along these lines, the initial DMP has been updated to reflect an accurate, up-to-date, and ultimately comprehensive plan for managing the data that were and will be collected, generated and / or re-used by the project across their entire life cycle, both during and after the completion of MainstreamBIO.

1. Introduction

The current document represents the final version of the Data Management Plan (DMP) of MainstreamBIO, which has received funding from European Union's Framework Programme for Research and Innovation Horizon Europe under Grant Agreement No 101059420.

MainstreamBIO aims at contributing towards bringing **small-scale bio-based solutions** into the mainstream across rural Europe. To achieve this, the project is set to greatly enhance cooperation between key bioeconomy stakeholders, resulting in sustainable business model pathways for bio-based innovations in rural areas. Along these lines, the project follows an integrated methodology to establish regional **multi-actor structures** for demand-driven innovation, and deliver a combination of communication materials, training programmes, events, a decision support system, and other practical digital tools packed in the **MainstreamBIO Toolkit**.

To this end, the **consortium** of MainstreamBIO brings together a complementary and interdisciplinary group of **10 partners across 9 different countries** within the EU and beyond, as presented in the table which follows.

Table 1: MainstreamBIO Partners

Partner Role*	Partner No	Partner Name	Partner Short Name	Country
CO	1	Q-PLAN INTERNATIONAL ADVISORS PC	Q-PLAN	Greece
BEN	2	MUNSTER TECHNOLOGICAL UNIVERSITY	MTU	Ireland
BEN	3	WAGENINGEN UNIVERSITY AND RESEARCH	WR	Netherlands
BEN	4	INSTITUTE OF SOIL SCIENCE AND PLANT CULTIVATION	IUNG	Poland
BEN	5	RISE PROCESSUM AB	PROC	Sweden
BEN	6	AGRAREN UNIVERSITY - PLOVDIV	AUP	Bulgaria
BEN	7	FBCD AS	FBCD	Denmark
BEN	8	EURIZON SL	INNV	Spain
BEN	9	DRAXIS ENVIRONMENTAL SA	DRAXIS	Greece
BEN	10	WHITE RESEARCH SRL	WHITE	Belgium

* CO = Coordinator, BEN = Beneficiaries

All partners of MainstreamBIO's consortium adhere to sound data management principles in order to ensure that the meaningful data collected, generated and / or re-used throughout the duration of

the project are well-managed, archived and preserved, in line with the structure and guidelines of the Horizon Europe Data Management Plan Template[1].

Along these lines, this final version of the DMP aims to achieve the following objectives:

- Describe the data management lifecycle for the data to be collected, generated and / or re-used in the framework of MainstreamBIO, serving as the key element of good data management.
- Outline, review, and revise the methodology employed to safeguard the sound management of the data collected, and/or generated as well as to make them Findable, Accessible, Interoperable and Re-usable (FAIR).
- Provide updated information on the data that were and will be collected, generated and/or re-used and the way in which it will be handled during and after the end of the project along with the standards applied to this end.
- Describe details on how the data will be made openly accessible and searchable to interested stakeholders as well as its curation and preservation.
- Address the management of any research outputs other than data in line with FAIR principles.
- Present updated information on the resources to be allocated so as to make data FAIR, clearly identifying responsibilities pertaining to data management, while addressing data security and ethical aspects.

With the above in mind, this final version of **the DMP is structured in 8 distinct chapters**, as follows:

- **Chapter 1** provides introductory information about the DMP, the context in which it has been elaborated as well as about its objectives and structure.
- **Chapter 2** presents a summary of the data that has been or will be collected/generated or re-used during the activities of MainstreamBIO, including its purpose as well as its types and formats. Additionally, it outlines its origin, expected volume and the stakeholders that may find it useful.
- **Chapter 3** describes the methodology that is applied in MainstreamBIO in order to safeguard the effective management of data across their entire lifecycle, making it FAIR.
- **Chapter 4** presents the management of other research outputs that may be generated or re-used throughout MainstreamBIO and provides sufficient details on making them FAIR.
- **Chapter 5** estimates the resources required for making the project's data FAIR, while also identifying data management responsibilities.
- **Chapter 6** outlines the data security strategy applied within the context of MainstreamBIO along with the respective secure storage solutions employed.
- **Chapter 7** addresses ethical aspects as well as other relevant issues pertaining to the data collected/generated or re-used during the implementation of the project.
- **Chapter 8** concludes on the next steps foreseen in the framework of the project with respect to its data management plan.

[1] https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/temp-form/report/data-management-plan_he_en.docx

Annexed in the document are (i) the project's Privacy Policy (Annex I), the templates for the (ii) Informed Consent Form (Annex II) and (iii) the Data Subject Request Form (Annex III), (iv) the Record of Processing Activities (Annex IV) which has been and will be used during the implementation of the project's activities to ensure compliance with relevant applicable EU and national regulation(s), and (v) the main changes in the data collected/generated or re-used since their original definition in M3 (Annex V).

Note that the DMP is not a fixed document. It has been evolved since the beginning of the project (i.e. as D6.2 in M3, D6.3 in M18, and D6.4 in M34). Additional ad hoc updates have been realised (where necessary), in order to include new data, better detail and/or reflect changes in the methodology or other aspects relevant to their management (such as costs for making data FAIR, size of data, etc.), changes in consortium policies and plans or other potential external factors. Q-PLAN is responsible for the elaboration of the DMP with the support of all partners in its elaboration and execution of its provisions.

2. Data Summary

MainstreamBIO collects/generates or re-uses meaningful non-sensitive data that do not fall into any special categories[2] of personal data as those are described within the General Data Protection Regulation[3] (GDPR). This data may be quantitative, qualitative or a blend of those in nature and is analysed from a range of methodological perspectives with a view to producing insights that successfully feed MainstreamBIO's activities, enabling us to deliver evidence-based results and ultimately achieve the objectives of the project. With that in mind, the second chapter of the Data Management Plan (DMP) starts by explaining the purpose for which this data will be collected/generated and how it relates to MainstreamBIO. It proceeds by describing the different types and formats of this data as well as its origin and expected volume, before concluding with an overview of potential stakeholders for whom it may prove useful for re-use.

2.1 Purpose of data collection / generation or re-use and its relation to the objectives of the project

In order to successfully meet its objectives and ensure the production of evidence-based results, MainstreamBIO entails several activities during which data is collected/generated or re-used. The purpose for which this data is collected/generated or re-used is interrelated with the objective of the activity during which it is produced.

In particular, these activities along with their objectives in the framework of MainstreamBIO are as follows:

- **Extensive mapping of relevant stakeholders and selection of the key ones,** within our focal regions, in order to set up the 7 MainstreamBIO Multi-actor Innovation Platforms.
- **Analysis of needs, barriers and challenges to uptake and/or scale up small-scale bio-based solutions** in order to shed light on the context of farmers and rural communities and subsequently capture awareness levels and perceptions regarding the bioeconomy and bio-based solutions, products and nutrient circularity practices, amongst a broader group of stakeholders.
- **Analysis of attributes in the existing regional value chains,** to better understand the local product and service-based bio-based value chains.
- **Catalogue technologies, business models and social innovations for small-scale bio-based solutions,** built on already developed inventories and tools of bioeconomy projects ` toolkit.

[2] Special categories of personal data according to Regulation (EU) 2016/679 of the European Parliament (General Data Protection Regulation) include personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and the processing of genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person's sex life or sexual orientation.

[3] Regulation (EU) 2016/679 of the European parliament and of the council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32016R0679

- **Collection of best practices related to nutrient recycling,** in order to identify and inventorise practical information on efficient and cost-effective nutrient recycling practices which will be utilized for the development of the MainstreamBIO digital toolkit.
- **Organization of a co-creation workshop per MIP** aiming to co-define the service portfolio of each MIP and collect feedback on the functionalities of our toolkit.
- **Development of methodology for matching** available biomass and waste streams with market and technology information.
- **Development, upgrade and fine-tuning of the MainstreamBIO digital toolkit,** with a view to integrate knowledge in a multi-criteria decision model and to take account of regional focus groups' feedback and data collected from toolkit's practical use in the frame of MainstreamBIO's digital toolkit development and fine-tuning.
- **Identification and selection of suitable cases of multi-actor partnerships per MIP** with the aim to receive and benefit from the hands-on innovation support services across 2 rounds.
- **Organization of capacity building workshop,** in order to provide coaching to farmers, producers and local actors.
- **Delivery of innovation support services,** in order to enhance the market uptake of small-scale bio-based solutions.
- **Organization of networking events and demo days,** to facilitate connections between actors and to inspire their engagement in bioeconomy.
- **Deployment of regional awareness raising and education campaigns per round,** aiming to utilize the campaigns' baseline specs for the development and implementation of action plans tailored to each MIP's needs and context.
- **Monitoring and evaluation of regional MIP,** with the aim to fuel the iterative improvement of the innovation support services and digital toolkit by deploying the findings and results.
- **Organization of regional scale up workshop per MIP,** in order to discuss experiences, gained through MainstreamBIO, between multi-actor partnerships and stakeholders and co-create sustainable business model pathways for bio-based solutions.
- **Organization of cross-regional learning workshops,** with a view to share good practices and transfer knowledge across regions.
- **Development and refinement of MainstreamBIO's Replication Guide and Toolkit and "Policy Insights" set,** with a view to offer practical replication guidelines, policy recommendations and tools for interested regional actors.
- **Production of EIP-AGRI abstracts and audio-visual material,** aiming to contribute to the Knowledge Centre for Bioeconomy and so to serve the practitioners with relevant information, recommendations and practices.
- **Monitoring and assessment of the dissemination, communication, stakeholder engagement and clustering activities** of MainstreamBIO, with a view to measuring their results and impact, fine-tune our strategy in this respect as well as fulfil the project's reporting requirements towards the Commission.
- **Sketching alternative business models for the operation of MIPs,** with the aim to further explore the best one(s), which will serve as basis to the elaboration of concise business plans for MIPs and toolkit.
- **Setting up the Advisory Board Experts,** in order to help the evaluation process of the MIPs with their expertise, during Project's implementation.
- **Project management and coordination,** with the aim to effectively fulfill the Project goals, deliver high quality project results, prepare Project meetings and ensure sound management of data.

The following section provides further details on the different types and formats of data collected\generated or re-used during the project's activities.

2.2 Types and formats of collected / generated or re-used data

MainstreamBIO is set to collect / generate or re-use data of various structures and formats. Along these lines, the data definition process used for this DMP is based on the source and the physical format of the data[4]. In particular, we define two main aspects: (i) the process under which the underlying data are created / captured which includes electronic text documents, spreadsheets, questionnaires and transcripts, among others and (ii) the storage format of quantitative and qualitative data. Examples of this aspect include easily accessible formats, such as postscripts (e.g., pdf, xps, etc.), machine readable formats (xml, html, etc.), spreadsheets, (e.g., xlsx, csv, etc.), text documents (e.g., docx, rtf, etc.), compressed formats (e.g., rar, zip, etc.) or any other format (such as commonly used digital audio or video formats such as mp3 and mp4 respectively) required by the objectives and methodology of the activity within the framework of which it is produced.

Under this framework, special attention will be paid in using **open formats**[5] (such as csv, pdf, zip, etc.) and / or **machine-readable formats**[6] (such as xml, json, rdf, html, etc.) when possible, to enhance the **interoperability** and **re-use** of data. In doing so, we will be providing data that is **easily readable** and **freely usable in any software program** employed by third parties interested in utilizing the data.

The type and formats of the data collected / generated in the context of MainstreamBIO can be divided into **3 categories**, namely (i) data collected / generated by direct input methods; (ii) data collected / generated using the MainstreamBIO digital toolkit; and (iii) data collected / generated from dissemination, communication, stakeholder engagement and clustering activities, as described in the following subsections.

2.2.1 *Data collected / generated through direct input methods*

Direct input methods, under the scope of MainstreamBIO, involve methodologies for collecting data through desk research and interactions between consortium partners and external stakeholders, with the latter providing data to the former. Along these lines, external stakeholders undertake the role of a data subject which is a natural person whose personal data is being processed[7]. In particular, the identification and selection of suitable data subjects are based on purposeful sampling according to which, external stakeholders are identified and selected by consortium partners based on their role

[4] Jakobsson, U., Braukmann, R., Lundgren M., Expert Tour Guide on Data Management. Retrieved from https://www.cessda.eu/Research-Infrastructure/Training/Expert-Tour-Guide-on-Data-Management/1.-Plan.

[5] According to the Open Data Handbook: "*An open format is a file format with no restrictions, monetary or otherwise, placed upon its use and can be fully processed with at least one free/open-source software tool and it is not encumbered by any copyrights, patents, trademarks or other restrictions so that anyone may use it*".

[6] According to the Open Data Handbook: "*Machine readable formats are file formats that can be automatically read and processed by a computer. Machine-readable data must be structured data*".

[7] Regulation (EU) 2016/679 of the European parliament and of the council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32016R0679.

within the rural value chains (e.g., producer, consumer, intermediary, etc.) and the objectives of the respective activity for which data is collected. In this context, quantitative and qualitative data have been and will be collected / generated during MainstreamBIO[8]:

- **Quantitative data** is numerical and acquired through counting or measuring. Examples of quantitative data are the yearly turnovers of a business, the hourly compensation of a worker, the number of SMEs in Europe, etc. This data may be represented by ordinal, interval or ratio scales and lend themselves to statistical manipulation.
- **Qualitative data,** sometimes referred to as categorical data, is data that can be arranged into categories based on physical traits, gender, colours or anything that does not have a number associated with it. Moreover, written documents, interviews, and various forms of in-field observation are all sources of qualitative data. Examples of qualitative data are the preferences of learning, skillsets, country of origin, etc.

Additional details with respect to the different types and formats of data that have been and will be collected through direct input methods under the frame of MainstreamBIO are provided below.

Status of relevant stakeholders

The collection of the data was employed in two steps for the needs of mapping the stakeholders' status per MIP. In the first step, the existing platforms, networks and initiatives of partners were leveraged, thus resulting in the extensive mapping of relevant stakeholders. After that, the second step included the selection and engagement of 15 to 20 key stakeholders, creating a critical mass per MIP. The engagement process continued throughout the project. Data collected are both qualitative and quantitative and they are recorded in the form of spreadsheets, along with signed documents (informed consent forms, terms of reference).

Farmers', rural communities', and consumers' needs, socio-economic context and framework conditions

This data is collected in two stages in the frame of the analysis of the needs, socio-economic and framework conditions faced by farmers and rural communities. The first stage involved a desk study of 35 interviews conducted by the MIP Leaders. Both qualitative and quantitative data are collected through interview questionnaires during the first stage and stored in postscript format (pdf). The second stage was built on the above findings from interviews and includes a collection of data through an online survey amongst a broader group of stakeholders regarding the bioeconomy and bio-based solutions. Data collected in the second stage is both qualitative and quantitative and stored in spreadsheets.

Status of value chains in Project focal regions

Data was collected through desk research for preliminary mapping of the existing landscape of value chains in focal regions of the Project. In addition, data regarding the systems' characteristics was collected by engaging local value chain actors via interview questionnaires. The collected data is both qualitative and quantitative and is stored in documents, spreadsheets and vectorized formats (e.g., .shp, .shx,. sbn etc.). Furthermore, the collected data was customized in map formats (regional

[8] Neuman, W. L. (2014). Social research methods: Qualitative and quantitative approaches. Boston: Pearson.

maps and diagrams) using ArcMap software, in order to achieve a better and more interactive understanding of the value chains.

Catalogue on small-scale biobased technologies

Data on small-scale bio-based technologies were collected through literature search from already developed inventories and tools of bioeconomy projects, available to MainstreamBIO partners. The data is both qualitative and quantitative and stored in standard text documents and interview questionnaires (.docx), along with spreadsheets (.xlsx). In addition, the collected data was processed to generate the Catalogue on small-scale bio-based technologies, which is stored in document format.

Catalogue on business models

Data on business models were collected through literature search from already developed inventories and tools of bioeconomy projects, available to MainstreamBIO partners. The data is both qualitative and quantitative and stored in standard text documents and interview questionnaires (.docx), along with spreadsheets (.xlsx). In addition, the collected data was processed to generate the Catalogue on business models, which is stored in document format.

Catalogue on social innovations

Data on social innovations were collected through literature search from already developed inventories and tools of bioeconomy projects, available to MainstreamBIO partners. The data is both qualitative and quantitative and stored in standard text documents and interview questionnaires (.docx), along with spreadsheets (.xlsx). In addition, the collected data was processed to generate the Catalogue on social innovations, which is stored in document format.

Efficient and cost-effective nutrient recycling practices

Practical data relative to efficient and cost-effective nutrient recycling practices, with focus on waste streams, fertilizer products, social perception and acceptance and relevant legislation were collected by partners in the first eight months of the project, in order to assess against specific criteria the practices and deploy a dedicated best practices template. Moreover, during the above activity, in-depth interviews were held by partners, gaining useful information from relevant stakeholders and enriching the data collection. The collected data is mostly of qualitative nature, and it is recorded in document standard text and interview questionnaires (.docx), as well as in spreadsheets (.xlsx) format.

Co-creation workshop material

In the frame of MainstreamBIO co-creation workshops, a diverse group of ten to fifteen stakeholders per MIP gathered and co-defined the service portfolio of the respective MIP, and feedback on the functionalities of MainstreamBIO digital toolkit was collected to support its development. Guidelines were prepared by WHITE to be utilized for the coordination of the workshops' organization. The insights collected combined with WP1 results defined the portfolio's services and their delivery by each MIP, while this information and any prepared material will feed the MainstreamBIO toolkit across two innovation support rounds. Ideas and relevant insights were collected and written up by means of notes as document files, while videos and photographs were collected in audio-visual format (.jpeg, .mp4).

Co-creation workshop personal data

During the co-creation workshops per MIP, stakeholders participated in and gave their feedback, discussed and co-defined the service portfolio. Stakeholders' personal data was collected during these activities and recorded in participant lists for analysis, promotional utilisation or any other usage that partners may find worthwhile throughout the project. Consent forms were used for the collection and processing of data from stakeholders in line with GDPR.

Feedback for the development of decision-making model

WR has led the development of the easy-to-use DSS with support of the partners that are supplying essential information (QPLAN, AUP & INNV) and with the partner that is building the Toolkit (DRAXIS). The work was also supported by members of the Multi-actor Innovation Platforms (MIPs) who have provided feedback in a dedicated survey about the criteria and their allocated weights. Stakeholders were asked to specify their opinion on the most relevant criteria in the list, and to possibly add extra criteria if they missed any. The data set contains the answers to the survey. There were 39 respondents who filled in the survey. Unfortunately, not all respondents completed all questions. Three respondents did not score the criteria of all the themes. The results of the survey are described in Annex F of D2.4.

Material from relevant Projects' toolkits

Starting from the relevant project TRANSITION2BIO, data have been collected from its awareness, education and communication toolkits, in order to fuel the development of the Bioeconomy Repository and Tool Library of MainstreamBIO digital toolkit. In addition to TRANSITION2BIO, data has been collected through several EU and non-EU funded projects, EU platforms (e.g., Knowledge center for Bioeconomy, European Network for Rural Development etc.), and open Libraries. The collected material is qualitative and elicited in spreadsheets

Promising cases and needs

Data were collected during the first and second innovation round per MIP through open calls for interest with multi-actor partnerships and regional scouting to identify and select potential cases that could be supported by innovation support services. In addition, a selection matrix with guidelines and specific criteria was used in order to assess the collected data against the relative criteria and select the best cases, while also meetings and interviews with the selected multi-actor partnerships are conducted in order to assess their needs. Business information and contact details, spreadsheets (.docx, .xlsx), and meeting notes were used to capture data. All the collected data was put together in an Excel-file, one for each innovation round.

Capacity building workshop material

In the frame of the MainstreamBIO capacity building workshops, all partners running a MIP gained dedicated training on how to successfully organize the capacity building workshop. After that, farmers, producers and local actors were coached through the capacity workshop by expert trainers within each MIP in order to better understand the expectations from innovation support service and how to make the best use of the digital toolkit. A short Questionnaire was shared with the workshop participants to express their opinion on the toolkit's functionalities. The collected data, both qualitative and quantitative, were captured in documents and aggregated in a spreadsheet.

