MAINSTREAM BIO

MAINSTREAMING SMALL-SCALE BIO-BASED SOLUTIONS ACROSS RURAL EUROPE

D3.3

Report on engagement of multi-actor partnerships, capacity building, networking and innovation support - final version

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ABBREVIATIONS

AUP	AGRAREN UNIVERSITET - PLOVDIV
BG	Bulgaria
DK	Denmark
DRAXIS	DRAXIS ENVIRONMENTAL SA
DSS	Decision Support System
ES	Spain
EU	European Union
FBCD	Food & Bio Cluster Denmark
GA	Grant Agreement
IE	Ireland
INNV	EURIZON SL
IUNG	INSTYTUT UPRAWY NAWOZENIA I GLEBOZNAWSTWA, PANSTWOWY INSTYTUT BADAWCZY
KAM	Key Account Manager
MAP	Multi-Actor Partnership
MIP	Multi-actor Innovation Platform
MTU	MUNSTER TECHNOLOGICAL UNIVERSITY
NL	The Netherlands
PL	Poland
PROC	RISE PROCESSUM AB
Q-PLAN	Q-PLAN INTERNATIONAL ADVISORS PC
R&D	Research and Development
SE	Sweden
WHITE	WHITE RESEARCH SPRL
WP	Work Package
WR	STICHTING WAGENINGEN RESEARCH

Executive Summary

MainstreamBIO is a HORIZON EUROPE's Coordination and Support Actions project funded by the European Union under Grant Agreement (GA) 101059420. This project sets out to contribute towards supporting the deployment of small-scale bio-based solutions into the mainstream across seven focal rural regions of Europe: Friesland and Flevoland (The Netherlands), Lubelskie region (Poland), Middle Norland and Upper Norland (Sweden), Zealand, Mid Jutland and Northern Jutland (Denmark), South Central region of Bulgaria, Ebro Valley basin area (Spain) and the Southern Region of Ireland.

This document presents the final report on the "engagement of multi-actor partnerships, capacity building, networking and innovation support" formulated as this deliverable (D3.3), building on the previous D3.1 initial version, which was submitted in August 2024 (M24). This deliverable comprises the actions and work performed under 4 different tasks from the Working Package 3:

- **Task 3.1**: *Engagement of multi-actor partnerships and elaboration of tailored innovation support roadmaps*. The **first Open Call** was launched in June 2023 (M10) and was completed at the end of October 2023 (M14). 36 applications asking for a total of 102 services were received by the 7 regional Open Calls. The **second Open Call** kicked off in July 2024 (M23) and closed in September 2024 (M25). 18 new applications (plus 1 applicant repeating after the First Innovation Round) were received in the 7 MIPs during the second round, with a total of 59 services requested.
- **Task 3.2**: *Delivery of capacity building to regional actors to identify innovative bio-based business models*. **7 capacity-building workshops** (one for each MIP) to showcase and get feedback on the first version of the digital toolkit were all performed in the first half of 2024, with the participation of 160 attendants in total.
- **Task 3.3**: *Delivery of innovation support services to enhance the market uptake of small-scale bio-based solutions*. The service provision of the **First Innovation Round** started in November 2023 (M15) and finished mostly in June-July 2024 (M22-23), being the last reports delivered in August 2024 (M24). In summary, 27 cases were supported in the First Innovation Round, providing 35 services in total. Meanwhile, the service provision of the **Second Innovation Round** started in November 2024 (M27), and the last reports were received in June 2025 (M34). In this 2nd round, 17 cases were supported, providing 23 services.
- **Task 3.4**: *Organisation of networking and demo days to showcase the deployment of solutions*. The first round of networking events (one for each MIP) to showcase the deployment of solutions and to catalyse connections between the supported multi-actor partnerships and suitable partners is an ongoing task. The **first round of networking events** happened from May (M21) to November 2024 (M27), gathering an attendance of 177 people. The **second round of networking events** occurred from March 2025 (M31) to June 2025 (M34) with a total attendance of 189 persons.

Meanwhile, Task 3.5 is associated with D3.2 (initial) and D3.4 (final), which seeks to enhance bioeconomy education through an educational and practical campaign.

1. Introduction

The current report presents the results coming from the implementation of *Task 3.1: Engagement of multi-actor partnerships and elaboration of tailored innovation support roadmaps* (M8-M24), *Task 3.2 Delivery of capacity building to regional actors to identify innovative bio-based business models* (M8-M28), *Task 3.3 Delivery of innovation support services to enhance the market uptake of small-scale bio-based solutions* (M14-M36) and *Task 3.4 Organisation of networking and demo days to showcase the deployment of solutions* (M22-M36).