Capacity building workshop personal data

Stakeholders within each MIP participated and attended the trainings during capacity building workshops, while expert trainers contributed to the successful delivery of the knowledge to stakeholders. In order to perform this activity, personal data of stakeholders and expert trainers were

collected and recorded on participant lists and spreadsheets for any analysis and usage by partners, delimited by consent forms.

Partners' portfolio of technical and business services

In order to enhance the market uptake of small-scale bio-based solutions, hands-on support services were delivered to multi-actor partnerships in line with their tailored innovations support roadmap. The services offered to each include a blend of business and technical support drawing from a portfolio of services employed by consortium partners for years now successfully in practice. At the end of the Project's first innovation round, the portfolio was fine-tuned based on feedback collected (see Deliverable D2.6). The generated data for the service Portfolio is qualitative and recorded in the form of a services list, incorporating technical data, business and financing information.

Generated tailored innovation roadmaps

Using as input the "Promising cases and needs" dataset, MIPs contacted the actors of each selected case to inform them about which innovation service they were granted, their expected involvement and elaborate a tailored innovation roadmap for each one. These generated roadmaps are built on each selected case's attributes and needs so actors can easily understand, adopt and benefit from them. The generated data are mostly qualitative and will be provided in standard document texts as reports.

Networking events and demo days material

During MainstreamBIO, connections between the supported multi-actor partnerships and suitable partners as well as the engagement of new actors regarding the bioeconomy arised during two networking events and one demo day organized by each MIP. The aim of the networking events is to showcase the deployment of solutions and to catalyse connections between the supported multi-actor partnerships and suitable partners (customers, consumers, tech providers or investors) as well as to inspire further actors to get engaged in and support the bioeconomy.

Mostly qualitative insights were collected by the fulfilment of networking events and demo days and were recorded in standard document texts, participant lists and minutes, while captured photographs and videos accompany them. In the reporting template, organizers of the networking events and demo day have supported the task leader FBCD with information about number of participants and associated stakeholder group. That is, information was requested regarding the total number of participants and allocations to e.g. farmers, producers, regional actors, industry experts, academics, technology enthusiasts and entrepreneurs. General impressions and remarks were also requested in the reporting document as well as a short description of content and outcome of the event including detailed information about demo or visit site. The key outcomes of the network events in both M24 and M36 as well as the demo day, will be integrated in D3.3 (M36).

Networking events and demo days personal data

Aiming to create connections between supported multi-actor partnerships and suitable partners as well as to inspire further actors to get engaged in MIPs led to a collection of the respective stakeholders' personal data. Data were written in participant lists and Consent forms were used for data collection to comply with GDPR and, by extension, the ability for analysis and utilization. Participant list included information about name, surname, organisation, type of stakeholder and signature.

Campaigns webinar material

In order to enhance the understanding of bioeconomy and small-scale bio-based solutions, two regional awareness raising, and education campaigns were deployed by MIPs. Data were collected during campaigns based on the baseline specifications, defined in each region. While no formal action plans were produced, campaign strategies and adaptations were documented and analysed across rounds. The webinars were promoted through institutional and social media channels and included expert presentations and panel discussions. Data were collected through webinar registration and attendance tracking, participant feedback, and demographic analysis. Materials were recorded in various formats, including video recordings (.mp4), notes, feedback summaries (.docx), and spreadsheets (.xlsx). The data's nature is mostly qualitative, capturing engagement levels, participant feedback, and demographic analysis.

Campaigns in-person event material per MIP

In-person awareness raising events were organised across two rounds by the MIP to promote better understanding of the bioeconomy and small-scale bio-based solutions. These events included workshops, site visits, field demonstrations, and satellite events embedded within larger public gatherings. Data were collected through pre- and post-event reports, participant feedback surveys, photographs, attendance lists, and promotional materials. These materials were stored in formats such as text documents (.docx), spreadsheets (.xlsx), and images (.jpg). While no formal action plans were produced as separate action document, the evolution of campaign strategies and stakeholder targeting were documented and analysed to inform future campaign outreach planning.

Performance and impact

During the MainstreamBIO Project a performance monitoring and impact assessment system was developed in order to evaluate and improve the innovation support services and digital toolkit. The structure of the monitoring and impact assessment system consists of (i) specific objectives, (ii) categories, (iii) project activities, (iv) indicators, and (v) methods to collect data, and it is structured in a spreadsheet.

Regional scale up workshop material

In the frame of MainstreamBIO Project, regional scale-up workshops took place in each MIP with a view of exchanging experiences gained through the project, brainstorming and discussing case studies and success stories developed by the project between multi-actor partnerships and stakeholders. The material collected through the workshop's activities is mostly of qualitative nature and stored in reporting type of format. Videos and photographs were captured, insights and minutes were noted in standard text documents, as well as participant lists were created in spreadsheets or text documents.

Regional scale up workshop personal data

During MainstreamBIO regional scale up workshops, stakeholders and multi-actor partnerships participated in and exchanged experiences between them. For the purpose of regional scale up workshops, personal data from participants were collected and recorded in participant lists format and spreadsheets filled with particulars. All the data collected are aligned with GDPR, and consent forms were used for the needs of data processing.

Learning workshops material

In the frame of MainstreamBIO Project, each MIP organized one mutual learning workshop with the aim of cross-regional sharing of good practices and knowledge gained. Part of the workshops were field visits for stakeholders coming from different regions than the local area and MIP respectively.

In the reporting template, organizers of the mutual learning workshops have supported the task leader FBCD with information about number of participants and associated stakeholder group. That is, information was requested regarding the total number of participants and number of international participants (if any). Allocation among different stakeholder groups like farmers, producers, regional actors, industry experts, academics, technology enthusiasts and entrepreneurs were also provided. General impressions and remarks were also requested in the reporting document as well as information about the potential of creating international contacts via the workshop. The key outcomes of the workshops and missions will be outlined in D4.2.

Learning workshops personal data

Representatives of linked networks and initiatives were invited to participate in the mutual learning workshops, visit deployment sites of small-scale bio-based solutions in rural areas and attend local demonstrations. The implementation of the above activities required a collection of personal data from the participating stakeholders, which were written in participants lists. Participant list included information about name, surname, organisation, type of stakeholder and signature. Consent forms were used, with the purpose of alignment with GDPR and the ability to process data by partners.

Policy insights set

Building on WP1 and WP2 outcome coupled with desk research, an initial Policy insights set is generated, which will be refined during the project and supported by interview questionnaires with key stakeholders. Data generated are qualitative and written in a standard text document. The final set of Policy Insights is called “Joint Policy Recommendations and Briefs” and will be refined according to EU policy roundtable outcomes and comments as well as insights from other projects.

MainstreamBIO Replication Guide and Toolkit data

MainstreamBIO Replication Guide and Toolkit is built on insights from Tasks 4.1, 4.2 and 4.3 and its development will help interested regional actors, with practical guidelines and recommendations, to set up MIPs or better attune their innovation support towards bioeconomy, but also, generated data fueled the development of the final version of MainstreamBIO Replication Guide and Toolkit. Data generated using the MainstreamBIO Replication Toolkit will be recorded in standard document.

Joint policy recommendations and briefs from the EU policy roundtable

A dedicated EU policy roundtable was organized by partners and meaningful information and insights were collected from discussions during its implementation. Provided data contributed to the elaboration of the final set of “Joint Policy Recommendations and briefs” as well as the refinement of the MainstreamBIO Replication Guide and Toolkit. The collected data were qualitative and written in text documents to be incorporated in D4.8. Additionally, personal data were captured in participants list.

Data collected for practice abstracts using EIP-AGRI format

Data was collected from the project results and 30 practice abstracts were generated, including relevant information for adopting small-scale bio-based solutions and nutrient recycling practices as well as information on how the project’s results can be practically utilized. The EIP-AGRI format was used to generate the practice abstracts which are stored in spreadsheets (.xlsx), including several diagrams and conceptual photos (.jpeg).

Business models analytics

To elaborate business plans for MIPs and toolkit, data were collected from stakeholders through surveys and interviews for the purpose of assessing, refining and validating the sketched business models. Stakeholders in each MIP assessed the business models and gave feedback regarding specific criteria to their interests and market fit. Data provided through feedback is both qualitative and quantitative and it is business information written in standard text document accompanied by interview notes, surveys and spreadsheets.

AB feedback and member list

During the implementation of MainstreamBIO project, there were several project key stages where guidance and feedback from experts on the field was requested to successfully deploy the respective activities. An Advisory Board (AB) composed of experts provided the necessary guidance and analysis of MIPs activities' outcomes, aiming to monitor, evaluate, refine and validate MainstreamBIO support services, digital toolkit and business models for regional MIPs. Data collected via AB activities and involvement, such as discussions and digital validation workshops, are comments and notes written in standard document texts. Additionally, collected data include information such as name, surname, age, region, experience, education and expertise and is stored in a member list (.xlsx). Finally, consent forms were used for the ability to process AB members' personal data and specific terms of reference have been developed to provide the basis for the activities of the AB.

Material collected from project management and coordination

During the implementation phase of MainstreamBIO project, data was collected from management and coordination activities. More specifically, the collection/generation of data comes up from partners' coordination and communication, Quality Assurance processes, progress monitoring, and risk analysis. The above data series is both qualitative and quantitative, and stored in various types of formats, including noted minutes, written insights in text documents, reports presenting outcomes and progress of activities, and contact details.

Data collected/generated through direct input methods were stored in formats which allow the documentation of information from various files and documents in a single location. By doing so, it is possible to circulate raw data from transcripts, as well as text, images, and other objects from other files to one document file or multiple tabs of a single spreadsheet. Moreover, the formats can be immediately converted into open and machine-readable formats (e.g. .xml and .csv) boosting the interoperability and re-usability of the data produced in the framework of MainstreamBIO.

2.2.2 *Data collected for / generated by the utilization of the MainstreamBIO digital toolkit*

The MainstreamBIO digital Toolkit aims to better match bio-based technologies, social innovations and good nutrient recycling practices with available biomass and market trends as well as to enhance understanding of the bioeconomy with a suite of educational resources building on existing research results and tools. A collection of 6 tools was developed and integrated into the MainstreamBIO digital Toolkit. This Toolkit consists of: i) Catalogue of small-scale bio-based solutions (technologies, business models and social innovations), ii) Collection of best practices for nutrient recycling, iii) BioForum, iv) Decision Support System, v) Bioeconomy Repository and vi) Tool Library. Along these

lines, users of various roles, such as farmers, foresters and other biomass producers, bioeconomy value chain actors, technology providers, supporting environment agents, research and academia and policy makers, are expected to utilize the functionalities offered by the MainstreamBIO digital Toolkit which in turn will generate valuable data for consortium partners.

Along these lines, data collected by the users of the MainstreamBIO digital Toolkit includes data that users of the Toolkit will provide in order to register, create a profile and use the Toolkit (information such as name, contact details, location and organisation). It also includes data generated based on tracking the activity of users across the MainstreamBIO digital Toolkit that will be utilised for identifying areas for improvement. The goal is to support a data-driven process for improving the Toolkit by identifying processes that need enhancements and/or functionalities that are of low or no interest that could be deprecated. Activity data will be collected for all roles and stand to not only streamline processes and functionalities, but also allow the partners to identify the most prominent features required and utilised by participants, which will subsequently support the business modelling activities of the project, fostering the sustainability of the MainstreamBIO digital Toolkit.

Further details on data collected and/or generated from the use of the different constituent tools comprising the MainstreamBIO digital toolkit are concisely outlined in the following subsections.

Automatically collected data and platform usage analytics

In addition to the data provided by users upon registration and providing their email and password, MainstreamBIO digital Toolkit also collects data automatically through GDPR-compliant analytics platforms, specifically Google Analytics (GA4) and Microsoft Clarity. These platforms allow the consortium to generate actionable insights by monitoring and analysing user engagement across the Toolkit's digital environment.

The types of data collected through these analytics platforms include, but are not limited to, the following:

- **Page visit history**: Identification of which pages within the Toolkit a user has visited and how frequently.
- **Scroll depth tracking**: Measurement of how far users scroll down individual pages to determine content engagement levels.
- **Click activity**: Logs of all click interactions, including:
    - Clicks on buttons, links, tool modules, and navigation elements.
    - Dead clicks, where users click on non-interactive elements or interface parts that do not produce any effect, indicating confusion or interface inefficiencies.
- **Session duration and time spent per tool**: How long a user remains active on a specific tool or section.
- **Entry and exit pages**: The first and last pages visited in a session, helping to identify user pathways.
- **Device, browser and screen resolution**: Technical parameters useful for responsive design improvements.
- **Heatmaps and session replays**: Provided via Microsoft Clarity, this data allows visual mapping of user behavior, showing where users move their mouse, hover, and interact most.

These datasets are used strictly in anonymised form and for the sole purpose of improving the usability, performance, and structure of the Toolkit. They help identify underutilised features,

confusing user flows, and high-interest content that may warrant further development. Importantly, no personal or sensitive data is captured through these platforms.

Data collected from registered users interacting with Toolkit features

Beyond anonymous analytics, further usage data is collected from registered users of the Toolkit, particularly in tools where gamification or cumulative content exposure is applied. A prime example of this is the Catalogue of small-scale bio-based solutions, where the system tracks user-specific interactions in order to enhance user experience and engagement.

In the Catalogue, users can explore various small-scale technologies, business models, and social innovations. As part of the user experience design, a progress tracking mechanism is embedded that logs the number of unique Catalogue entries viewed by each user. For instance, the Catalogue contains 68 distinct solutions and a user views a new one not previously accessed, an internal counter is incremented. This enables the following:

- **Gamification of learning and exploration**: Users can see how many entries they have explored, encouraging further interaction and discovery.
- **Personalised dashboard display**: In each user's account page, a visual indicator displays their progress in exploring the Catalogue.
- **Enhanced behavioural insights**: By analysing what type of content users tend to focus on (e.g., technology types, regional barriers), the project can better understand stakeholder needs and tailor further development.
- **Support for business modelling activities**: Aggregated insights into which content is most frequently viewed or completed by users of specific profiles (e.g., farmers vs. technology providers) help inform value propositions and future sustainability plans.
- In tools such as the Decision Support System or Bioeconomy Repository, similar interaction metrics can be captured at an aggregate level—e.g., how many Decision Support Systems the user has created.
- On the Account page, users can also rate our toolkit. We collect their responses there, including CSAT (Customer Satisfaction), CES (Customer Effort Score), NPS (Net Promoter Score), and any additional feedback they provide.

All data collection practices strictly adhere to GDPR principles, ensuring that any personally identifiable information is collected only with informed consent and securely stored in accordance with EU data protection regulations.

2.2.3 *Data collected / generated from dissemination, communication and clustering activities*

Website analytics

The MainstreamBIO website is supported by tracking and analytics software to better understand visitors' interactions with the website towards improving its functionality, while user privacy is protected. To identify registered users on the website, cookies are used by Google Analytics to provide them with the possibility to comment using their profile and to edit their newsletter preferences. Cookies created by Google Analytics start with: _ga, _gat, _gid. Users have the ability to delete or block website cookies. Moreover, anonymous cookies providing information about users' location and what pages they visit are used. These cookies sometimes collect anonymous statistics

about the user (such as gender, age, geographical location, and interests) and the data is stored by the analytics services that we use. These cookies also gather data regarding what pages users visit, how long they stay on the page, what videos they watch or files they download. Tracking cookies from social media networks such as Facebook, X, YouTube and LinkedIn are also used, for customised advertising targeting users of the MainstreamBIO website on these platforms and to assess the performance of ads on these platforms. The data collected by these platforms is anonymised, which means that we cannot see the social media profiles of users.

Social Media statistics (including X and LinkedIn)

This data is collected/generated through a periodic monitoring of the project's social media statistics (including X and LinkedIn) with a view to measuring and assessing the performance and results of the project's social media activity in terms of dissemination and communication. With that in mind, the data are both qualitative as well as quantitative in nature addressing the metrics reached on each channel (e.g., followers, impressions etc.). Additionally, this data is followed by an analysis of the results stemming from it and possible ways to improve the results so as to reach the project's targets. All in all, the data is stored in a spreadsheet (.xlsx) while at the same time the analysis of the results is stored in a standard document text (.docx).

Data collected from project events

This data were collected during the implementation of the project through: (i) the different events (e.g. co-creation workshops, train-the-trainer workshop, regional knowledge transfer days, clustering webinars, final event, etc.) organised by MainstreamBIO (either alone or jointly with other projects or initiatives) consisting of the participants lists that encloses demographic information about the participants; and (ii) the participation of MainstreamBIO partners in relevant third party events in order to reach out and engage stakeholders, thus collecting general information about the events attended and their outreach.

Along these lines, these data were collected so as to keep track of the results of activities in events for stakeholder engagement and provide the opportunity for project partners to report on these activities. Moreover, these data are updated every time a partner attends an event, or a partner organises an event. Finally, the data are both quantitative and qualitative in nature and stored in a standard spreadsheet (.xlsx).

Newsletter subscription (e.g., contact details of subscribers)

In order to enhance the dissemination activities of the project, a dedicated newsletter subscription section has been included in are foreseen on the project's website. The subscription form facilitates the collection of this data. Any interested stakeholder voluntarily provided his/her contact details in a dedicated sign-up form, so as to receive the most up-to-date news and outcomes of the project. A newsletter was sent to subscribers once per 6 months. The data were collected so as interested stakeholders can be informed about the MainstreamBIO as well as its digital Toolkit. Along these lines, the data is comprised of a list of stakeholders along with their basic contact information: (i) email address, (ii) first and last name, (iii) country, (iv) type of organisation, (v) region and (vi) gender. A copy of this contact list is stored on MailChimp's (http://mailchimp.com) server which is used for e-mail campaigns and newsletter distribution. All personal information included in this contact list is used and protected according to MailChimp's Privacy Policy.

Data from dissemination and communication activities

These data were collected through the periodic monitoring of the project's miscellaneous dissemination activities such as publications in relevant journals, posts in blogs, etc. The data consists of a list of publications and posts published by the consortium partners. The purpose of collecting this data is to assess the outreach and efficiency of the dissemination activities during the implementation of the project. For this purpose, a template was circulated with all partners to recommend activities to be performed and to log the activities they performed. The template was also online provided so as the partners can directly update their input. Finally, all the data is integrated into a spreadsheet (.xlsx).

2.3 Origin of data and re-use of pre-existing data

In the context of MainstreamBIO, **new data** are collected/generated by partners as well as external stakeholders participating in the activities of the project and/or using its Digital Toolkit. With that in mind and aside from consortium partners, **external groups of stakeholders from which new data originates include**:

- Biomass producers (farmers, foresters, farmer's unions, producers' associations etc.)
- Bioeconomy value chain actors (agri-food industry, biobased industry, technology providers, retailers, wholesalers, logistics, consultants, advisors, rural entrepreneurs etc.)
- Policy makers at regional, national and EU level related to bioeconomy (regional and national public authorities, EU public authorities, regulatory bodies, advisory bodies etc.).
- Academic community in the field of bioeconomy and small-scale biobased technologies (e.g., field experts, R&D centres and facilities, universities and educational institutes, collaborative projects and initiatives etc.)
- Civil society (consumers, consumers' associations, NGOs, media representatives etc.)

Moreover, pre-existing data have been utilised within the context of MainstreamBIO as well. In particular, outputs from EU-funded projects (e.g., TRANSITION2BIO, POWER4BIO, BE-RURAL, RUBIZMO, BioRural, BRILIAN etc.), national projects, institutions and other relevant initiatives to a large extent provided a solid basis for MainstreamBIO. The MainstreamBIO consortium strives to make the most of and advance the work and results of these projects. Such activities include the development of the MainstreamBIO toolkit and more specifically the Bioeconomy repository and Tool library. The whole development process of the Decision Support System and the co-creation of the portfolio of innovation support services and the MainstreamBIO toolkit, builds upon the pre-existing knowledge, methodologies and outputs of other projects, initiatives and relevant institutions. Finally, consortium partners' internal knowledge, experience and expertise from their participation in other projects and initiatives directly and indirectly support the implementation of activities throughout the project.

2.4 Expected size of data

MainstreamBIO entails a series of activities aiming at setting the stage for and ultimately facilitating the development, piloting, evaluation, validation and fine-tuning of the MainstreamBIO digital toolkit and support services. With that in mind, the table that follows presents the different activities implemented during the course of the project in which data is collected/generated, the types and formats of the data as well as the expected size of the data.

Table 2: Expected size of data

No.	Name of activity	Data	Type of data	Format of data	Size of data (KB)
1	Extensive mapping of relevant stakeholders and selection of the key ones	Status of relevant stakeholders	Spreadsheets, Documents	.xlsx, .docx	100,000*
2	Analysis of needs, barriers and challenges to uptake and/or scale up small-scale bio-based solutions	Farmers', rural communities' and consumers' needs, socio-economic context and framework conditions	Interview Questionnaires, Spreadsheets	.pdf, .xlsx	24,700**
3	Analysis of attributes in the existing regional value chains	Status of value chains in Project focal regions	Spreadsheets, Interview Questionnaires, Guidelines, Shapefiles/Maps	.docx/ .xlsx, .vdx, .dwg, .shp	577,001**
4	Catalogue technologies, business models and social innovations for small-scale bio-based solutions	Catalogue on small-scale biobased technologies	Technological data, Spreadsheets, Catalogue list	.docx, .xlsx	5,394**
		Catalogue on business models	Spreadsheets, Business information, Catalogue list	.docx, .xlsx	5,394**
		Catalogue on social innovations	Notes, Spreadsheets, Catalogue list	.docx, .xlsx	5,394**
5	Collection of best practices related to nutrient recycling	Efficient and cost-effective nutrient recycling practices	Spreadsheets, Diagrams, Interview Questionnaires	.xlsx, .docx	9.595**
6	Organization of a co-creation workshop per MIP	Co-creation workshop material	Notes, Photos, Minutes, Participant lists	.docx, .jpg, .png, .pdf	20,082**
		Co-creation Workshop Personal data	Notes, Spreadsheets, Participant lists	.docx, .xlsx	1,000*
7	Development of methodology for matching	Feedback for the development of decision-making model	Survey	.csv, .docx, .xlsx	295**

No.	Name of activity	Data	Type of data	Format of data	Size of data (KB)
8	Development, upgrade and fine-tuning of the MainstreamBIO digital toolkit	Material from relevant Projects' toolkits	Spreadsheet	.xlsx	155**
		Automatically collected data and platform usage analytics	User generated/ machine generated	.csv, .pdf	1,500*
		Data collected from registered users interacting with Toolkit features	User generated/ machine generated	.csv	1,000*
9	Identification and selection of suitable cases of multi-actor partnerships per MIP	Promising cases and needs	Spreadsheets	.xlsx	193**
10	Organization of capacity building workshop	Capacity building workshop material	Questionnaires, Spreadsheet	.docx, .xlsx	23**
		Capacity building workshop personal data	Participant lists, Contact details	.docx, .xlsx	500*
11	Delivery of innovation support services	Partners' Portfolio of Technical and Business services	Technical data, Business information, Service lists	.docx, .xlsx	1,062**
		Generated tailored innovation roadmaps	Reports	.pdf	200,000*
12	Organization of networking events and demo days	Networking events and demo days material	Notes, Photos, Minutes, Participant lists	.docx, .jpg, .png, .pdf	15,000*
		Networking events and demo days personal data	Spreadsheets, Participant lists	.docx, .xlsx	1,000*
13	Deployment of regional awareness raising and education campaigns per round	Campaigns webinar material	Notes, Video recordings, Spreadsheets, Photos, Machine generated.	.docx, .xlsx, .mp4, .pdf, .jpg	100,000*
		Campaign In-Person events material	Machine generated, Pre and post event reports,	.docx, .xlsx .pdf,	10,000*

No.	Name of activity	Data	Type of data	Format of data	Size of data (KB)
			attendance list, Photos, Notes, Spreadsheets	.jpg	
14	Monitoring and evaluation of regional MIP	Performance and impact	Spreadsheets	.xlsx	29**
15	Organization of regional scale up workshop per MIP	Regional scale up workshop material	Notes, Photos, Minutes, spreadsheets	.docx, .xlsx, .jpg, .png, .pdf	19,294**
		Regional scale up workshop personal data	Participant lists, contact details	.docx, .xlsx	1,000*
16	Organization of cross-regional learning workshops	Learning workshops material	Notes, Photos, Minutes	.docx, .jpg, .png, .pdf	15,000*
		Learning workshops personal data	Participant lists, contact details	.docx, .xlsx	1,000*
17	Development and refinement of MainstreamBIO's Replication Guide and Toolkit and "Policy Insights" set	Policy Insights set	Report	.docx	1,817**
		MainstreamBIO Replication Guide and Toolkit data	Document	.docx	50,000*
		Joint policy recommendations and briefs from the EU policy roundtable	Notes, Participants lists	.docx, .xlsx	1,000*
18	Production of EIP-AGRI abstracts and audio-visual material	Data collected for practice abstracts using EIP-AGRI format	Abstracts, Diagrams, Spreadsheets	.xlsx	739**
19	Monitoring and assessment of the dissemination, communication, stakeholder engagement and clustering activities	Website analytics	Machine generated	.xlsx	20,000*
		Social media statistics	Machine generated	.xlsx	150*
		Project events data	Spreadsheets	.xlsx	150*
		Newsletter subscriptions	Spreadsheets	.xlsx	300*

No.	Name of activity	Data	Type of data	Format of data	Size of data (KB)
		Data from dissemination and communication activities	Spreadsheets	.xlsx	150*
20	Sketching alternative business models for the operation of MIPs	Business models Analytics	Survey, Spreadsheets, Business information	.docx, .xlsx	23**
21	Setting up the Advisory Board Experts	AB feedback and member list	Notes, Spreadsheets, Contact details	.docx, .xlsx	1,000*
22	Project management and coordination	Material collected from Project management and coordination	Contact Lists, Minutes, Reports, Spreadsheets, Notes	.docx, .xlsx, .pdf	15,000*

* The estimated expected size of the data is based on the adjusted size of data generated via similar activities of project partners in the past unless otherwise indicated

** The collection/generation of these data has already been completed, and the size of the data represents real values (not estimations)

2.5 Data utility

The stakeholders that may find meaningful utility for the data that were collected/generated or re-used by the project (both within as well as outside of MainstreamBIO's consortium) along with the benefits that could arise for them by utilizing this data, are concisely presented in the table that follows.

Table 3: Data utility

Stakeholder Groups	Data utility
Biomass producers (farmers, foresters, farmers' unions, producers' associations etc.)	The aim of MainstreamBIO, is to collect evidence and data to demonstrate the overall benefits of small-scale bio-based solutions and provide practical support through the innovation support services and the Toolkit for local biomass producers as well as for producer organisations etc. Knowledge of the project can be used by biomass producers to uptake and/or scale-up small-scale bio-based solutions as well as to elaborate a tailored to their needs sustainable business model. Information such as the decision support system, catalogues of technologies and best practices, digital tools and repositories will help them define their identity and establish a concrete bio-based business strategy. Finally, advisors working with biomass producers in the agri-food and forest industry will be able to utilise new data and tools of the project to support farmers, foresters and biomass producers in their transition to bioeconomy as well as to identify opportunities for diversification.
Bioeconomy value chain actors (agri-food industry, biobased industry, technology	MainstreamBIO acknowledges the importance of all actors in rural value chains and encompasses this dimension in the project's outcomes. Cataloguing and mainstreaming of small-scale bio-based solutions that will be conducted in MainstreamBIO will open up new markets and new opportunities for further

Stakeholder Groups	Data utility
providers, retailers, wholesalers, logistics, consultants, advisors, rural entrepreneurs etc.)	technological applications to the respective technology providers. In addition, the cases supported under MIPs will serve as ideal test beds for new technological developments, optimisations and implementations as well as for new endeavours in collaboration with the local bio-based industry, beyond the end of the project. Project data and support services will also highlight and bring knowledge and benefits for advisors, consultants, extension services and intermediaries such as logistics and retailers by helping them to network and to identify opportunities for complementing their current business circuits with small-scale bio-based practises
Policy makers at regional, national and EU level related to bioeconomy	Throughout its duration, MainstreamBIO is set on collecting and producing quantifiable evidence on the effectiveness and impact of the project's support measures and tools for the engagement of rural actors in MIPs as well as the market uptake of small-scale bio-based solutions, with a view to fostering their replication across rural Europe beyond the project's completion. Data generated to this end, may be of great utility for experts who design, implement and/or fund relevant policies. Data generated on designated policy activities (such as policy roundtable and policy briefs) will inform the design of measures for bringing the implementation of small-scale bio-based solutions into the mainstream across rural areas
Academic community in the field of bioeconomy and small-scale biobased technologies	In the frame of the MainstreamBIO project, interdisciplinary research is performed that largely builds upon prior research efforts to generate insights on small-scale bio-based solutions across rural Europe. Additionally, local actors are engaged in the project's research activities, covering the whole spectrum of perspectives in the rural community. Research data of the project that will be published in reports or peer-reviewed scientific journals as well as deposited in open repositories can be of great utility for scientists or/and experts in the field, ensuring continuity of effort to advance the knowledge in the field. Moreover, the production of "practice abstracts" for the EIP-AGRI as well as audio-visuals and contributions to the Knowledge Centre for Bioeconomy will provide practitioners with accurate and at the same time practical knowledge, connecting science with practice.
Civil society	MainstreamBIO's activities take into account the perspective of general public, aiming to conduct specific awareness raising actions towards bioeconomy and through the bioeconomy repository that will be integrated into the MainstreamBIO digital toolkit.
Project partners	The data collected/generated during MainstreamBIO is the corner stone for project partners in order to produce evidence-based results and ultimately achieve the objectives of the project. Indeed, this data will enable the co-development, testing, validation and roll-out of new business and marketing models for small-scale bio-based solutions as well as of the MainstreamBIO Toolkit. At the same time, this data may be meaningful for project partners beyond the end of the project as well, enabling them to build and capitalise upon interesting ideas and opportunities that may emerge to ensure the long-term sustainability of the MainstreamBIO methodology and Toolkit.

3. FAIR Data

The guidelines on Data Management Plan[9] of the Commission emphasise the importance of making the data produced by projects funded under Horizon Europe **Findable, Accessible, Interoperable as well as Reusable (FAIR)**, with a view to ensuring its sound management. This means using standards and metadata to make data discoverable, specifying data sharing procedures and which data will be open, allowing data exchange via open repositories as well as facilitating the reusability of the data. With that in mind, the following sections of the DMP lay out the methodology followed in the framework of MainstreamBIO with respect to making data findable, accessible and interoperable as well as ensuring their preservation and open access, with a view to increasing its re-use.

3.1 Making data findable, including provisions for metadata

3.1.1 *Data discoverability and identification mechanisms*

MainstreamBIO places special emphasis on enhancing the discoverability of the data collected/generated or re-used during the course of its activities. **Open data produced during the implementation of the project are locatable by means of a standard identification mechanism.** Indeed, MainstreamBIO assigns globally resolvable **Persistent Identifiers (PIDs)** on any open data (more information on open data as well as the respective repositories we plan on employing in the context of the project are provided in section 3.2). An identifier is a unique identification code that is applied to a dataset, so that it can be unambiguously referenced. For example, a catalogue number is an identifier for a particular specimen and an ISBN code is an identifier for a particular book. PIDs are simply maintainable identifiers that allow for permanent reference to a digital object. In other words, PIDs are a way of giving digital resources, such as documents, images and data records, a unique and persistent reference number.

At the same time, data that are not open are deposited in a searchable resource (the cloud web storage service of the project) and well-tailored identification mechanisms are utilized as well, in the form of standard naming conventions that will safeguard their consistency and make them easily locatable for partners within the frame of the project. Along these lines, the following subsection provides further analysis on naming conventions and versioning.

3.1.2 *Naming conventions and versioning*

Following a consistent set of naming conventions in the development of the project's data files can greatly enhance their searchability. With that in mind, MainstreamBIO creates consistent data file names that provide clues to their content, status and versioning, while also increasing their discoverability. In doing so, project partners as well as interested stakeholders can easily identify a file as well as classify and sort them.

According to the UK Data Archive (UK Data Service, 2017b), a best practice in naming convention is to create brief yet meaningful names for data files, that facilitate classification. The naming convention should avoid the utilisation of spaces, dots and special characters (such as & or !),

[9] https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

whereas the use of underscores is endorsed, to separate elements in the data file name and make them understandable. At the same time, versioning should be a part of a naming convention to clearly identify the changes and edits in a file.

With that in mind and to facilitate the reference of the datasets that are and will be produced during its implementation, MainstreamBIO employs a **standard naming convention that integrates versioning and takes into account the possibility of creating multiple datasets** during an activity that entails data collection/generation. Indeed, MainstreamBIO's naming convention considers this issue and addresses it by employing a unique element that captures the number of datasets that are produced under the same activity.

In particular, the **naming convention employed by the project is described below**.

[Name of project] _ [Name of Study] _ [Number of dataset] _ [Issue Date] _ [Version number]

- **Name of project:** MainstreamBIO
- **Name of Study:** A short version of the name of the activity for which the dataset is created.
- **Number of dataset:** An indication of the number assigned to the dataset.
- **Issue Date:** The date on which the latest version of the dataset was modified (YYYY.MM.DD.).
- **Version number:** The versioning number of a dataset.

With the above in mind, some **indicative examples** to showcase the naming structure that is applied in the context of MainstreamBIO are provided below:

- **MainstreamBIO_StakeholdersStatus_Dataset1_2023.01.31_v1 –** The first dataset generated from the mapping of relevant stakeholders conducted to select the key ones and set up the Multi-Actor Innovation Platforms. This is the first version of the dataset that was last modified on the 31st of January 2023 (31/01/2023).
- **MainstreamBIO_NeedsBarriersChallengesAnalysis_Dataset2_2023.31.03_v2 –** The second dataset created through desk study and interviews with stakeholders, in order to identify and analyse the farmers' and rural communities' needs, perceptions, socio-economic context and framework conditions. The last modification of this dataset, which in this case produced the second version of the dataset, was on the 31st of March 2023 (31/03/2023).

Versioning of information makes a revision of datasets uniquely identifiable and can be used to determine whether and how data changed over time and to define specifically which version the creators/editors are working with. Moreover, effective data versioning enables understanding if a newer version of a dataset is available and which are the changes between the different versions allowing for comparisons and preventing confusion. In this context, **a clear version number indicator is used in the naming convention** of every data file produced during MainstreamBIO in order to facilitate the identification of different versions.

3.1.3 *Metadata allowing discovery*

In addition to consistent naming conventions and versioning, the project also follows a metadata-driven approach so as to allow discovery and further increase the searchability of the data, while also facilitating its understanding and re-use. Metadata is defined as "data about data" or "information

about information"[10]. It is usually structured textual information that describes the creation, content, or context of a digital resource – be it a single file, part of a single file, or a collection of many files. Metadata is the glue which links information and data across the world wide web. It is the tool that helps people to discover, manage, describe, preserve and build relationships with and between digital resources[11].

In particular, three distinct types of metadata exist[12], as presented below:

- **Descriptive metadata**, used to identify and describe collections and related information resources. Descriptive metadata at the local level helps with searching and retrieving. In an online environment, descriptive metadata helps to discover resources. Most of the times includes information such as the title, author, date, description, identifier, etc.
- **Administrative metadata** is used to facilitate the management of information resources. It is helpful for both short-term and long-term management and processing of data. This is information that will not usually be relevant to the public but will be essential for staff to manage collections internally. Such metadata may be location information, acquisition information, etc.
- **Structural metadata** enables navigation and presentation of electronic resources. It documents how the components of an item are organized. Examples of structural metadata could be the way in which pages are ordered to form chapters of a book, a photograph that is included in a manuscript or a scrapbook or the JPEG and TIF files that were created from the original photograph negative, linked together.

With that in mind, **data produced/used during MainstreamBIO is discoverable with metadata** suitable to its content and format. The project employs **metadata standards** to produce rich and consistent metadata with a view to supporting the long-term discovery, use and integrity of its data More details on the metadata standards adopted by MainstreamBIO are provided in the following subsection.

3.1.4 *Standards for metadata creation*

MainstreamBIO employs standards for creating metadata for data collected/generated by the project, with a view to describing it with **rich metadata** and thus improving their discoverability and searchability. In result, effective searching, improved digital curation and easy sharing are realized. In addition, the metadata standards applied enable the integration of metadata from a variety of sources into other technical systems.

With that in mind, for **MainstreamBIO's openly available data,** the metadata standards provided by **Zenodo are used**. Zenodo (https://zenodo.org/) is an open repository developed under the European OpenAIRE programme and operated by CERN. The repository along with its metadata standards have been adopted and are being used by numerous research communities, enabling them to deposit research papers, datasets, software, reports as well as other research outputs. Along these lines, Zenodo creates metadata to accompany the datasets that are uploaded to the repository, extending their reach to a wider audience of interested stakeholders. This metadata can be exported

[10] Huxley, L., & Jacobs, N. (2004). Online information services in the Social Sciences. Oxford: Chandos.
[11] Foulonneau, M., & Riley, J. (2008). Metadata for digital resources: Implementation, systems design and interoperability. Oxford: Chandos.
[12] Caplan, P. (2003). Metadata fundamentals for all librarians. Chicago: American Library Association.

in several standard formats, including open and machine-readable ones (such as MARCXML, Dublin Core, and DataCite Metadata Schema), following the guidelines of OpenAIRE and are stored by Zenodo in JSON-format according to a defined JSON schema[13].

Project **data not open, are also annotated with open and machine-readable metadata** following the **Dublin Core Metadata standard**. The Dublin Core Metadata element set (certified with the ISO Standard 15836) is a standard which can be easily understood and implemented and as such, is one of the best-known metadata standards. It was originally developed as a core set of elements for describing the content of web pages and enabling their search and retrieval. Among the reasons for selecting this standard is also the fact that **Zenodo is compatible with Dublin Core metadata formats** and thus any initially closed data, that may become open at a later stage (e.g., due to a change in the consortium's policy), will not lose its metadata. With that said, the Dublin Core metadata standard is a simple yet effective set for creating rich metadata that will describe a wide range of resources. The fifteen element "Dublin Core" described in this standard is part of a larger set of metadata vocabularies and technical specifications maintained by the Dublin Core Metadata Initiative (DCMI)[14]. The full set of vocabularies also includes sets of resource classes, vocabulary encoding schemes, and syntax encoding schemes. **An online metadata generator is used** to produce the different metadata elements required (dublincoregenerator.com).

3.1.5 *Search keywords included in the metadata*

The project's data are provided with search keywords with a view to optimizing its findability as well as its ultimate re-use by interested stakeholders during its entire lifetime. With that in mind, the metadata standards employed by MainstreamBIO provide opportunities for tagging the data collected/generated and its content with keywords. In general, keywords are a subset of metadata and include words and phrases used to name data. In the context of MainstreamBIO, keywords are used to add valuable information to the data collected/generated as well as to facilitate the description and interpretation of its content and value.

Along these lines, the project's strategy on keywords is underpinned by the following principles:

- The who, the what, the when, the where, and the why should be covered.
- Consistency among the different keyword tags needs to be ensured.
- Relevant, understandable and clear keywording ought to be sought.

In general, the keywords comprise terms related small-scale bio-based solutions, bioeconomy value-chain actors and biomass production. The keywords accurately reflect the content of the datasets and avoid words used only once or twice within them.

3.1.6 *Offering metadata that can be harvested and indexed*

We know that the wild diversity of the metadata accompanying open data across the plethora of online repositories (e.g., disciplinary archives, institutional repositories, open access journals) can

[13] For more information on the JSON format and the JSON schema visit the following website: http://json-schema.org/

[14] Retrieved from: https://www.dublincore.org/

Funded by the European Union

serve as barriers to their findability and sharing amongst different research communities. This is why in the context of MainstreamBIO we have aligned our metadata creating approach with the **Open Archives Initiative (OAI)**, which promotes the use of a standard protocol for metadata harvesting, designed for better sharing and retrieval of data residing in distributed repositories. This protocol, namely the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH)[15] promotes interoperability standards that facilitate efficient dissemination of data amongst diverse communities[16].