This deliverable provides details on the work performed by the partners from M24 (August 2024) to M36 (August 2025).

The previous work, summarised as D3.1, explains in detail the work performed from the start of the project to M24, and to include the same information again here would be repetitive.

Deliverable 3.3 report is structured into 7 distinct sections as follows:

- **Section 1** provides introductory information about the project and D3.3, outlining its objectives and context.
- **Section 2** presents the process for the launch of the Second Open Call, as well as the evaluation and distribution of applications, and the overall analysis of both Open Calls.
- **Section 3** describes the Second Innovation Round, with a summary of each service provided and the aftermath and lessons learnt, considering both innovation rounds.
- **Section 4** presents the organisation and performance of the Capacity-building workshops in each focus area, highlighting key findings and feedback from the in-person events.
- **Section 5** provides information about the organisation of the two rounds of Networking events.
- **Section 6** offers the main conclusions of the report.
- **Annexes** include the report annexes, such as Terms of References and Guidelines for the organisation of the Open Calls and the networking events.

1.1 Context

Despite the potential of small-scale bio-based solutions to advance the bioeconomy in rural areas, its uptake in the regions across Europe is far from straightforward. Considerable investments in research and innovation, business support networks, policy incentives and funding schemes that have been done mainly focus on industrial-scale projects and large-scale biorefineries. Thus, there is a great potential for further developing the bio-based economies in the targeted rural areas through small-scale solutions, in line with the resources and capacities of these regions.

However, there are still many barriers to overcome to facilitate the uptake of rural bioeconomy, such as the limited understanding of bioeconomy; insufficient awareness regarding relevant market opportunities; missing knowledge, lack of skills and/or financial resources to set up sustainable business models; as well as underdeveloped or missing value chains for bio-based products. Consequently, a great amount of the existing practical knowledge on these solutions remains underexploited, along with its potential to drive sustainable and circular transitions.

In this context, MainstreamBIO aims to support the development of small-scale solutions in European rural regions by **bringing together key regional players, supporting their collaboration, exploring opportunities and co-creating solutions to engage rural actors** in the deployment of the bioeconomy, with the final asset of **providing innovation support tailored** to the rural challenges and opportunities of each of the study regions to overcome the above-mentioned barriers. The main solutions developed under MainstreamBIO activities consist of a portfolio of innovation support services to be delivered to multi-actor partnerships and innovators with rural small-scale bioeconomy ideas or projects, as well as a **digital toolkit** to bring together scattered resources and tools that can facilitate the development of the bioeconomy regionally.

1.2 Objectives

The objective of this report is to describe the process towards **the launch and completion of the Second Innovation Round, including both the launch of the Second Open Call and the provision of the innovation support services**; and **the progress in the organisation of networking and demo day events** in each focus area. In this Report, we tackle the following MainstreamBIO objectives mentioned in the Grant Agreement:

- *Co-develop innovation support services and digital tools to build awareness, understanding and capacity to uptake small-scale bio-based solutions in line with market demand and regional specificities*.
    - Section 4 highlights the development and implementation of the MainstreamBIO digital toolkit, detailing its functionalities and how it consolidates resources to support the deployment of small-scale bio-based solutions in rural regions. After the organisation and performance of the 7 capacity-building workshops to showcase and co-create the MainstreamBIO digital toolkit (addressed in deliverables 2.3 and 3.1), this report follows the feedback mechanisms and continuous improvement strategies adopted to ensure the toolkit remains relevant and effective for regional stakeholders.

- *Deliver tailored innovation support services to accelerate the deployment of scientific and practical knowledge, introducing bio-based solutions to the market along with marketable products and services*.
    - In section 2, the process of launching the Second Open Call (including the update of different materials) is described in detail. Afterwards, the process of selection, allocation and granting of the services is showcased.
    - In section 3, the final provision of the tailored innovation support services for the Second Innovation Round is described. The cases selected had signed a Terms of Reference, allowing the inclusion of the results of the service reports in all information directed to the European Commission, such as this Deliverable. However, personal and confidential data is restricted due to the public nature of D3.3. Conclusions taking into account both Innovation Rounds and lessons learnt for future projects and initiatives are provided.
- *Raise awareness, cluster with relevant initiatives and communicate the project, disseminating its results, while also acting towards their widespread adoption and sustainable exploitation*.
    - Section 5 provides an overview of both the outcomes and lessons learned from the first round of networking events, as well as the planning and development of the

second round of seven regional networking events and demo days (one for each MIP). These events play a crucial role in advancing objective 5 by bringing together key innovation intermediaries and stakeholders in each focal region. Building on the experience of the first set of networking events, the second set was designed to deepen these connections and further stimulate the adoption of small-scale bioeconomy innovations through dynamic networking activities and interactive sessions.