All structured **metadata linked to the project's open data are offered in a way that can be exported and harvested** via the OAI-PMH thanks to the standards we adopt for metadata creation (see section 3.1.4). The same standards also help us produce **metadata that facilitate indexing**. For instance, the use of the Dublin Core Metadata Standard (as further elaborated in section 3.3) provides a vocabulary of concepts with definitions in open-machine readable formats that enable easier indexing of metadata. Along these lines, there are several tools[17] which implement the Archives Initiative Protocol for Metadata Harvesting, such as **Arc source**, **EnhancedOAIServer** and **eprints.org**, and can be used for harvesting our data by different repositories.

MainstreamBIO's openly available data are uploaded in Zenodo, which is in line with FAIR principles, including "To be Findable" principle. Metadata of each record uploaded in Zenodo is indexed and searchable directly in Zenodo's search engine immediately after publishing. Metadata of each record is sent to DataCite servers during DOI registration and indexed there.

3.2 Making data accessible

3.2.1 *Repository*

The **data produced by MainstreamBIO and deemed open for sharing and re-use, are deposited to and securely stored by Zenodo** (www.zenodo.org), **which constitutes an open data repository** and has been specifically selected to enable access to the project's open data free of charge. In fact, Zenodo builds and operates a simple service that enables researchers, scientists, EU projects and institutions, among others, to share and showcase research results (including data and publications) that are not part of the existing institutional or subject-based repositories of the research communities. It accepts any file format, promotes peer-reviewed openly accessible research, allows the creation of own collections and it is available free of charge both for MainstreamBIO to upload and share data as well as for other stakeholders to explore, download and re-use this data.

Moreover, as a digital repository, Zenodo registers **Digital Object Identifiers (DOIs)** for all submitted data through DataCite[18], which is the leading global non-profit organisation that provides PIDs (and specifically DOIs) for research data, and preserves these submissions using the safe and trusted foundation of CERN's data centre, alongside the biggest scientific dataset in the world, the LHC's

[15] Retrieved from: https://www.openarchives.org/pmh/

[16] Corrado, E.M. (2005) 'The importance of open access, open source, and open standards for libraries', Issues in Science and Technology Librarianship.

[17] For more information about the tools implementing the OAI-PMH: https://www.openarchives.org/pmh/tools/

[18] For more information on DataCite: https://www.datacite.org/

100PB Big Data store[19]. This means that the data preserved in Zenodo will be accessible for years to come, and the DOIs will function as perpetual links to the resources. DOIs remain valuable since they are future proofed against Uniform Resource Locator (URL) or even protocol changes, through resolvers (such as DOI[20]). With that in mind, an example of a DOI retrieved from this open repository follows the structure illustrated in Figure 1.

Figure 1: Typical DOI created by Zenodo

3.2.2 *Data*

Openly available and closed data

MainstreamBIO, in line with FAIR principles of data management in the context of Horizon Europe, adopts the good practice of making data as open as possible and as closed as necessary. This calls for partners to disseminate their data that have the potential to offer long-term value to external stakeholders and do not harm the confidentiality and privacy of the stakeholders that contributed to the collection/generation of this data, maximising the beneficial impact of MainstreamBIO.

Only anonymised and aggregated data are made open to ensure that data subjects cannot be identified in any reports, publications and/or datasets resulting from the project. The relevant project partner in each case undertakes all the necessary anonymisation procedures to anonymise the data in such a way that the data subject is no longer identifiable (more details on data management responsibilities are provided in Section 5.2).

To this end, it is important to keep in mind that during the process of data anonymisation, data identifiers need to be removed, generalised, aggregated or distorted. Moreover, **anonymisation is different from pseudonymisation**, which falls under a distinct category in the GDPR - anonymisation theoretically destroys any way of identifying the data subject, while pseudonymisation allows for the data subject to be re-identified with additional information. Along these lines, the table which follows provides a **list of good practices** for the anonymisation of quantitative and qualitative data derived from the tour guide on data management of the Consortium of European Social Science Data Archives (CESSDA).

Table 4: Good practices for data anonymisation

Type of data	Good practices
Quantitative data	• Remove or aggregate variables or reduce the precision or detailed textual meaning of a variable. • Aggregate or reduce the precision of a variable such as age or place of residence. As a general rule, report the lowest level of geo-referencing that will not potentially breach respondent confidentiality. • Generalise the meaning of a detailed text variable by replacing potentially disclosive free-text responses with more general text.

[19] Retrieved from: https://www.software.ac.uk/tags/zenodo

[20] Retrieved from: http://dx.doi.org/

Type of data	Good practices
	• Restrict the upper or lower ranges of a continuous variable to hide outliers if the values for certain individuals are unusual or atypical within the wider group researched.
Qualitative data	• Use pseudonyms or generic descriptors to edit identifying information, rather than blanking-out that information. • Plan anonymisation at the time of transcription or initial write-up, (longitudinal studies may be an exception if relationships between waves of interviews need special attention for harmonised editing). • Use pseudonyms or replacements that are consistent within the research team and throughout the project. For example, using the same pseudonyms in publications and follow-up research. • Use 'search and replace' techniques carefully so that unintended changes are not made, and misspelt words are not missed. • Identify replacements in text clearly, for example with [brackets] or using XML tags such as <seg>word to be anonymised</seg>. • Create an anonymisation log (also known as a de-anonymisation key) of all replacements, aggregations or removals made and store such a log securely and separately from the anonymised data files.

Source: Tour guide on data management of the CESSDA[21]

With that in mind, the following table presents the data collected/generated during the course of the project that are and will be made openly available. In case certain data cannot be shared (or need to be shared under restrictions), a justification for that choice is provided.

Table 5: Data availability

No	Data	Availability	Notes
1	Status of relevant stakeholders	Closed	The stakeholder matrix includes personal data (names, organisation, age, etc.). Only aggregated statistics were used for reporting.
2	Farmers', rural communities' and consumers' needs, socio-economic context and framework conditions	Open & closed	All personal information data are aggregated/ anonymized before becoming openly available.
3	Status of value chains in Project focal regions	Open & closed	Data underpinning the mapping activities has been made available in a pseudonymized format. Some of the data has been aggregated in the deliverable

[21] Retrieved from: https://www.cessda.eu/Research-Infrastructure/Training/Expert-Tour-Guide-on-Data-Management/5.-Protect/Anonymisation

No	Data	Availability	Notes
			report D1.3. Some of the relevant data for status of value chains is publicly available
4	Catalogue on small-scale biobased technologies	Open	-
5	Catalogue on business models	Open	-
6	Catalogue on social innovations	Open	-
7	Efficient and cost-effective nutrient recycling practices	Open	-
8	Co-creation workshop material	Open	-
9	Co-creation Workshop Personal data	Closed	The personal data of the people involved in the co-creation process will not be published since it is personal information. The data will be only used by the project partners to contact them in the project context.
10	Feedback for the development of decision-making model	Open	-
11	Material from relevant Projects' toolkits	Open	-
12	Automatically collected data and platform usage analytics	Open	-
13	Data collected from registered users interacting with Toolkit features	Open	-
14	Promising cases and needs	Open & Closed	Evaluation material, meeting notes, business information and contact details, spreadsheets that were used to capture data will be closed since it contains detailed business information. A summary of promising cases and needs for each innovation round with general description of the actors and the case along with allocated innovation services will be openly available.
15	Capacity building workshop material	Open	-
16	Capacity building workshop personal data	Closed	Personal data will be kept closed according to GDPR. At registration for events/workshop, individual consent forms will be formulated for each specific event and collected from each participant.

No	Data	Availability	Notes
			Forms will be stored according to GDPR requirements.
17	Partners' Portfolio of Technical and Business services	Open	-
18	Generated tailored innovation roadmaps	Closed	The generated tailored innovation roadmaps will not be published since they will contain detailed business information from cases. The data will only be used by the project partners to provide adequate innovation service within the project. Only a few anonymized statistics were used in D3.1 and D3.3 which are public.
19	Networking events and demo days material	Open	The outcome of the network events in both M24 and M36 as well as the demo day, will be integrated in D3.3 (M36).
20	Networking events and demo days personal data	Closed	Personal data will be kept closed. Informed consent forms were also obtained from participants, according to GDPR.
21	Campaigns webinar material	Open & Closed	Webinar recordings and promotional materials will be publicly available, along with aggregated attendance analysis (by gender, stakeholder type, and country), as they will be included in the public deliverable D3.4 and shared through the MainstreamBIO Toolkit platform and Google Drive repository. The personal data of participants will remain closed.
22	Campaigns in person event material	Open & Closed	Campaigns in person event material (reports, aggregated survey results, and promotional photographs per MIP will be publicly available, since they will be included in D3.4 (public deliverable) and shared through Google Drive repository. The personal data of participants will remain closed.
23	Performance and impact	Open	-
24	Regional scale up workshop material	Open	The material does not contain personally identifiable data or sensitive information.
25	Regional scale up workshop personal data	Closed	Personal data of participants will remain closed, as well as confidential information of SMEs. Aggregated statistics may be

No	Data	Availability	Notes
			published for promotion and reporting purposes.
26	Learning workshops material	Open	The key outcomes of the workshops and missions will be outlined in D4.2.
27	Learning workshops personal data	Closed	Personal data will be kept closed. Informed consent forms were also obtained from participants, according to GDPR.
28	Policy Insights set	Open	-
29	MainstreamBIO Replication Guide and Toolkit data	Open	-
30	Joint policy recommendations and briefs from the EU policy roundtable	Open & Closed	Personal data of roundtable participants will remain closed; the contents of discussions will be used to formulate insights which are to be published
31	Data collected for practice abstracts using EIP-AGRI format	Open	-
32	Website analytics	Open & Closed	Website analytics will be available only to MainstreamBIO consortium and the EU Commission. In cases where statistics were shared, data were aggregated and anonymized before being made openly available (e.g., reported in the publicly available Dissemination and Communication Plan of the project), while personal data were treated as expected by the GDPR.
33	Social media statistics	Open & Closed	Social media analytics will be available only to MainstreamBIO consortium and the EU Commission. In cases where statistics were shared, data were aggregated and anonymized before being made openly available (e.g., reported in the publicly available Dissemination and Communication Plan of the project), while personal data were treated as expected by the GDPR. Specific types of social media analytics (e.g., number of followers) are publicly available on the project's SMAs.
34	Project events data	Open & Closed	Personal data of participants will remain closed, as well as confidential information of SMEs. Aggregated statistics may be

No	Data	Availability	Notes
			published for promotion and reporting purposes.
35	Newsletter subscriptions	Closed	Data from newsletter subscriptions will remain closed as it contains personal information and is useful only for internal reporting purposes.
36	Data from dissemination and communication activities	Open & Closed	Data collected from dissemination actions will be available only to MainstreamBIO consortium and the EU Commission. In cases there is a need to share information for dissemination and communication purposes through the project's website and social media accounts, any personal information will be anonymized before being made openly available. In cases where photos of participants are shared online, it will be done in the framework of a project's activity or after having the consent of participants.
37	Business models Analytics	Open	-
38	AB feedback and Member list	Open	-
39	Material collected from Project management and coordination	Closed	Data collected through management are going to be used only by the consortium for its coordination and communication needs

It is important to note that all personal data collected / generated are considered as closed data prior to their anonymisation and aggregation to safeguard the confidentiality of the data subjects.

Data accessibility and availability

Public access to the open data is available and free of charge through Zenodo, which automatically links to OpenAIRE. The data are fully accessible thanks to the included metadata and the search facility available on Zenodo. At the same time, closed data are intended to be stored and shared amongst authorised members of the consortium through cloud storage and file sharing providers which constitute structures that maintain and manage data and make these data accessible over a network, usually the internet (i.e., Google Drive). Before starting using these cloud services from providers situated both inside and outside the EEA, we have ensured that they comply with the relevant GDPR requirements.

The following table presents where data will be made accessible in the context of MainstreamBIO.

Table 6: Data accessibility

No	Data	Notes
1	Status of relevant stakeholders	No access to the dataset (personal data)
2	Farmers', rural communities' and consumers' needs, socio-economic context and framework conditions	The open data will be available on Zenodo & project's website, whereas the closed data will be shared in the cloud storage
3	Status of value chains in Project focal regions	The open data will be available on Zenodo, whereas the closed data will be shared in the cloud storage
4	Catalogue on small-scale biobased technologies	MainstreamBIO digital toolkit
5	Catalogue on business models	MainstreamBIO digital toolkit
6	Catalogue on social innovations	MainstreamBIO digital toolkit
7	Efficient and cost-effective nutrient recycling practices	website
8	Co-creation workshop material	website
9	Co-creation Workshop Personal data	No access to the dataset (personal data)
10	Feedback for the development of decision-making model	Zenodo
11	Material from relevant Projects' toolkits	MainstreamBIO digital toolkit, Zenodo
12	Automatically collected data and platform usage analytics	Zenodo
13	Data collected from registered users interacting with Toolkit features	Zenodo
14	Promising cases and needs	Zenodo
15	Capacity building workshop material	Zenodo
16	Capacity building workshop personal data	No access to the dataset (personal data)
17	Partners' Portfolio of Technical and Business services	website, Zenodo
18	Generated tailored innovation roadmaps	No access to the dataset (personal data) Anonymised statistics were used in D3.1 and D3.3 deliverables (Public)
19	Networking events and demo days material	Zenodo, website
20	Networking events and demo days personal data	No access to the dataset (personal data)

No	Data	Notes
21	Campaigns webinar material	Website Anonymised data are used in deliverable D3.4
22	Campaigns in-person event material	Website Anonymised data are used in deliverable D3.4
23	Performance and impact	Zenodo, website
24	Regional scale up workshop material	The open data will be available on Zenodo & project's website
25	Regional scale up workshop personal data	No access to the dataset (personal data)
26	Learning workshops material	Zenodo, website
27	Learning workshops personal data	No access to the dataset (personal data)
28	Policy Insights set	Zenodo, website
29	MainstreamBIO Replication Guide and Toolkit data	Zenodo, website
30	Joint policy recommendations and briefs from the EU policy roundtable	Zenodo, website
31	Data collected for practice abstracts using EIP-AGRI format	Zenodo, website
32	Website analytics	The open data will be available on Zenodo & project's website, whereas the closed data will be shared in the cloud storage
33	Social media statistics	The open data will be available on Zenodo & project's website, whereas the closed data will be shared in the cloud storage
34	Project events data	The open data will be available on Zenodo & project's website, whereas the closed data will be shared in the cloud storage
35	Newsletter subscriptions	Available only within the consortium through the cloud storage for closed data
36	Data from dissemination and communication activities	The open data will be available on Zenodo & project's website, whereas the

No	Data	Notes
		closed data will be shared in the cloud storage
37	Business models Analytics	Zenodo
38	AB feedback and Member list	Zenodo, website
39	Material collected from Project management and coordination	Available only within the consortium through the cloud storage for closed data

Restrictions on use

By utilising Zenodo for sharing the project's openly available data, MainstreamBIO can apply **different levels of accessibility** for this data taking into account any relevant issues (such as ethical, rules of personal data, intellectual property, commercial, privacy-related, security-related, etc.).

More specifically, **Zenodo offers the following levels of data accessibility**:

- **Open access**: Data remains available for re-use. Nevertheless, the level at which this data can be re-used is determined also by their accompanied licence for re-use (see subsection 3.4.3).
- **Embargoed status**: Access to the data will be restricted until the end of the embargo period, at which time, the content will automatically become publicly available.
- **Restricted access**: The data will not be made publicly available, and sharing will be made possible only by the approval of the project partner that has the responsibility for the data.
- **Closed access**: The data is protected against unauthorized access at all levels and only members of the consortium have the right to access it.

Project partners mainly use the open access level to disseminate the project's data amongst the interested stakeholders. Data that are not available for re-use are accessible only by authorised partners of MainstreamBIO's consortium and /or authorised personnel from the funding authority of the project.

Moreover, **MainstreamBIO ensures open access to all peer-reviewed scientific publications**, that were produced in the framework of the project. In particular, according to the Grant Agreement, MainstreamBIO:

- At the latest at the time of publication, deposited a machine-readable electronic copy of the published version or final peer-reviewed manuscript accepted for publication in a trusted repository for scientific publications.
- Ensured immediate open access to the deposited publication — via the repository — under the latest available version of the Creative Commons Attribution International Public Licence (CC BY) or a licence with equivalent rights. Moreover, for monographs and other long-text formats, the licence may exclude commercial uses and derivative works (e.g., CC BY-NC, CC-BY-ND).
- Ensured information is given – via the repository – about any research output or any other tools and instruments needed to validate the conclusions of the scientific publication.

Beneficiaries (or authors) must retain sufficient intellectual property rights to comply with the open access requirements.

Identity ascertainment and data access committee

The identity of stakeholders who want to access the data on Zenodo is not necessary to be ascertained, as the uploaded on Zenodo data are publicly open and no authorization is needed. On the other hand, closed for the public data are available only to authorized consortium partners through dedicated mechanisms provided by the cloud storage service employed by the respective partners in order to deposit the data. As further elaborated in Section 6 of this DMP, technical access controls are built into the MainstreamBIO website and are built into its toolkit as well, in order to ascertain the identity and access rights of those who want to access the data.

The need for a data access committee to evaluate or approve access requests to personal data, is not foreseen because only authorized partners have access to the project's closed data, accessible only by using their credentials (username/password), and no third-party will re-use them for their benefit.

3.2.3 *Metadata*

Availability and licences

Metadata of deposited publications generated in the context of MainstreamBIO are **open under a Creative Common Public Domain Dedication (CC 0)** or equivalent, in line with the FAIR principles for data management adopted by the project (in particular machine-actionable). Such **metadata provide information, at least, about the following**:

- The publication at hand (author(s), title, date of publication, publication venue);
- Reference to the Horizon Europe funding;
- The name of the project, including its acronym and Grant Agreement number;
- Any particular licensing terms which may apply (depending on the chosen license);
- Persistent identifiers that have been attributed to the publication;
- Authors involved in the action, their organisations and the project itself.

Where applicable, the metadata also include persistent identifiers for any research output, or any other tools and instruments needed to validate the conclusions of the publication. The metadata are available through Zenodo. It is quite unlikely that Zenodo will terminate its operation and stop providing its services, but in such a case all data, metadata, code and documentation uploaded will be transferred and hosted to other suitable repositories without undue delay. In this respect, it is important to note that, since all of MainstreamBIO's openly available data make use of PIDs (i.e., DOIs), which is further elaborated in subsection 3.1.1, the links to the data will not be affected. In parallel, the project's data that are not openly available for sharing are deposited, together with their accompanying metadata, code and documentation (if necessary), to the cloud web storage service employed by the project.

Methods, Software tools and documentation to access the data

MainstreamBIO emphasises the accessibility of the data collected / generated during the project. With that in mind, no specialised method, software tool and / or documentation is expected to be needed at the moment, in order to access the data. Stakeholders have the ability to access the data

by simply using their web browser (e.g., Mozilla, Google Chrome, Internet Explorer, Safari, etc.) through their computers (either desktop or laptop), smart phones and/or tablets.

More specifically, they first need to access Zenodo through its webpage (following the link https://zenodo.org/) and utilise the search engine of the repository to search for interesting data. By typing the name of the project (or any other relevant keyword connected to the MainstreamBIO data) the search engine will direct the user to the project's data, ready to be explored and re-used. Moreover, since the data are available in open formats, we are ensuring that they can appropriately be read by a range of different software that are widely and freely accessible to all potential users of the data.

Closed data is only accessed by authorised project partners through the usage of a cloud storage service. Again, no specialised method, software tool and / or documentation is needed to this end.

As it was further elaborated in subsection 3.2.1, if Zenodo terminates its operation and stops providing its services, in such a case all data, metadata, code and documentation uploaded will be transferred and hosted to other suitable repositories without undue delay.

Along these lines, this section has provided the methodology applied in the frame of MainstreamBIO to ensure that its data is as openly accessible as possible to any stakeholder that may find it interesting for re-use. In this context, MainstreamBIO also focuses on providing metadata standards and appropriate metadata vocabularies to increase data interoperability. The following section provides further details in this respect.

3.3 Making data interoperable

Data interoperability refers to the ability of systems and services that create, exchange and use data to have clear, shared expectations for the contents, context and meaning of that data[22]. With that in mind, MainstreamBIO has adopted in its data management methodology the use of metadata vocabularies, standards and methods that increase the interoperability of the data collected/generated through its activities.

More specifically, **the interoperability of the data that are not publicly shared is facilitated by the use of the Dublin Core Metadata standard.** This standard is a small "metadata element set" which accounts for issues that must be resolved in order to ensure that data meet traditional standards for quality and consistency, while still remaining broadly interoperable with other data sources in the linked data environment. The fifteen elements of the standard provide a vocabulary of concepts with natural-language definitions (e.g., title, creator, author, etc.) that are instantly converted into open machine-readable formats (such as XML, HTML, etc.), enabling machine-processability. Each element is optional and may be repeated, while the standard itself offers ways for refining them, encouraging the use of encoding and vocabulary schemes. The vocabulary of the Dublin Core Metadata standard is presented in the following table[23]:

[22] L. Steele & T. Orrell (2017). The frontiers of data interoperability for sustainable development. Publish What You Fund and Development Initiatives

[23] Sugimoto, S., Baker, T., & Weibel, S. L. (2002). Dublin Core: Process and Principles. Lecture Notes in Computer Science Digital Libraries: People, Knowledge, and Technology, 25-35.

Table 7: Dublin core Metadata standard vocabulary

No	Element	Element definition
1	Title	A name given to the resource.
2	Creator	An entity primarily responsible for making the content of the resource.
3	Subject	The topic of the content of the resource.
4	Description	An account of the content of the resource.
5	Publisher	An entity responsible for making the resource available.
6	Contributor	An entity responsible for making contributions to the content of the resource.
7	Date	A date associated with an event in the life cycle of the resource
8	Type	The nature or genre of the content of the resource.
9	Format	The physical or digital manifestation of the resource.
10	Identifier	An unambiguous reference to the resource within a given context.
11	Source	A reference to a resource from which the present resource is derived.
12	Language	A language of the intellectual content of the resource.
13	Relation	A reference to a related resource.
14	Coverage	The extent or scope of the content of the resource.
15	Rights	Information about rights held in and over the resource.

Along similar lines, **the interoperability of openly available data is facilitated through Zenodo**, which adopts community-endorsed practices, since its metadata is stored internally in JSON format according to a defined JSON schema. This encloses HTML microdata that allows machine-readable data to be embedded in HTML documents in the form of nested groups of name-value pairs. Moreover, the JSON schema provides a collection of shared vocabularies in microdata format that can be used to mark-up pages in ways that can be understood by major search engines.

MainstreamBIO's data offers qualified references to other data. A qualified reference is a cross-reference that explains its intent. For example, X is regulator of Y is a much more qualified reference than X is associated with Y, or X see also Y. Our goal is to create as many meaningful links as possible between (meta)data resources to enrich the contextual knowledge about the data, balanced against the time/energy involved in making a good data model. To be more concrete, our references specify if one dataset builds on another data set, if additional datasets are needed to complete the data, or if complementary information is stored in a different dataset. The links between the datasets are also described and, all datasets are properly cited, including their persistent identifiers.

3.4 Increase data re-use

3.4.1 *Documentation for validating data analysis and facilitating data re-use*

By utilising Zenodo for sharing the project's openly available data, MainstreamBIO ensures the facilitation of data access, validation and re-use, in compliance to the general policies of Zenodo regarding content, access and reuse. More specifically, the following principles are followed by Zenodo to make data re-useable according to the FAIR principles[24]:

- R1: (meta)data are richly described with a plurality of accurate and relevant attributes

Each record contains a minimum of DataCite's mandatory terms, with optionally additional DataCite recommended terms and Zenodo's enrichments.

- R1.1: (meta)data are released with a clear and accessible data usage license

License is one of the mandatory terms in Zenodo's metadata, and is referring to an Open Definition license. Data downloaded by the users is subject to the license specified in the metadata by the uploader.

- R1.2: (meta)data are associated with detailed provenance

All data and metadata uploaded is traceable to a registered Zenodo user. Metadata can optionally describe the original authors of the published work.

- R1.3: (meta)data meet domain-relevant community standards

Zenodo is not a domain-specific repository, yet through compliance with DataCite's Metadata Schema, metadata meets one of the broadest cross-domain standards available.

3.4.2 *License schemes to permit the widest use possible*

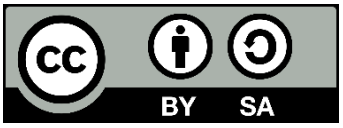
Data are made freely available in the public domain to permit the widest re-use possible. Moreover, the application of a licence to MainstreamBIO's open data is a simple way to ensure that any interested third-party can re-use it. In this context, licences are the instrument which permit a third-party to copy, distribute, display and/or modify the project's data only for the purposes that are set by the licence. Licences typically grant permissions on condition that certain terms are met. While the precise details vary, three conditions are commonly found in licences which are the attribution, non-derivative, and non-commerciality.

Along these lines, MainstreamBIO publishes openly available data under the **Creative Commons licencing scheme** to foster their re-use and build an equitable and accessible environment for them. Zenodo provides MainstreamBIO the **opportunity to publish its open data under five Creative Common licences** as follows:

[24] Retrieved from: https://about.zenodo.org/principles/

- **Creative Commons Attribution-Share Alike 4.0** (CC BY-SA 4.0) according to which any third party can freely copy, distribute, display and modify the datasets for any purpose. Remix, transform, or built upon data, must be distributed under the same license as the original. Third parties must give appropriate credit, provide a link to the license, and indicate if changes were made.

Figure 2: CC BY-SA 4.0

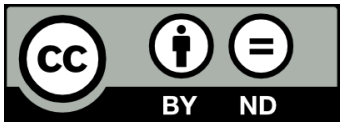


- **Creative Commons Attribution 4.0 International** (CC BY 4.0) according to which any third party can freely copy, distribute, display and modify the datasets for any purpose. Third parties must give appropriate credit, provide a link to the license, and indicate if changes were made.

Figure 3: CC BY 4.0

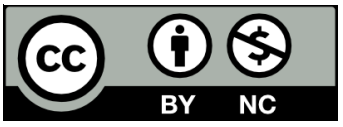
- **Creative Commons Attribution-No Derivatives 4.0 International** (CC BY-ND 4.0) during which any third party can freely copy, distribute, display and modify the datasets for any purpose. Remix, transform, or built upon data, however, must not be distributed. Third parties must give appropriate credit, provide a link to the license, and indicate if changes were made.

Figure 4: CC BY-ND 4.0



- **Creative Commons Attribution-NonCommercial 4.0 International** (CC BY-NC 4.0) based on which third parties can copy, distribute, display and modify the datasets for any purpose other than commercial unless they get a permission from project partners first. Third parties must give appropriate credit, provide a link to the license, and indicate if changes were made.

Figure 5: CC BY-NC 4.0



- **Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International** (CC BY-NC-ND 4.0) according to which third parties can copy, distribute, display and modify the datasets for any purpose other than commercial unless they get a permission from project partners first. Remix, transform, or built upon data, however, must not be distributed. Third parties must give appropriate credit, provide a link to the license, and indicate if changes were made.

Figure 6: CC BY-NC-ND 4.0

Different licensing schemes may be selected to better fit the need of MainstreamBIO's open data ensuring not only their long-term preservation and re-use but also the interests of the consortium along with the rights of individuals for whom the data is about. In such a case, this subsection of the DMP will be updated accordingly.

3.4.3 *Availability for re-use*

The re-use of data is a key component of MainstreamBIO's methodology for making data FAIR. In fact, making data available for re-use ensures interested stakeholders, other than project partners, can benefit from this data, contributing towards maximising the impact of the project. **Rich metadata** created based on metadata standards that enable proper discovery as well as **appropriate licensing schemes facilitate the re-use of MainstreamBIO's open data**, allowing them to find valuable utility even after the end of MainstreamBIO project.

In principle, it is expected that data will become available for re-use no later than 120 days after the end of its processing in the framework of the project (i.e., collection, anonymisation, aggregation,

etc.) to ensure that any additional data management activities required to this end do not compete with the timely delivery of the project's planned outputs.

With that in mind, the time that MainstreamBIO's data were made openly accessible and uploaded to Zenodo is provided in the following table:

Table 8: Time when data have been made open through Zenodo[25]

No	Data	Time for making data open	Notes
1	Status of relevant stakeholders	N/A	Data not to be published (personal data)
2	Farmers', rural communities' and consumers' needs, socio-economic context and framework conditions	27/07/2023	10.5281/zenodo.8188986 10.5281/zenodo.8188996
3	Status of value chains in Project focal regions	11/09/2023	10.5281/zenodo.8333643
4	Catalogue on small-scale biobased technologies	28/02/2023	10.5281/zenodo.11482370
5	Catalogue on business models	28/02/2023	10.5281/zenodo.11482370
6	Catalogue on social innovations	28/02/2023	10.5281/zenodo.11482370
7	Efficient and cost-effective nutrient recycling practices	01/06/2023	10.5281/zenodo.7969930
8	Co-creation workshop material	31/07/2023	10.5281/zenodo.11482470
9	Co-creation Workshop Personal data	N/A	Data not to be published (personal data)
10	Feedback for the development of decision-making model	21/05/2025	10.5281/zenodo.15479472
11	Material from relevant Projects' toolkits	21/05/2025	10.5281/zenodo.15479321
12	Automatically collected data and platform usage analytics	31/10/2025	Data will be collected from users throughout MainstreamBIO
13	Data collected from registered users interacting with Toolkit features	31/10/2025	Data will be collected from users throughout MainstreamBIO

[25] This timetable is based on expectations and may be modified during the course of the project taking into account any unforeseen risk that may occur.

No	Data	Time for making data open	Notes
14	Promising cases and needs	21/05/2025	10.5281/zenodo.15480387
15	Capacity building workshop material	29/02/2024	10.5281/zenodo.13819524
16	Capacity building workshop personal data	N/A	Data not to be published (personal data)
17	Partners' Portfolio of Technical and Business services	06/06/2025	10.5281/zenodo.15606158
18	Generated tailored innovation roadmaps	N/A	Data not to be published (personal data)
19	Networking events and demo days material	31/10/2025	Data will be made publicly available upon approval of Deliverable D3.3.
20	Networking events and demo days personal data	N/A	Data not to be published (personal data)
21	Campaigns webinar material	31/10/2025	Data will be made publicly available upon approval of Deliverable D3.4.
22	Campaigns in-person event materials	31/10/2025	Data will be made publicly available upon approval of Deliverable D3.4.
23	Performance and impact	31/10/2025	After approval of the respective deliverable.
24	Regional scale up workshop material	21/05/2025	10.5281/zenodo.15480472
25	Regional scale up workshop personal data	N/A	Data not to be published (personal data)
26	Learning workshops material	31/10/2025	Data will be made publicly available upon approval of Deliverable 4.2.
27	Learning workshops personal data	N/A	Data not to be published (personal data)
28	Policy Insights set	21/05/2025	10.5281/zenodo.15480176
29	MainstreamBIO Replication Guide and Toolkit data	31/10/2025	After approval of the respective deliverable.
30	Joint policy recommendations and briefs from the EU policy roundtable	31/10/2025	After approval of the respective deliverable.

No	Data	Time for making data open	Notes
31	Data collected for practice abstracts using EIP-AGRI format	21/05/2025	10.5281/zenodo.15480705
32	Website analytics	31/10/2025	After approval of the respective deliverable.
33	Social media statistics	31/10/2025	After approval of the respective deliverable.
34	Project events data	31/10/2025	After approval of the respective deliverable.
35	Newsletter subscriptions	N/A	This data will contain sensitive private and business information and cannot be made public. Available only within the consortium.
36	Data from dissemination and communication activities	31/10/2025	After approval of the respective deliverable.
37	Business models Analytics	06/06/2025	10.5281/zenodo.15606186
38	AB feedback and member list	31/10/2025	10.5281/zenodo.11474120
39	Material collected from Project management and coordination	N/A	Data not to be published

3.4.4 *Data provenance*

Data provenance is the documentation of where a piece of data comes from and the processes and methodology by which it was produced. Put simply, provenance answers the questions of why and how the data was produced, as well as where, when and by whom[26]. Accurately recording data provenance is a cornerstone of good data management. MainstreamBIO uses specific elements of the **Dublin Core Metadata Standards**[27] and the **W3C Provenance Data Model**[28], to generate specific text files (e.g., README) that accurately capture the history of each data entity throughout its versions (e.g., based on the DOI versioning Zenodo provides)[29].

[26] https://ardc.edu.au/resource/data-provenance/

[27] https://www.dublincore.org/resources/userguide/creating_metadata/#Provenance

[28] https://www.w3.org/TR/prov-dm/

[29] https://help.zenodo.org/

3.4.5 *Data quality assurance processes*

Quality Assurance (QA) and **Quality Control** (QC) activities are an integral part of MainstreamBIO's data management methodology and are implemented prior to the publication of any data to Zenodo, safeguarding the transparency, consistency, comparability, completeness and accuracy of the data.

QA is a planned system of review procedures conducted outside the framework of developing a dataset, by personnel not directly involved in the dataset development process[30]. In the context of MainstreamBIO, it takes the form of **peer-reviews of methods and/or data summaries** to assess the quality of the dataset and identify any need for improvement, ensuring that the dataset correctly incorporates the scientific knowledge and data generated.

QC is defined as a system of checks to assess and maintain the quality of the dataset being compiled[31]. The relevant procedures of MainstreamBIO are designed to provide routine technical checks as they measure and control data consistency, integrity, correctness and completeness as well as identify and address errors and omissions. In this context, QC checks cover everything from data acquisition and handling, application of approved procedures and methods, and documentation. Some of the general quality checks undertaken in the framework of the project include checking (i) for transcription errors in data input; (ii) that scale measures are within the range of acceptable values; and (iii) whether proper naming conventions are used.

[30] 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Vol. 1 General Guidance and Reporting, CHAPTER 6 Quality Assurance / Quality Control and Verification.

[31] 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Vol. 1 General Guidance and Reporting, CHAPTER 6 Quality Assurance / Quality Control and Verification.

4. Other research outputs

The implementation of MainstreamBIO entails activities that will generate or re-use other research outputs. This includes digital (e.g., software, workflows, protocols, models, etc.) research outputs, besides the data described in the second chapter of this DMP. The management of these other research outputs in the context of MainstreamBIO will be in line with FAIR data principles, as concisely outlined in the table that follows.

Work Package	Research output	Brief Description	Type	Expected size	Interested stakeholders and benefits	Availability	Accessibility (repository)	Expected time for making open
WP2	MainstreamBIO Digital Toolkit	Digital tool comprised of: • DSS. • Catalogue of small-scale bio-based technologies, business models and social innovations. • Collection of best practices for improved nutrient recycling. • BioForum. • Bioeconomy Repository. • Tool Library.	.csv	300 kb	Quadruple Helix (See section 2.5)	Open	MainstreamBIO website https://mainstreambio-project.eu/mainstreambio-toolkit/	01/03/2024
WP4	MainstreamBIO Audio-visual material	Material was collected from MIPs activities, regarding the adoption of small-scale bio-based solutions on the supported cases and enriched with testimonials	.mp4	2,897,122 kb	Quadruple Helix (See section 2.5)	Open	MainstreamBIO website https://mainstreambio-	06/06/2025

Work Package	Research output	Brief Description	Type	Expected size	Interested stakeholders and benefits	Availability	Accessibility (repository)	Expected time for making open
		from stakeholders for the preparation of an audio-visual material which will be contributed to the Knowledge Centre for Bioeconomy. This material is able to serve the practitioners with information, recommendations and practices based on the supported cases' outcomes.					project.eu/success-stories/	

5. Allocation of resources

5.1 Estimated costs for making data FAIR

The costs required for making the data collected/generated or re-used during MainstreamBIO's activities FAIR are integrated into the budget of the project. With that in mind, the table which follows provides an overview of the estimated costs of making data FAIR as well as their budget source within the framework of MainstreamBIO.

Table 9: Estimated costs for making data FAIR

No	Data Processing / Management activity	Budget source	Total estimated effort in Person Months[32]	Total estimated cost in Euro[33]
1	Collection	Budget allocated to the WP under which the respective data are processed	30,11	161.969,64 €
2	Documentation	Budget allocated to the WP under which the respective data are processed	7,53	40.492,41 €
3	Storage	Budget allocated to the WP under which the respective data are processed	3,76	20.246,20 €
4	Access and security	Budget allocated to the WP under which the respective data are processed	3,76	20.246,20 €
5	Preservation	Budget allocated to the WP under which the respective data are processed	1,88	10.123,10 €
6	Availability and re-use	Budget allocated to the WP under which the respective data are processed	11,29	60.738,61 €
7	Overall data management	WP6	3,95	21.249,50 €
			Total	335.065,68 €

[32] The total estimated effort for each data processing / management activity reflects the cumulative effort for the implementation of the respective activity for all data collected / generated across the different WPs of MainstreamBIO.

[33] The total cost of each data processing / management activity is calculated by multiplying the effort estimated for the respective activity with the weighted average cost of a person month in the framework of MainstreamBIO.

In order to produce the estimations of the costs for making data FAIR in the context of MainstreamBIO, a series of **assumptions** were made, taking into account the respective **guidelines** provided by the Research Data Management Support, a multidisciplinary network of data experts within Utrecht University[34], as well as of the UK Data Service and its data management costing tool[35]. With that in mind, the estimated costs for making MainstreamBIO's data FAIR cover **data-related activities and resources across the data lifecycle**, spanning from collection and documentation through storage and preservation over to sharing and re-use.

In particular, costs for **data collection** cover activities necessary for acquiring external datasets (if required), gathering/generating new data, transcribing (if applicable), formatting and organising this data as well as acquiring informed consent from data subjects. This data processing activity reflects the majority of the costs required for making data FAIR as the majority of MainstreamBIO's data constitutes new data collected/generated over the course of the project. At the same time, **data documentation** costs address the effort required for describing data (e.g., marking data with variable and value labels, code descriptions, etc.) as well as creating well-defined metadata along with a meaningful description of the context and methodology of how data was collected/generated and processed (where necessary).

Costs for **data storage** include the resources required for ensuring adequate storage space for the data as well as the effort necessary for conducting data back-ups, while **data access and security** costs encompass costs related to ensuring access to the data as well as for protecting it from unauthorised access or use or from disclosure. Given that the storage of MainstreamBIO's data does not require the procurement of additional space (other than what is already available to project partners) as well as that no special measures or software are required to access and secure the data (other than what is inherently built in to the repositories of MainstreamBIO's data), such costs are kept to a minimum.

Data preservation costs, on the other hand, are estimated relatively higher than data storage, access and security costs, as additional effort is required in several cases in order to convert the collected/generated data from their original form (e.g., physical interview transcripts) to an open and/or machine-readable format suitable for long-term preservation (e.g., to an .xlsx format.). Adequate effort for **data availability and re-use** costs is also foreseen to safeguard the appropriate digitisation and anonymisation of the data as well as cover any resources required for data sharing and cleaning. Along the same lines, appropriate effort is foreseen for **overall data management** as well, in order to cover the effort related with the operationalisation of data management in the framework of MainstreamBIO.

Finally, costs for **long-term preservation** in the framework of MainstreamBIO are assumed to be negligible, since the open data of the project is hosted in the repository of Zenodo free of charge.

[34] Research Data Management Support. Guides: Costs of data management. Utrecht University. Retrieved from: https://www.uu.nl/en/research/research-data-management/guides/costs-of-data-management

[35] UK Data Service. Costing Data Management. Retrieved from: https://www.ukdataservice.ac.uk/manage-data/plan/costing

5.2 Data management responsibilities

For the effective, proper and secure handling of the data collected/generated or re-used in the frame of MainstreamBIO, specific data management roles have been established within the data management methodology and procedures of the project. These responsibilities are outlined in this section of the DMP and are as follows.