2. Open Calls

Task 3.1 was conducted in two rounds, happening in M10-M14 (First Open Call) and M22-M26 (Second Open Call), with the main goal being to scout, engage and select the bioeconomy actors to be supported by each regional MIP during the corresponding innovation round.

Hence, the main objectives of Task 3.1 are to launch open calls (one call in each MIP region) in each innovation round (two rounds in total), evaluate the applications and distribute among service providers the innovation support services that would be conducted under Task 3.3.

The first call was completed at the end of October 2023 (M14) and is thoroughly described in D3.1 and summarised in this D3.3. The second call was completed in October (M26), after the close of the Open Call in September 2024 (M25), and it is thoroughly described in section 2.4.

Primary sector players, as well as already formed partnerships (small businesses, self-employed people, academia & research institutes, social initiatives), could apply to the open calls to benefit from the MainstreamBIO innovation support services provided by the project partners. A list of the services offered by each project partner is found in Table 1, services which are classified as business and technical. The definitions of the services and their methodology are included in the "Deliverable 2.6 MainstreamBIO innovation support services – final version".

Table 1. List of innovation services offered in the two innovation rounds and corresponding service providers.

	Service name	Service provider
TECHNICAL SERVICES	Project design and development advice	WR
	Scale-up advisory	PROC
	Nutrient management and fertilisation	IUNG, AUP
	Technology scouting	WR, Key account manager (KAM) of each MIP
	Techno-economic analysis	PROC
BUSINESS SERVICES	Business model design and optimisation	INNV, Q-PLAN
	Market analysis	INNV, Q-PLAN, PROC
	Business mentoring	INNV, Q-PLAN, PROC
	Guidance in accessing funding	INNV, Q-PLAN, PROC
	Matchmaking	KAM of each MIP, INNV, PROC

Accordingly, Task 3.1 is divided into the following subtasks, to be repeated in each Innovation Round:

- Development of materials to support the launch of the Open Calls.
- Creation of a long list of potential candidates to be supported.
- Launch of the Open Calls.
- Evaluation of applications.
- Allocation of cases among service providers.
- Notification to applicants and enrolment of participants.

Each of these subtasks is further described in the following sections.

2.1 Development and update of materials

PROC, with the support of INNV, prepared the necessary materials for the launch of the Open Calls in the two rounds. This subtask occurred in M8-M10 during the First Round and in M21-M22 during the Second Round.

The materials included the following documents, which are described below and are included as Annexes:

- Open call guidelines (.doc)
- Application template (further adapted to each local language by MIP leaders) (.xls)
- Evaluation criteria matrix (.xls)
- Terms of reference (.doc)
- Networking event and demo day guidelines (.doc)

2.1.1 *Open Call guidelines*

The *Open Call guidelines* (see Annex I) were updated in a .doc document that was shared with all the MIP leaders to support them in the preparation and launch of the Second Open Call in their respective regions. The guidelines included information on partners' responsibilities, timeline, evaluation and selection of applications, notification to the participants, and agreement with the participants on the details of the innovation support services. The document "Open call guidelines" was reviewed for the second round based on the lessons learned from the first round. So, e.g., the responsibilities of the partners were reinforced, as well as the procedure and criteria to select and allocate the innovation support services to ensure compliance with the project directives. In that sense, it was included:

- to support at least 5 MAPs per MIP (along the two innovation services),
- to maximise the number of applications that will receive at least one service,
- to receive all the needed information before the support, so the service provider could decide if they have the competence and resource possibilities,
- to prioritise the provision of the service with a partner of the same country, and if not, transferring the service between MIPs, because it was found that higher impacts and stronger connections can be delivered when the service provider and the applicant share the same region (and language).

2.1.2 *Application template*

The *application template* (see Annex II) consisted of a .xls file including the fields that each MIP would subsequently translate into their corresponding local language and transfer to a *Google form* to be used as the application form by the applicants in the respective regional Open Call. The fields included in the application template were: the title of the project, information about the participants, background and objective of the project, innovation support services requested and dissemination plan of the results. The *application template* was reviewed for the second round to reinforce the support of MAPs against individual applications, so, for example, in the case the main applicant applies alone, they could suggest potential partners to match during the service. A field regarding the maturity level of the idea proposed in the application form was also included to be answered by the applicants requesting scaling-up and techno-economic analysis services to assess if those services would be adequate.