Project Coordinator (PC): The PC, Q-PLAN, is responsible for overall data management in the framework of MainstreamBIO, including the elaboration of the DMP and its updates (when necessary, along with support of all partners). At the same time, the PC is responsible for the elaboration of proper templates for the Informed Consent Form and the Data Subject Request Form to be appropriately adjusted and utilised by project partners during the relevant activities of the project as well as for drafting the project's Privacy Policy that has been uploaded on the project's website. The PC in collaboration with the relevant project partners (e.g., Task Leaders) examines if additional specific privacy policies are required for certain project tasks and coordinates the elaboration of such privacy policies. Finally, the PC coordinates with Work Package Leaders, Task Leaders and Responsible Partners to determine whether and how the data collected / generated or re-used by the project are shared and become available for re-use, contributes to its quality assurance and uploads the project's openly available data to Zenodo.

Work Package Leaders (WPL): The WPL is responsible for coordinating the implementation of the data processing activities performed under the WPs they are leading. Moreover, they align with the PC and the respective Work Task Leader on whether and how the data gathered/produced under the tasks that fall within the WP they are leading will be shared and/or re-used. This includes the definition of access procedures as well as potential embargo periods along with any necessary software and/or other tools which may be required for data sharing and re-use. Finally, the WPL are the main responsible for assuring the quality of the data stemming from the activities of the WP they are leading, including assessing their quality and indicating any need for improvement to the respective Work Task Leaders.

Work Task Leaders (WTL): WTLs are responsible for the data collected / generated or re-used in the frame of the tasks that fall under their leadership as well as for safeguarding their appropriate and timely processing. Moreover, they are responsible for properly adjusting the Informed Consent Form and Data Subject Request Form templates, to the needs and specificities of the activities carried out in the task they are leading. WTLs are responsible for identifying the need for a specific privacy policy regarding the task they are leading and collaborate with the PC for drafting and releasing it to the public. Finally, they undertake any necessary actions to prepare the data collected / generated or re-used through the tasks they are leading for sharing either within the consortium or openly (including the use of proper naming conventions, application of suitable anonymisation techniques, creation of appropriate metadata and documentation, etc.).

Partners: All project partners are tasked to collect, digitise, anonymise, store, destroy and / or otherwise process data for the specific purpose of the activity in which it has been collected / generated or re-used within the project. They are responsible for appropriately collecting the necessary consent for processing data as well as for ensuring that the Informed Consent Form and the Data Subject Request Form used to this end are properly adjusted to the needs of the activity they are participating (including references to the project's Privacy Policy and any other applicable specific privacy policies) and, in any particularities, applicable to their organisation while ensuring adherence to provisions of relevant national data protection legislation in their respective country. Moreover, they are responsible for managing the consents they have collected with a view to demonstrating their compliance with the relevant applicable EU and national regulation(s). Finally,

they perform quality checks to assess and maintain the quality of the dataset(s) held within their records.

Data repositories: Data repositories are tasked with the storage and long-term preservation of the project's data. In this respect, Zenodo maintains and preserves the openly available data of MainstreamBIO, enabling its sharing and re-use. To this end, Zenodo assigns metadata and DOIs to the data, while also taking all necessary measures to securely back-up the data and restore it, safeguarding its long-term preservation.

In this context, the following table illustrates the allocation of data management responsibilities amongst the members of the MainstreamBIO consortium per data collected/generated or re-used under each WP.

Table 10: Data management responsibilities of MainstreamBIO's partners per data collected/generated under each WP

WP	WPL	Data	Tasks	WTL	Responsible Partner
WP1	MTU	Status of relevant stakeholders	Task 1.1	Q-PLAN	MTU, WR, IUNG, PROC, AUP, FBCD, INNV
		Farmers', rural communities' and consumers' needs, socio-economic context and framework conditions	Task 1.2	WHITE	WHITE, MTU, WR, IUNG, PROC, AUP, FBCD, INNV
		Status of value chains in Project focal regions	Task 1.3	MTU	MTU, WR, IUNG, FBCD, PROC, AUP, INNV
WP2	WR	Catalogue on small-scale biobased technologies	Task 2.1	WR	WR
		Catalogue on business models	Task 2.1	WR	INNV
		Catalogue on social innovations	Task 2.1	WR	WHITE
		Efficient and cost-effective nutrient recycling practices	Task 2.2	IUNG	IUNG
		Co-creation workshop material	Task 2.3	WHITE	WHITE
		Co-creation Workshop Personal data	Task 2.3	INNV	All partners involved in the WP
		Feedback for the development of decision-making model	Task 2.4	WR	WR
		Material from relevant Projects'	Task 2.5	DRAXIS	Q-PLAN
		Automatically collected data and platform usage analytics	Task 2.5	DRAXIS	DRAXIS
		Data collected from registered users interacting with Toolkit features	Task 2.5	DRAXIS	DRAXIS

WP	WPL	Data	Tasks	WTL	Responsible Partner
WP3	INNV	Promising cases and needs	Task 3.1	PROC	MTU, WR, IUNG, PROC, AUP, FBCD, INNV
		Capacity building workshop material	Task 3.2	DRAXIS	DRAXIS, MTU, WR, IUNG, PROC, AUP, FBCD, INNV
		Capacity building workshop personal data	Task 3.2	DRAXIS	DRAXIS, MTU, WR, IUNG, PROC, AUP, FBCD, INNV
		Partners' Portfolio of Technical and Business services	Task 3.3	INNV	All Partners
		Generated tailored innovation roadmaps	Task 3.3	INNV	Q-PLAN, MTU, WR, IUNG, PROC, AUP, FBCD, INNV
		Networking events and demo days material	Task 3.4	FBCD	MTU, WR, IUNG, PROC, AUP, FBCD, INNV
		Networking events and demo days personal data	Task 3.4	FBCD	MTU, WR, IUNG, PROC, AUP, FBCD, INNV
		Campaigns webinar material	Task 3.5	MTU	MTU, WR, IUNG, PROC, AUP, FBCD, INNV
		Campaigns in-person event materials	Task 3.5	MTU	MTU, WR, IUNG, PROC, AUP, FBCD, INNV
WP4	FBCD	Performance and impact	Task 4.1	Q-PLAN	Q-PLAN, MTU, WR, IUNG, PROC, AUP, FBCD, INNV
		Regional scale up workshop material	Task 4.2	WHITE	WHITE, MTU, WR, IUNG, PROC, AUP, FBCD, INNV
		Regional scale up workshop personal data	Task 4.2	WHITE	WHITE, MTU, WR, IUNG, PROC, AUP, FBCD, INNV
		Learning workshops material	Task 4.3	FBCD	MTU, WR, IUNG, PROC, AUP, FBCD, INNV
		Learning workshops personal data	Task 4.3	FBCD	MTU, WR, IUNG, PROC, AUP, FBCD, INNV
		Policy Insights set	Task 4.4	IUNG	IUNG, Q-PLAN, MTU, WR, AUP, FBCD, INNV, DRAXIS, WHITE

WP	WPL	Data	Tasks	WTL	Responsible Partner
		MainstreamBIO Replication Guide and Toolkit data	Task 4.4	IUNG	IUNG, Q-PLAN, MTU, WR, AUP, FBCD, INNV, DRAXIS, WHITE
		Joint policy recommendations and briefs from the EU policy roundtable	Task 4.4	IUNG	IUNG, Q-PLAN, MTU, WR, AUP, FBCD, INNV, DRAXIS, WHITE
		Data collected for practice abstracts using EIP-AGRI format	Task 4.5	AUP	MTU, WR, IUNG, PROC, AUP, FBCD, INNV
WP5	WHITE	Website analytics	Task 5.1	WHITE	WHITE
		Social media statistics	Task 5.1	WHITE	WHITE
		Project events data	Task 5.1	WHITE	WHITE
		Newsletter subscriptions	Task 5.1	WHITE	WHITE
		Data from dissemination and communication activities	Task 5.1	WHITE	All Partners
		Business models Analytics	Task 5.4	INNV	Q-PLAN, MTU, WR, IUNG, PROC, AUP, FBCD, INNV
WP6	Q-PLAN	AB feedback and Member list	Task 6.2	Q-PLAN	Q-PLAN
		Material collected from Project management and coordination	All WP6 Tasks	Q-PLAN	Q-PLAN

6. Data security

MainstreamBIO securely handles any collected / generated or re-used data throughout its entire lifecycle as it is essential to safeguard this data against accidental loss and / or unauthorised access. To achieve this, the project applies appropriate technical and organisational measures based on a risk assessment of the relevant data that takes into account the impact and the likelihood of a potential data breach. With that in mind, the project's data security strategy aims at minimizing the probability that a data breach will occur during the course and after the completion of MainstreamBIO, resulting either from human error or hardware failure, as well as inhibiting any unauthorised access. Particularly, in the case of personal data collection / generation it is crucial that this **data can only be accessible by those authorised to do so.**

All project partners are responsible for processing[36] data using appropriate means, such as private servers or cloud service providers that adhere to the relevant legal data protection requirements (e.g. GDPR) and ensure that this **data is protected,** and any **necessary data security controls have been implemented**, to minimize the risk of information leak and destruction. This case refers to the data that are closed and therefore are not shared and / or re-used within the framework of the project. In this case, to minimize the consequences of potential data losses, the data are **backed up at regular time intervals based on change frequency and criticality. The backed-up files are stored in appropriate storage media including external hard drives, flash drives, NAS devices and reputable cloud services**, so as to safeguard their preservation, while also enabling their recovery at any time. Moreover, **integrity checks**[37] are carried out regularly ensuring that the stored data has not been changed or corrupted.

Access to closed data is only permitted to authorised project partners. In case there is a personal data breach, the responsible project partner will notify, without undue delay and, where feasible, no later than 72 hours after having become aware of it, its competent national supervisory authority (e.g., data protection authority) as well as the data subject(s) that may be affected by the breach. Moreover, the responsible partner will document any personal data breaches, including information such as the facts relevant to the breach, its effects and the remedial action(s) taken.

Identification and authentication access controls play an important role in the context of the project, as they help partners to protect the data collected / generated or re-used during MainstreamBIO and especially personal data. To this end, each project partner is responsible for and committed to ensuring the application of appropriate access controls to the data they are processing. At the same time, **technical access controls are built into the MainstreamBIO website and into the MainstreamBIO toolkit as well**, setting out clear roles with access rights to the data stored there, so that only authorised personnel have access. Each project partner is

[36] Processing, according to Regulation (EU) 2016/679 of the European Parliament (General Data Protection Regulation), means any operation or set of operations which is performed on personal data or on sets of personal data, whether or not by automated means, such as collection, recording, organisation, structuring, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, restriction, erasure or destruction.

[37] An integrity check is the process of comparing the current state of stored data and/or programs to a previously recorded state in order to detect any changes.

provided with unique accounts containing one or more roles assigned to them and at the same time enforcing role-based security when its staff processes the project's data. These accounts are expected to be username / password protected, maximising access control. Finally, in order to safeguard the privacy of the users of the MainstreamBIO website and the MainstreamBIO toolkit, dedicated **privacy policies** define the way in which these online spaces collect, process and use personal data, the security procedures followed, the users' rights as well as the cookies policy employed.

On another note, openly available data are stored safely for long-term preservation on Zenodo, in the same cloud infrastructure as research data from CERN's Large Hadron Collider, using CERN's battle-tested repository software INVENIO, which is used by some of the world's largest repositories (such as INSPIRE HEP and the CERN Document Server). Along these lines, data is stored and backed-up in CERN's EOS service in an 18 petabytes disk cluster. Both data files and metadata are kept in multiple online replicas and independent replicas ensuring their long-term preservation as well as their recovery when necessary. Moreover, for each file, two independent MD5 checksums are stored. One checksum is stored by INVENIO, used to detect changes to files made from outside of it whereas the other checksum is stored by EOS, and used for automatic detection and recovery of file corruption on disks. In this context, access control is applied by the different level of openness that Zenodo allows (i.e., open, restricted and closed).

7. Ethics and other issues

This Chapter addresses the ethical aspects of the MainstreamBIO's Data Management Plan and the ethical compliance of the underlying data foreseen to be collected / generated or re-used under the project's activities. The project processes data that is not included in any special category of personal data (i.e., non-sensitive data) according to the relevant data protection legislation (e.g., GDPR). In accordance with **Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 (GDPR),** all personal data processed for project's activities shall be:

- processed lawfully, fairly and in a transparent manner in relation to the data subject;
- collected for specified, explicit and legitimate purposes relative to project's objectives and not further processed in a manner that is incompatible with those purposes;
- adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed;
- accurate and, where necessary, kept up to date;
- kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the personal data are processed;
- processed in a manner that ensures appropriate security of the personal data (see section 6).

For all personal data processing activities within the framework of the project, at least one lawful basis as of Art. 6 GDPR applies. Where informed consent is chosen as the lawful basis for processing, all relevant provisions of the data protection legislation (e.g., Art.7 GDPR) are observed. Under this light, further details about the **scope of the activities that entail data collection/generation or re-use** in the frame of MainstreamBIO along with the procedures for identifying/recruiting suitable stakeholders to take part in them as well as for obtaining their informed consent are defined by the respective WP Leaders (MTU for WP1, WR for WP2, INNV for WP3, FBCD for WP4). Moreover, **personal data processing carried out by partners is in line with relevant EU and national regulations**. The project's Privacy Policy and the templates of the Informed Consent Form and the Data Subject Request Form, used in the implementation of the project's activities, are compliant with the General Data Protection Regulation and annexed to this DMP (see Annex). Last but not least, **no transfer of personal data outside the EU is foreseen as part of the project's implementation.** In the case of data storage providers situated both inside and outside the EEA, partners are committed to ensure their compliance with the relevant GDPR requirements before start using their services.

It is important to highlight that each partner is responsible for ensuring that the templates for the Informed Consent Form and Subject Data Request Form (including references to the project's Privacy Policy and any other applicable specific privacy policies) are appropriately adjusted according to (i) the needs of the activity for which they are being used by them as well as to (ii) the relevant data protection laws and regulations applicable to their respective countries and / or organisation. All partners should keep records to demonstrate that data subjects have consented to the processing of their personal data and use consent management mechanisms that make it easy for individuals to withdraw their consent.

Finally, **no other national/funder/sectoral/departmental procedures for data management were used in the framework of MainstreamBIO.**

8. Conclusions and way forward

This final version of the MainstreamBIO DMP is built upon its interim version to further elaborate on the methodology employed in the frame of MainstreamBIO, aiming at safeguarding the sound management of the data collected, processed and/or generated during the project's activities across their entire lifecycle, while also making them FAIR. It describes all the underlying processes of the MainstreamBIO data management, collection, process and generation, in accordance with the GDPR guidelines, and sheds light on (i) the data being collected, processed, generated and/or re-used under the project activities, (ii) the specific objectives under which each dataset is collected, processed, generated and/or re-used, (iii) the management of the other research outputs of the project (iv) the allocation of resources and data management responsibilities and (v) the data security and ethical aspects of the data.

Specifically, the final version of the DMP elaborated further on the data collected, processed, and/or generated in the frame of the project (updated description and details of data) – based on the MainstreamBIO status and developments, while also providing the online paths for their future use.

9. Annexes

9.1 Annex I – Privacy Policy

PRIVACY POLICY

1. Who we are:

MainstreamBIO is a coordination project funded by the European Union's Framework Programme for Research and Innovation Horizon Europe. MainstreamBIO aims at contributing towards bringing small-scale bio-based solutions into the mainstream across rural Europe. To achieve this, the project is set to greatly enhance cooperation between key bioeconomy stakeholders, resulting in sustainable business models pathways for bio-based innovations in rural areas. Along these lines, the project follows an integrated methodology to establish regional multi-actor structures for demand-driven innovation, and deliver a combination of communication materials, training programmes, events, decision support system and other practical digital tools packed in the MainstreamBIO Toolkit.

The partners of the MainstreamBIO consortium, listed below, process certain types of personal data for the purposes of the project. Each partner is responsible for the personal data they collect and process during their activities under the framework of the project:

- Q-PLAN INTERNATIONAL ADVISORS PC, Greece (Coordinator), https://qplan-intl.gr/
- MUNSTER TECHNOLOGICAL UNIVERSITY, Ireland, https://www.mtu.ie/
- STICHTING WAGENINGEN RESEARCH, Netherlands, https://www.wur.nl/en.htm
- INSTYTUT UPRAWY NAWOZENIA I GLEBOZNAWSTWA, PANSTWOWY INSTYTUT BADAWCZY, Poland, https://www.iung.pl/
- RISE PROCESSUM AB, Sweden, https://www.ri.se/en/processum
- AGRAREN UNIVERSITET – PLOVDIV, Bulgaria, https://www.au-plovdiv.bg/en/
- FBCD AS, Denmark, www.foodbiocluster.dk
- EURIZON SL, Spain, https://innovarum.es/es/inicio/
- DRAXIS ENVIRONMENTAL SA, Greece, https://draxis.gr/
- WHITE RESEARCH SPRL, Belgium, https://white-research.eu/

For further information, we can be contacted at: www.mainstreambio-project.eu

2. How we collect your personal data

We collect personal data both directly and indirectly:

Directly. We obtain personal data directly from individuals in a variety of ways, including but not limited to the following cases:

- an individual subscribes to our newsletter/s;
- an individual registers to attend meetings and events we host and during attendance at such events;
- we establish cooperative relationships with an individual;
- we provide professional services pursuant to our contract with the European Commission;
- an individual participates in an interview or survey organized by us.

Indirectly. We obtain personal data indirectly about individuals from a variety of sources, including:

- our research partners;
- our networks and contacts;
- public and open data sources such as public registers, news articles and internet searches;
- social and professional networking sites (e.g., LinkedIn).

3. What types of data we collect?

We only collect the data that are necessary for the smooth implementation of our project. These data fall into the following categories:

- **contact details** (name/ surname, e-mail address, street address, mobile phone number, land line phone number);
- **professional information** (job title, organization, field of expertise);
- **demographics** (e.g., age, gender, nationality);
- **information about what a person knows or believes.**
- **videos and photos** (from people that attend our events).

4. Bases of lawful processing

We process personal data on the following legal bases:

Legal obligations - for processing activities required for compliance both with applicable national and European legislation as well as with the specific legal and regulatory framework of the Horizon Europe Framework Programme for Research and Innovation of the European Union.

Consent – for processing activities such as organization of surveys and interviews, completing of questionnaires and dissemination of project's results.

Contractual obligations - for processing activities such as reporting to the European Commission and complying with project's publicity obligations.

5. What we do with your personal data

We process your personal data with the purpose of:

- Conducting research (e.g., interviews, surveys);
- Dissemination our project's results to different types of stakeholder;
- Sending invitations and providing access to guests attending our events and webinars;
- Administering, maintaining, and ensuring the security of our information systems, applications, and websites;

- Processing online requests or queries, including responding to communications from individuals;
- Complying with contractual, legal, and regulatory obligations.

6. How we secure your personal data when we process it

We continuously apply a personal data risk assessment process to identify, analyse, and evaluate the security risks that may threat your personal data. Based on the results of this risk assessment, we define and apply a set of both technical and organizational measures to mitigate the above security risks, including but not limited to:

- Data Protection Policies to guide our personnel when processing your data;
- Written contracts with organizations that process personal data on our behalf;
- Non-Disclosure Agreements with our personnel;
- Back up process, antimalware protection, access control mechanisms, etc.
- Some of our partners have appointed a Data Protection Officer.

7. Do we share personal data with third parties?

We may occasionally share personal data with trusted third parties to help us deliver efficient and quality services. When we do so, we ensure that recipients are contractually bound to safeguard the data we entrust to them before we share the data. We may engage with several or all the following categories of recipients:

- Parties that support us as we provide our services (e.g., cloud-based software services such as Dropbox, Microsoft SharePoint, Google);
- Our professional advisers, including lawyers, auditors, and insurers;
- Dissemination services providers (e.g., MailChimp);
- Law enforcement or other government and regulatory agencies or other third parties as required by, and in accordance with applicable law or regulation;
- The European Commission according to our relevant contractual obligations.

8. Do we transfer your personal data outside the European Economic Area?

We do not own file servers located outside the European Economic Area (EEA). However, some partners may use cloud and / or marketing services from reputable providers such as SharePoint, DropBox, MailChimp, Google, etc., situated both inside and outside the EEA. We always check that such providers comply with the relevant GDPR requirements before start using their services.

9. Do we use cookies?

Our websites use cookies. Where cookies are used, a statement will be sent to your browser explaining the use of cookies. To learn more, please refer to our cookie policy.

Our websites use cookies. Where cookies are used, a statement will be sent to your browser explaining the use of cookies. Cookies are small text files which are saved on your computer, mobile phone or tablet. They allow the website to remember your actions and preferences (such as login, language, font size and other display preferences) so you don't have to keep re-entering them whenever you come back to the site. You can control and/ or delete cookies as you wish. If you do this, however, you may need to manually adjust your preferences every time you visit a site. For more information on how to manage cookies, please visit: http://www.aboutcookies.org/

We use tools like Google Analytics to better understand how visitors interact with our website. This provides us with important information to enable the site to work better. The information collected is not linked to your personal data. For more information on the cookies set by Google Analytics, please visit: http://code.google.com/apis/analytics/docs/concepts/gaConceptsCookies.html

The following cookies are used by Google Analytics:

Name	Typical content	Cookie expires after
_ga	Used to distinguish users	2 years
_gat	Used to throttle request rate	1 minute
_gid	Used to distinguish users	24 hours

10. Your rights

You have the following rights regarding our processing of your personal data:

- **Right to withdraw consent** – You can withdraw consent that you have previously given to one or more specified purposes to process your personal data. This will not affect the lawfulness of any processing carried out before you withdraw your consent.
- **Right of access** – You can ask us to verify whether we are processing personal data about you and, if so, to have access to a copy of such data.
- **Right to rectification and erasure** – You can ask us to correct our records if you believe they contain incorrect or incomplete information about you or ask us to erase your personal data after you withdraw your consent to processing or when we no longer need it for the purpose it was originally collected.
- **Right to restriction of processing** – You can ask us to temporarily restrict our processing of your personal data if you contest the accuracy of your personal data, prefer to restrict its use rather than having us erase it, or need us to preserve it for you to establish, exercise or defend a legal claim. A temporary restriction may apply while verifying whether we have overriding legitimate grounds to process it. You can ask us to inform you before we lift that temporary processing restriction.
- **Right to data portability** – In some circumstances, where you have provided personal data to us, you can ask us to transmit that personal data (in a structured, commonly used, and machine-readable format) directly to another entity.
- **Right to object –** You can object to our use of your personal data for direct marketing purposes, including profiling or where processing has taken the form of automated decision-making. However, we may need to keep some minimal information (e.g., e-mail address) to comply with your request to cease marketing to you.
- **Right to make a complaint to your local Data Protection Authority** (DPA) (see https://ec.europa.eu/justice/article-29/structure/data-protection-authorities/index_en.htm) regarding any concerns you may have about our data handling practices.

To ask us to do anything of the above, you can contact us by email: info@mainstreambio-project.eu. We will promptly examine your request against the relevant requirements of the laws and regulations governing privacy and personal data protection and we will answer the latest within 30 days after receiving your request. We will ask from you some kind of identification (e.g., photocopy of your identity card or passport) to avoid non-authorized reveal of your personal data. If, for reasons of complexity of the request or a multitude of requests, we are unable to respond promptly, we will

notify you within 30 days of any delay, which in no case may exceed two months from the expiration of the 30-day deadline.

11. How long do we retain personal data?

We retain personal data to provide our services, stay in contact with you and to comply with applicable laws, regulations, and contractual obligations to which we are subject. Please note that we have an obligation to retain data concerning projects funded by the Horizon Europe Framework Programme for Research and Innovation of the European Union for up to five years after the end of the project (unless further retention is requested by auditors). After the expiry of the retention period, and unless further legitimate grounds for retention arise, we will dispose of personal data in a secure manner.

12. Disclaimer of liability for third party websites

Although our site may contain links to third-party sites, including the sites of the consortium partners, we are not responsible for the privacy practices or content of these sites and we expressly disclaim any liability for any loss or damage that may be caused by the use of these links. We do not monitor the privacy practices or the content of these sites. If you have any questions about the privacy practices of another site, you should contact the site's responsible personnel. We suggest you read the privacy policy of each website you interact with, before allowing the collection and use of your personal data.

We may also provide social media features that allow you to share information on your social networks and interact with our project on various social media sites. The use of these social media features may result in the collection or sharing of information about you. We recommend that you check the privacy policies and regulations of the social networking sites you interact with, so that you can be sure that you understand what information may be collected, used and disclosed by these sites.

13. Children

We do not knowingly collect, use, or disclose information from children under the age of 16. If we learn that we have collected the personal information of a child under 16, we will take steps to delete the information as soon as possible. Please immediately contact us if you become aware that a child under 16 has provided us with personal information.

14. Revisions of this Privacy Policy

This Privacy Policy is valid from 30/11/2022 and replaces any other previous notifications that we had issued in the past regarding our personal data management practices. We reserve the right to revise this Policy at any time. The current version will be always uploaded to our website indicating the date of entry into force, so you know when the most recent revision took place. If there are critical changes in this policy or our personal data practices change significantly in the future, we will notify you by posting the changes on our website.

9.2 Annex II – Informed Consent Form

Text in red colour contains guidelines for adjusting this template and should be deleted.

Text in grey colour contains examples and should be adjusted to the context of each activity.

Text included in < > and/or highlighted with yellow should be replaced with content that is suitable to the context of each activity & project as well as to the organisation seeking to obtain the consent.

Before using this template take the time to carefully read and adjust it to the needs of the activity at hand as well as to any relevant regulations and particularities applicable to your country and organisation.

INFORMED CONSENT FORM

Who we are:

We are < Insert Partner Name > and we are contacting you in the framework of MainstreamBIO a project funded by the European Union under the Horizon Europe Framework Programme for Research and Innovation. A detailed description on how MainstreamBIO handles personal data is presented in the project's Privacy Policy available through the project's web page (www.mainstreambio-project.eu).

Project:

MainstreamBIO – MAINSTREAMing small-scale BIO-based solutions across rural Europe via regional Multi-actor Innovation Platforms and tailored innovation support (GA Number 101059420).

Partner:

Organisation name: < Insert Partner Name >

Address: < Insert Partner Address >.

Phone: < Insert Partner Phone >.

E-mail: <Insert Partner Generic E-mail Address >

Responsible persons:

You may delete the line referring to the Data Protection Officer if your organisation does not have one.

#	Role	Name	E-mail
1	MainstreamBIO Project Manager	<Insert name of project manager from your organisation>	<Insert e-mail of project manager from your organisation >
2	Interviewer	<Insert name of interviewer from your organisation >	<Insert e-mail of interviewer from your organisation >
3	Data Protection Officer	<Insert name of DPO from your organisation >	<Insert e-mail of DPO from your organisation >

What do we need from you?

Please explain in a brief paragraph (4-5 lines) the activity and its purpose under the frame of the project.

Example: We need you to participate in an interview that will be carried out by MainstreamBIO with a view to: identify and analyze farmers' and rural communities' needs, barriers and challenges to uptake and/or scale up small-scale bio-based solutions as well as to capture awareness levels and perceptions regarding the bioeconomy and bio-based solutions, products and nutrient circularity practices.

The interview is expected to last for no more than < Insert number of minutes > minutes. We will take written notes and we will be making a sound recording of the interview.

Please adapt the following text to accurately depict the type of personal data to be collected.

To effectively conduct this interview, we need to process some of your personal data:

- Your contact details (full name, email, phone number);
- Some basic demographics (age, gender);
- Your professional info (organization, job position, field of expertise);
- Your education info
- Your opinions on the subject matter.

Why do we need your data & what will we do with them?

We need your data to contact you in order to plan and carry out the aforementioned interview and to resolve any ambiguities, questions and other issues that may arise after and as a result of the interview. We also need to record your data to keep track of the interview process. The project's deliverables that will be derived by the interview will not include your personal data or any other information that could identify you. Your personal data will remain on our written notes (interview's transcript) and the sound recording we will make during the interview.

We will share your data with a few other MainstreamBIO project partners that are also involved in this task and will participate in the drafting of the relevant deliverables. We are also obliged to grant access to your data to:

- EU officials such as our Project Officer for purposes related to project's evaluation;
- EU agencies and other authorities for project's auditing purposes.

We would also be very happy if you gave us your consent to contact you in the future to ask you to participate in other project's activities (e.g., surveys, interviews, project events etc.) and also to inform you about the project's progress (e.g., by sending you a newsletter or similar messages).

How can you withdraw your consent?

You should know that you can withdraw your consent at any time by communicating either on the phone or by email with the responsible persons listed in the previous page. With regards to the informational messages and newsletters you can always opt out by simply clicking the link "Unsubscribe" or something similar included at the end of all the relevant messages.

I hereby give my consent to the processing of my personal data needed for:

*(Please, tick the boxes below to confirm that you give us your consent for the respective subject. Any boxes left unticked mean that **you do not consent to the relevant subject**.)*

#	Consent Subject	Tick box
1	My participation in an interview that will be carried out by MainstreamBIO to < insert key objective of the interview >	
2	My participation in future activities of MainstreamBIO	
3	Receiving newsletters and messages regarding MainstreamBIO activities	

Name of participant _____ Date _____ Signature _____

9.3 Annex III – Data Subject Request Form

Text in red colour contains guidelines for adjusting this template and should be deleted.

Text included in < > and/or highlighted with yellow should be replaced with content that is suitable to the context of each activity & project as well as to the organisation seeking to obtain the consent.

Data Subject Request form

You may delete the data referring to the Data Protection Officer if your organisation does not have one.

CONTACT

<Insert name of responsible Project Manager>	<Insert name of DPO > (Data Protection Officer)
<Insert email of responsible Project Manager>	<Insert e-mail of DPO >

DATA SUBJECT REQUEST FORM

This form should be used to submit a data subject request under the provisions of the European Union General Data Protection Regulation (GDPR).

Submitter Details

Title:	
Name:	
Address:	

TYPE OF REQUEST

Please select the type of request you are making:

- ☐ *Consent Withdrawal*
- ☐ *Access request*
- ☐ *Rectification of personal data*
- ☐ *Erasure of personal data*
- ☐ *Restriction of processing of personal data*
- ☐ *Personal data portability request*
- ☐ *Objection to processing of personal data*
- ☐ *Request regarding automated decision making and profiling*

PERSONAL DATA INVOLVED

REQUEST DETAILS

REQUEST REASON/JUSTIFICATION

Name: .....

Signature: .....

Date: .....

***

Once completed, this form should be submitted via e-mail to < Insert contact e-mail of Partner > or posted to:

< Insert Partner Name >

< Insert Partner Address >

9.4 Annex IV – Record of Processing Activities

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
Extensive mapping of relevant stakeholders and selection of the key ones	Stakeholder engagement	WP1	Task 1.1	Interested stakeholders	Data subject	Contact details Professional information Demographics	MTU			No	Art. 6(1)(a) - consent	No	No		
Extensive mapping of relevant stakeholders and selection of the key ones	Stakeholder engagement	WP1	Task 1.1	Interested stakeholders	Data subject	Contact details Professional information Demographics	WR			No	Art. 6(1)(a) - consent	No	No		
Extensive mapping of relevant stakeholders and selection of the key ones	Stakeholder engagement	WP1	Task 1.1	Interested stakeholders	Data subject	Contact details Professional information Demographics	IUNG			No	Art. 6(1)(a) - consent	No	No		
Extensive mapping of relevant stakeholders and	Stakeholder engagement	WP1	Task 1.1	Interested stakeholders	Data subject	Contact details Professional information Demographics	PROC			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
selection of the key ones															
Extensive mapping of relevant stakeholders and selection of the key ones	Stakeholder engagement	WP1	Task 1.1	Interested stakeholders	Data subject	Contact details Professional information Demographics	AUP			No	Art. 6(1)(a) - consent	No	No		
Extensive mapping of relevant stakeholders and selection of the key ones	Stakeholder engagement	WP1	Task 1.1	Interested stakeholders	Data subject	Contact details Professional information Demographics	FBCD			No	Art. 6(1)(a) - consent	No	No		
Extensive mapping of relevant stakeholders and selection of the key ones	Stakeholder engagement	WP1	Task 1.1	Interested stakeholders	Data subject	Contact details Professional information Demographics	INNV			No	Art. 6(1)(a) - consent	No	No		
Analysis of needs, barriers and challenges to uptake and/or	Interviews Online survey	WP1	Task 1.2	Interviewees Survey respondents	Data subject	Contact details Professional	MTU			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
scale up small-scale bio-based solutions						information Demographics									
Analysis of needs, barriers and challenges to uptake and/or scale up small-scale bio-based solutions	Interviews Online survey	WP1	Task 1.2	Interviewees Survey respondents	Data subject	Contact details Professional information Demographics	WR			No	Art. 6(1)(a) - consent	No	No		
Analysis of needs, barriers and challenges to uptake and/or scale up small-scale bio-based solutions	Interviews Online survey	WP1	Task 1.2	Interviewees Survey respondents	Data subject	Contact details Professional information Demographics	IUNG			No	Art. 6(1)(a) - consent	No	No		
Analysis of needs, barriers and challenges to uptake and/or scale up small-scale bio-based solutions	Interviews Online survey	WP1	Task 1.2	Interviewees Survey respondents	Data subject	Contact details Professional information Demographics	PROC			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
Analysis of needs, barriers and challenges to uptake and/or scale up small-scale bio-based solutions	Interviews Online survey	WP1	Task 1.2	Interviewees Survey respondents	Data subject	Contact details Professional information Demographics	AUP			No	Art. 6(1)(a) - consent	No	No		
Analysis of needs, barriers and challenges to uptake and/or scale up small-scale bio-based solutions	Interviews Online survey	WP1	Task 1.2	Interviewees Survey respondents	Data subject	Contact details Professional information Demographics	FBCD			No	Art. 6(1)(a) - consent	No	No		
Analysis of needs, barriers and challenges to uptake and/or scale up small-scale bio-based solutions	Interviews Online survey	WP1	Task 1.2	Interviewees Survey respondents	Data subject	Contact details Professional information Demographics	INNV			No	Art. 6(1)(a) - consent	No	No		
Analysis of attributes in the	Interviews	WP1	Task 1.3	Interviewees	Data subject	Contact details Professional	MTU			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
existing regional value chains						information Demographics									
Analysis of attributes in the existing regional value chains	Interviews	WP1	Task 1.3	Interviewees	Data subject	Contact details Professional information Demographics	WR			No	Art. 6(1)(a) - consent	No	No		
Analysis of attributes in the existing regional value chains	Interviews	WP1	Task 1.3	Interviewees	Data subject	Contact details Professional information Demographics	IUNG			No	Art. 6(1)(a) - consent	No	No		
Analysis of attributes in the existing regional value chains	Interviews	WP1	Task 1.3	Interviewees	Data subject	Contact details Professional information Demographics	PROC			No	Art. 6(1)(a) - consent	No	No		
Analysis of attributes in the existing regional value chains	Interviews	WP1	Task 1.3	Interviewees	Data subject	Contact details Professional information Demographics	AUP			No	Art. 6(1)(a) - consent	No	No		
Analysis of attributes in the existing regional value chains	Interviews	WP1	Task 1.3	Interviewees	Data subject	Contact details Professional information Demographics	FBCD			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
Analysis of attributes in the existing regional value chains	Interviews	WP1	Task 1.3	Interviewees	Data subject	Contact details Professional information Demographics	INNV			No	Art. 6(1)(a) - consent	No	No		
Collection of best practices related to nutrient recycling	Interviews	WP2	Task 2.2	Interviewees	Data subject	Contact details Professional information Demographics	MTU			No	Art. 6(1)(a) - consent	No	No		
Collection of best practices related to nutrient recycling	Interviews	WP2	Task 2.2	Interviewees	Data subject	Contact details Professional information Demographics	WR			No	Art. 6(1)(a) - consent	No	No		
Collection of best practices related to nutrient recycling	Interviews	WP2	Task 2.2	Interviewees	Data subject	Contact details Professional information Demographics	IUNG			No	Art. 6(1)(a) - consent	No	No		
Collection of best practices related to nutrient recycling	Interviews	WP2	Task 2.2	Interviewees	Data subject	Contact details Professional information Demographics	PROC			No	Art. 6(1)(a) - consent	No	No		
Collection of best practices related	Interviews	WP2	Task 2.2	Interviewees	Data subject	Contact details Professional	AUP			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
to nutrient recycling						information Demographics									
Collection of best practices related to nutrient recycling	Interviews	WP2	Task 2.2	Interviewees	Data subject	Contact details Professional information Demographics	FBCD			No	Art. 6(1)(a) - consent	No	No		
Collection of best practices related to nutrient recycling	Interviews	WP2	Task 2.2	Interviewees	Data subject	Contact details Professional information Demographics	INNV			No	Art. 6(1)(a) - consent	No	No		
Organization of a co-creation workshop per MIP	Workshop organization	WP2	Task 2.3	Workshop participants	Data subject	Contact details Professional information Videos and photos	UASZ			No	Art. 6(1)(a) - consent	No	No		
Organization of a co-creation workshop per MIP	Workshop organization	WP2	Task 2.3	Workshop participants	Data subject	Contact details Professional information Videos and photos	FBCD			No	Art. 6(1)(a) - consent	No	No		
Organization of a co-creation	Workshop organization	WP2	Task 2.3	Workshop participants	Data subject	Contact details Professional information	AFAAS			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
workshop per MIP						Videos and photos									
Organization of a co-creation workshop per MIP	Workshop organization	WP2	Task 2.3	Workshop participants	Data subject	Contact details Professional information Videos and photos	iHUB			No	Art. 6(1)(a) - consent	No	No		
Organization of a co-creation workshop per MIP	Workshop organization	WP2	Task 2.3	Workshop participants	Data subject	Contact details Professional information Videos and photos	UASZ			No	Art. 6(1)(a) - consent	No	No		
Organization of a co-creation workshop per MIP	Workshop organization	WP2	Task 2.3	Workshop participants	Data subject	Contact details Professional information Videos and photos	INP-HB			No	Art. 6(1)(a) - consent	No	No		
Organization of a co-creation workshop per MIP	Workshop organization	WP2	Task 2.3	Workshop participants	Data subject	Contact details Professional information Videos and photos	Q-PLAN			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
Development of methodology for matching	Focus groups	WP2	Task 2.4	Interviewees	Data subject	Contact details Professional information Demographics	MTU			No	Art. 6(1)(a) - consent	No	No		
Development of methodology for matching	Focus groups	WP2	Task 2.4	Interviewees	Data subject	Contact details Professional information Demographics	WR			No	Art. 6(1)(a) - consent	No	No		
Development of methodology for matching	Focus groups	WP2	Task 2.4	Interviewees	Data subject	Contact details Professional information Demographics	IUNG			No	Art. 6(1)(a) - consent	No	No		
Development of methodology for matching	Focus groups	WP2	Task 2.4	Interviewees	Data subject	Contact details Professional information Demographics	PROC			No	Art. 6(1)(a) - consent	No	No		
Development of methodology for matching	Focus groups	WP2	Task 2.4	Interviewees	Data subject	Contact details Professional information Demographics	AUP			No	Art. 6(1)(a) - consent	No	No		
Development of methodology for matching	Focus groups	WP2	Task 2.4	Interviewees	Data subject	Contact details Professional	FBCD			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
						information Demographics									
Development of methodology for matching	Focus groups	WP2	Task 2.4	Interviewees	Data subject	Contact details Professional information Demographics	INNV			No	Art. 6(1)(a) - consent	No	No		
Identification and selection of suitable cases of multi-actor partnerships per MIP	Interviews	WP3	Task 3.1	Interviewees	Data subject	Contact details Professional information Demographics	MTU			No	Art. 6(1)(a) - consent	No	No		
Identification and selection of suitable cases of multi-actor partnerships per MIP	Interviews	WP3	Task 3.1	Interviewees	Data subject	Contact details Professional information Demographics	WR			No	Art. 6(1)(a) - consent	No	No		
Identification and selection of suitable cases of multi-actor	Interviews	WP3	Task 3.1	Interviewees	Data subject	Contact details Professional information Demographics	IUNG			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
partnerships per MIP															
Identification and selection of suitable cases of multi-actor partnerships per MIP	Interviews	WP3	Task 3.1	Interviewees	Data subject	Contact details Professional information Demographics	PROC			No	Art. 6(1)(a) - consent	No	No		
Identification and selection of suitable cases of multi-actor partnerships per MIP	Interviews	WP3	Task 3.1	Interviewees	Data subject	Contact details Professional information Demographics	AUP			No	Art. 6(1)(a) - consent	No	No		
Identification and selection of suitable cases of multi-actor partnerships per MIP	Interviews	WP3	Task 3.1	Interviewees	Data subject	Contact details Professional information Demographics	FBCD			No	Art. 6(1)(a) - consent	No	No		
Identification and selection of suitable cases of multi-actor	Interviews	WP3	Task 3.1	Interviewees	Data subject	Contact details Professional	INNV			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
partnerships per MIP						information Demographics									
Organization of capacity building workshop	Workshop organization	WP3	Task 3.2	Workshop participants	Data subject	Contact details Professional information Videos and photos	MTU			No	Art. 6(1)(a) - consent	No	No		
Organization of capacity building workshop	Workshop organization	WP3	Task 3.2	Workshop participants	Data subject	Contact details Professional information Videos and photos	WR			No	Art. 6(1)(a) - consent	No	No		
Organization of capacity building workshop	Workshop organization	WP3	Task 3.2	Workshop participants	Data subject	Contact details Professional information Videos and photos	IUNG			No	Art. 6(1)(a) - consent	No	No		
Organization of capacity building workshop	Workshop organization	WP3	Task 3.2	Workshop participants	Data subject	Contact details Professional information Videos and photos	PROC			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
Organization of capacity building workshop	Workshop organization	WP3	Task 3.2	Workshop participants	Data subject	Contact details Professional information Videos and photos	AUP			No	Art. 6(1)(a) - consent	No	No		
Organization of capacity building workshop	Workshop organization	WP3	Task 3.2	Workshop participants	Data subject	Contact details Professional information Videos and photos	FBCD			No	Art. 6(1)(a) - consent	No	No		
Organization of capacity building workshop	Workshop organization	WP3	Task 3.2	Workshop participants	Data subject	Contact details Professional information Videos and photos	INNV			No	Art. 6(1)(a) - consent	No	No		
Generated tailored innovation roadmaps	Service provision	WP3	Task 3.3	Case	Data subject	Contact details Professional information	Q-PLAN			No	Art. 6(1)(a) - consent	No	No		
Generated tailored innovation roadmaps	Service provision	WP3	Task 3.3	Case	Data subject	Contact details Professional information	WR			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
Generated tailored innovation roadmaps	Service provision	WP3	Task 3.3	Case	Data subject	Contact details Professional information	MTU			No	Art. 6(1)(a) - consent	No	No		
Generated tailored innovation roadmaps	Service provision	WP3	Task 3.3	Case	Data subject	Contact details Professional information	IUNG			No	Art. 6(1)(a) - consent	No	No		
Generated tailored innovation roadmaps	Service provision	WP3	Task 3.3	Case	Data subject	Contact details Professional information	PROC			No	Art. 6(1)(a) - consent	No	No		
Generated tailored innovation roadmaps	Service provision	WP3	Task 3.3	Case	Data subject	Contact details Professional information	AUP			No	Art. 6(1)(a) - consent	No	No		
Generated tailored innovation roadmaps	Service provision	WP3	Task 3.3	Case	Data subject	Contact details Professional information	FBCD			No	Art. 6(1)(a) - consent	No	No		
Generated tailored	Service provision	WP3	Task 3.3	Case	Data subject	Contact details Professional information	INNV			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
innovation roadmaps															
Organization of networking events and demo days	Event organization	WP3	Task 3.4	Events participants	Data subject	Contact details Professional information Videos and photos	MTU			No	Art. 6(1)(a) - consent	No	No		
Organization of networking events and demo days	Event organization	WP3	Task 3.4	Events participants	Data subject	Contact details Professional information Videos and photos	WR			No	Art. 6(1)(a) - consent	No	No		
Organization of networking events and demo days	Event organization	WP3	Task 3.4	Events participants	Data subject	Contact details Professional information Videos and photos	IUNG			No	Art. 6(1)(a) - consent	No	No		
Organization of networking events and demo days	Event organization	WP3	Task 3.4	Events participants	Data subject	Contact details Professional information Videos and photos	PROC			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
Organization of networking events and demo days	Event organization	WP3	Task 3.4	Events participants	Data subject	Contact details Professional information Videos and photos	AUP			No	Art. 6(1)(a) - consent	No	No		
Organization of networking events and demo days	Event organization	WP3	Task 3.4	Events participants	Data subject	Contact details Professional information Videos and photos	FBCD			No	Art. 6(1)(a) - consent	No	No		
Organization of networking events and demo days	Event organization	WP3	Task 3.4	Events participants	Data subject	Contact details Professional information Videos and photos	INNV			No	Art. 6(1)(a) - consent	No	No		
Deployment of regional awareness raising and education campaigns per round	Event organization	WP3	Task 3.5	Events participants	Data subject	Contact details Professional information Videos and photos	MTU			No	Art. 6(1)(a) - consent	No	No		
Deployment of regional awareness raising	Event organization	WP3	Task 3.5	Events participants	Data subject	Contact details Professional information	WR			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
and education campaigns per round						Videos and photos									
Deployment of regional awareness raising and education campaigns per round	Event organization	WP3	Task 3.5	Events participants	Data subject	Contact details Professional information Videos and photos	IUNG			No	Art. 6(1)(a) - consent	No	No		
Deployment of regional awareness raising and education campaigns per round	Event organization	WP3	Task 3.5	Events participants	Data subject	Contact details Professional information Videos and photos	PROC			No	Art. 6(1)(a) - consent	No	No		
Deployment of regional awareness raising and education campaigns per round	Event organization	WP3	Task 3.5	Events participants	Data subject	Contact details Professional information Videos and photos	AUP			No	Art. 6(1)(a) - consent	No	No		
Deployment of regional awareness raising	Event organization	WP3	Task 3.5	Events participants	Data subject	Contact details Professional information	FBCD			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
and education campaigns per round						Videos and photos									
Deployment of regional awareness raising and education campaigns per round	Event organization	WP3	Task 3.5	Events participants	Data subject	Contact details Professional information Demographics	INNV			No	Art. 6(1)(a) - consent	No	No		
Monitoring and evaluation of regional MIP	Interviews	WP4	Task 4.1	MIP members	Data subject	Contact details Professional information Demographics	MTU			No	Art. 6(1)(a) - consent	No	No		
Monitoring and evaluation of regional MIP	Interviews	WP4	Task 4.1	MIP members	Data subject	Contact details Professional information Demographics	WR			No	Art. 6(1)(a) - consent	No	No		
Monitoring and evaluation of regional MIP	Interviews	WP4	Task 4.1	MIP members	Data subject	Contact details Professional information Demographics	IUNG			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
Monitoring and evaluation of regional MIP	Interviews	WP4	Task 4.1	MIP members	Data subject	Contact details Professional information Demographics	PROC			No	Art. 6(1)(a) - consent	No	No		
Monitoring and evaluation of regional MIP	Interviews	WP4	Task 4.1	MIP members	Data subject	Contact details Professional information Demographics	AUP			No	Art. 6(1)(a) - consent	No	No		
Monitoring and evaluation of regional MIP	Interviews	WP4	Task 4.1	MIP members	Data subject	Contact details Professional information Demographics	FBCD			No	Art. 6(1)(a) - consent	No	No		
Monitoring and evaluation of regional MIP	Interviews	WP4	Task 4.1	MIP members	Data subject	Contact details Professional information Demographics	INNV			No	Art. 6(1)(a) - consent	No	No		
Organization of regional scale up workshop per MIP	Workshop organization	WP4	Task 4.2	Workshop participants	Data subject	Contact details Professional information Demographics	MTU			No	Art. 6(1)(a) - consent	No	No		
Organization of regional scale up	Workshop organization	WP4	Task 4.2	Workshop participants	Data subject	Contact details Professional	WR			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
workshop per MIP						information Demographics									
Organization of regional scale up workshop per MIP	Workshop organization	WP4	Task 4.2	Workshop participants	Data subject	Contact details Professional information Demographics	IUNG			No	Art. 6(1)(a) - consent	No	No		
Organization of regional scale up workshop per MIP	Workshop organization	WP4	Task 4.2	Workshop participants	Data subject	Contact details Professional information Demographics	PROC			No	Art. 6(1)(a) - consent	No	No		
Organization of regional scale up workshop per MIP	Workshop organization	WP4	Task 4.2	Workshop participants	Data subject	Contact details Professional information Demographics	AUP			No	Art. 6(1)(a) - consent	No	No		
Organization of regional scale up workshop per MIP	Workshop organization	WP4	Task 4.2	Workshop participants	Data subject	Contact details Professional information Demographics	FBCD			No	Art. 6(1)(a) - consent	No	No		
Organization of regional scale up workshop per MIP	Workshop organization	WP4	Task 4.2	Workshop participants	Data subject	Contact details Professional information Demographics	INNV			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
Organization of cross-regional learning workshops	Workshop organization	WP4	Task 4.3	Workshop participants	Data subject	Contact details Professional information Demographics	MTU			No	Art. 6(1)(a) - consent	No	No		
Organization of cross-regional learning workshops	Workshop organization	WP4	Task 4.3	Workshop participants	Data subject	Contact details Professional information Demographics	WR			No	Art. 6(1)(a) - consent	No	No		
Organization of cross-regional learning workshops	Workshop organization	WP4	Task 4.3	Workshop participants	Data subject	Contact details Professional information Demographics	IUNG			No	Art. 6(1)(a) - consent	No	No		
Organization of cross-regional learning workshops	Workshop organization	WP4	Task 4.3	Workshop participants	Data subject	Contact details Professional information Demographics	PROC			No	Art. 6(1)(a) - consent	No	No		
Organization of cross-regional learning workshops	Workshop organization	WP4	Task 4.3	Workshop participants	Data subject	Contact details Professional information Demographics	AUP			No	Art. 6(1)(a) - consent	No	No		
Organization of cross-regional	Workshop organization	WP4	Task 4.3	Workshop participants	Data subject	Contact details Professional	FBCD			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
learning workshops						information Demographics									
Organization of cross-regional learning workshops	Workshop organization	WP4	Task 4.3	Workshop participants	Data subject	Contact details Professional information Demographics	INNV			No	Art. 6(1)(a) - consent	No	No		
Joint policy recommendations and briefs from EU Policy Round Table	EU Policy Round Table	WP4	Task 4.4	Round Table participants	Data subject	Contact details Demographics	IUNG			No	Art. 6(1)(a) - consent	No	No		
Monitoring and assessment of the dissemination, communication, stakeholder engagement and clustering activities	Subscription	WP5	Task 5.1	Newsletter subscribers (MIP members, public)	Data subject	Contact details	WHITE			No	Art. 6(1)(a) - consent	No	No		
Sketching alternative business models	Survey	WP5	Task 5.4	MIP members	Data subject	Contact details Professional information Demographics	MTU			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
for the operation of MIPs															
Sketching alternative business models for the operation of MIPs	Survey	WP5	Task 5.4	MIP members	Data subject	Contact details Professional information Demographics	WR			No	Art. 6(1)(a) - consent	No	No		
Sketching alternative business models for the operation of MIPs	Survey	WP5	Task 5.4	MIP members	Data subject	Contact details Professional information Demographics	IUNG			No	Art. 6(1)(a) - consent	No	No		
Sketching alternative business models for the operation of MIPs	Survey	WP5	Task 5.4	MIP members	Data subject	Contact details Professional information Demographics	PROC			No	Art. 6(1)(a) - consent	No	No		
Sketching alternative business models for the operation of MIPs	Survey	WP5	Task 5.4	MIP members	Data subject	Contact details Professional information Demographics	AUP			No	Art. 6(1)(a) - consent	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
Sketching alternative business models for the operation of MIPs	Survey	WP5	Task 5.4	MIP members	Data subject	Contact details Professional information Demographics	FBCD			No	Art. 6(1)(a) - consent	No	No		
Sketching alternative business models for the operation of MIPs	Survey	WP5	Task 5.4	MIP members	Data subject	Contact details Professional information Demographics	INNV			No	Art. 6(1)(a) - consent	No	No		
Setting up the Advisory Board Experts	Creation and operation of Advisory Board	WP6	Task 6.2	Advisory Board members	Data subject	Contact details Professional information Demographics, photos	Q-PLAN	All partners	Collection Access Use	No	Art. 6(1)(a) - consent	No	No		
Project management and coordination	Project management	WP6	Task 6.4	Project partners	Data subject	Contact details Professional information Videos and photos	Q-PLAN			No	Art. 6(1)(b) - contract	No	No		
Project management and coordination	Project management	WP6	Task 6.4	Project partners	Data subject	Contact details Professional information	MTU			No	Art. 6(1)(b) - contract	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
						Videos and photos									
Project management and coordination	Project management	WP6	Task 6.4	Project partners	Data subject	Contact details Professional information Videos and photos	WR			No	Art. 6(1)(b) - contract	No	No		
Project management and coordination	Project management	WP6	Task 6.4	Project partners	Data subject	Contact details Professional information Videos and photos	IUNG			No	Art. 6(1)(b) - contract	No	No		
Project management and coordination	Project management	WP6	Task 6.4	Project partners	Data subject	Contact details Professional information Videos and photos	PROC			No	Art. 6(1)(b) - contract	No	No		
Project management and coordination	Project management	WP6	Task 6.4	Project partners	Data subject	Contact details Professional information Videos and photos	AUP			No	Art. 6(1)(b) - contract	No	No		

Project Activity / purpose	Data processing activity	Linked WP(s)	Linked Tasks	Data subjects	Data source	Data category(-ies)	Responsible partner	Involved partner(s)	Type of involvement	Special category (Art. 9 GDPR)	Lawfulness of processing	Transfer to third countries (non EU-EEA)	Transfer to EU from third countries	Recipients	Comments
Project management and coordination	Project management	WP6	Task 6.4	Project partners	Data subject	Contact details Professional information Videos and photos	FBCD			No	Art. 6(1)(b) - contract	No	No		
Project management and coordination	Project management	WP6	Task 6.4	Project partners	Data subject	Contact details Professional information Videos and photos	INNV			No	Art. 6(1)(b) - contract	No	No		
Project management and coordination	Project management	WP6	Task 6.4	Project partners	Data subject	Contact details Professional information Videos and photos	DRAXIS			No	Art. 6(1)(b) - contract	No	No		
Project management and coordination	Project management	WP6	Task 6.4	Project partners	Data subject	Contact details Professional information Videos and photos	WHITE			No	Art. 6(1)(b) - contract	No	No		

9.5 Annex V – Main changes in the data collected / generated since M18

The following table summarizes the Main changes that have been made regarding the MainstreamBIO datasets. Beyond the following changes, several minor updates to better describe the datasets as well as reflect the type, format, size, availability and accessibility were made.

No.	Name of activity	Data	Status	Remarks
1	Extensive mapping of relevant stakeholders and selection of the key ones	Status of relevant stakeholders	Updated	The dataset was made closed since it contains several personal data and business information.
2	Delivery of innovation support services	Generated tailored innovation roadmaps	Updated	The dataset was made closed since it contains several personal data and business information.
3	Deployment of regional awareness raising and education campaigns per round	Generated action plan per MIP	Deleted	It was not collected/generated.
		Campaign In-Person events material	New	This dataset was collected during the project and will fuel D3.4.
4	Development and refinement of MainstreamBIO's Replication Guide and Toolkit and "Policy Insights" set	MainstreamBIO Replication Guide data	Combined	These datasets were combined into the "MainstreamBIO Replication Guide and Toolkit data dataset" and will be delivered as part of the D4.3.
		MainstreamBIO Replication Toolkit data	Combined	
5	Setting up the Advisory Board Experts	AB feedback	Combined	These datasets were combined.
		AB Member list	Combined	
6	Project management and coordination	Material collected from Project management and coordination	Updated	The dataset was made closed since it contains consortium's personal data.
7	Development, upgrade and fine-tuning of the MainstreamBIO digital toolkit	"Catalogue of small-scale bio-based technologies, business models and social innovations" user data	Deleted	The first 7 datasets were deleted and replaced with 2 new datasets, in order to better reflect the collected data from the use of Digital Toolkit. The new datasets will be available on Zenodo after the end of the project.
		"Collection of best practices for improved nutrient recycling" user data	Deleted	
		"BioForum" user data	Deleted	

No.	Name of activity	Data	Status	Remarks
		"Decision Support System" user data	Deleted	
		"MainstreamBIO Resources" user data	Deleted	
		"Bioeconomy Repository" user data	Deleted	
		"Tool Library" user data	Deleted	
		Automatically collected data and platform usage analytics	New	
		Data collected from registered users interacting with Toolkit features	New	
8	Production of EIP-AGRI abstracts and audio-visual material	Audio-visual material	Updated	Moved to Section 4. Other Research Outputs

MAINSTREAM BIO
MAINSTREAMING SMALL-SCALE BIO-BASED SOLUTIONS ACROSS RURAL EUROPE

The project

MainstreamBIO is an Horizon Europe EU funded project, which sets out to get small-scale bio-based solutions into mainstream practice across rural Europe, providing a broader range of rural actors with the opportunity to engage in and speed up the development of the bioeconomy. Recognizing the paramount importance of bioeconomy for addressing key global environmental and societal challenges, MainstreamBIO develops regional Multi-actor Innovation Platforms in 7 EU countries (PL, DK, SE, BG, ES, IE & NL). The project aims to enhance cooperation among key rural players towards co-creating sustainable business model pathways in line with regional potentials and policy initiatives. MainstreamBIO supports 35 multiactor partnerships to overcome barriers and get bio-based innovations to market with hands-on innovation support, accelerating the development of over 70 marketable bio-based products and services. Furthermore, the project develops and employs a digital toolkit to better match bio-based technologies, social innovations and good nutrient recycling practices with available biomass and market trends as well as to enhance understanding of the bioeconomy with a suite of educational resources building on existing research results and tools. To achieve these targets, MainstreamBIO involves 10 partners across Europe, coming from various fields. Thus, all partners combine their knowledge and experience to promote the growth of bioeconomy in a sustainable and inclusive manner.

Coordinator: Q-**PLAN INTERNATIONAL ADVISORS PC (Q-PLAN**)

Partner		Short Name
Q-PLAN INTERNATIONAL	Q-PLAN INTERNATIONAL ADVISORS PC	Q-PLAN
MTU Ollscoil Teicneolaíochta na Mumhan Munster Technological University	MUNSTER TECHNOLOGICAL UNIVERSITY	MTU
WAGENINGEN UNIVERSITY & RESEARCH	STICHTING WAGENINGEN RESEARCH	WR
IUNG Institute of Soil Science and Plant Cultivation State Research Institute	INSTYTUT UPRAWY NAWOZENIA I GLEBOZNAWSTWA, PANSTWOWY INSTYTUT BADAWCZY	IUNG
RI. SE	RISE PROCESSUM AB	PROC
AGRARIAN UNIVERSITY OF PLOVDIV	AGRAREN UNIVERSITET - PLOVDIV	AUP
Food & Bio Cluster Denmark	FBCD AS	FBCD
innovarum	EURIZON SL	INNV
DRAXIS ENVIRONMENTAL TECHNOLOGIES	DRAXIS ENVIRONMENTAL SA	DRAXIS
WHITE	WHITE RESEARCH SPRL	WHITE

CONTACT US info@mainstreambio-project.eu **VISIT** **www.mainstreambio-project.eu**

MainstreamBio @MainstreamBio MainstreamBio Project MainstreamBio Horizon Europe Project