During the First Round, it was found that some of the technical services could not be properly completed either due to the lack of data or the advance maturity level of the technology the applicants already have. To try to avoid this situation in the Second Call, the following requirements to apply have been included:

- *Scale-up advisory*: Flow diagram, operational conditions and material balance data on the process at least from small-scale experimentation are required. We can tailor the advice depending on the maturity of the process and product development.
- *Techno-economic analysis*: Flow diagram, operational conditions, material balances and energy balance data on the process, at least from small-scale experimentation. Energy balances could be calculated during the service if operational conditions and material balances are already well defined.

Additionally, the last field referring to dissemination of the results was removed since it was not found relevant in the context of the call.

2.1.3 *Evaluation criteria matrix*

The *evaluation criteria matrix* (see Annex III) was provided in .xls format and was divided into two main sections assessing:

- eligibility (i.e., small-scale bio-based solutions, potential for MAP creation, suitability of the innovation support services), and
- contribution to specific five criteria: development of sustainable bioeconomy, economic potential, technical potential, social potential, and communication and dissemination of results.

This evaluation criteria matrix was based on the evaluation methodology that PROC had previously developed to assess the applications they receive in the Processum R&D Council call they usually launch about three times per year to support regional SMEs.

Although major efforts were made to attract multi-actor partnerships (MAPs), individual applications with potential for partnerships would also be considered if they met the eligibility criteria, ensuring that services were provided to as many innovative actors as possible. Nonetheless, the creation of MAPs has not been possible in all the cases supported, and for that reason, the *Evaluation criteria matrix* has been also reviewed for the Second Round to prioritize the support of already created MAPs, or individual cases highly interesting for the stakeholders in the region, so the MAP is created along the service provision. The evaluation section regarding dissemination of results was also removed for the Second Round since it was not found relevant in the context of the call. On the other hand, new fields were included to assess how the application would contribute to the KPIs of the project. Hence, a new section on implementation potential was added to the *Evaluation criteria matrix* reviewed for the Second Round.

2.1.4 *Terms of Reference*

The document *Terms of Reference* (see Annex IV) was provided as a separate .doc document. It included information on the project and the corresponding open call, the innovation support services requested and offered, the contact information of the MIP leader, the service providers and the participants, the role of the participants and how their information and the outcomes of the service would be used in the project and future dissemination related tasks. The main purpose of this document is to officially enrol the selected candidates in the provision of MainstreamBIO's services

and agree on the details of the service. The document *Terms of Reference* was also reviewed for the Second Round but, this time, with no major changes.

The *Application template*, *Evaluation criteria matrix* and *Terms of reference* were all attached as annexes to the *Open call guidelines*, and in this document can be found as different annexes for more clarity.

2.2 Creation and update of the long list

A total of 84 potential cases were compiled with information about the background and kind of support that would be required by each potential case. 22 out of the 84 potential cases were finally supported in the First Innovation Round. The long list was updated ahead of the opening of the Second Open Call by each MIP, even when it was not used in the end for the Second Round.

2.3 First Open Call

2.3.1 *Launch of the First Open Call*

Once all the MIPs had received the guidelines to support their respective open call, they planned their own launches from M10 to M13. The launching dates and duration of the First Open Call in each of the MainstreamBIO regions were as indicated below:

- Netherlands (WR) Date: 1st of July – 30th of September 2023
- Spain (INNV) Date: 5th of July – 4th of October 2023
- Ireland (MTU) Date: 14th of July – 24th of August 2023
- Denmark (FBCD) Date: 15th of August – 25th of September 2023
- Sweden (PROC) Date: 1st of September – 30th of September 2023
- Bulgaria (AUP) Date: 1st of September – 30th of September 2023
- Poland (IUNG) Date: 1st of September – 30th of September 2023

WHITE, with inputs from INNV and PROC, created a page on the project's website dedicated to the Open Call (https://mainstreambio-project.eu/open-call/). Additionally, each MIP promoted the Open call in their respective social media channels and network to encourage potential participants.

2.3.2 *Evaluation and allocation of Cases*

After the closure of the corresponding Open call, each MIP conducted the evaluation of the applications they had received in their region using the *Evaluation Criteria Matrix*. For that purpose, MIP leaders invited MIP members to a hybrid meeting (physical attendance and online to promote participation) to assess each application case by case. First, applicants were checked for compliance with eligibility criteria. The eligible applications were then evaluated attending to the different categories stated, and a final score of 0-14 points was assigned to each application (each "YES" in the matrix gave 1 point to the application). As a result, each MIP generated a list of cases ordered from highest to lowest score. Afterwards, it was used as a base for discussion with all the MIPs and service providers to select and distribute cases among them according to their resources. Table 2 lists the applications received in each MIP, the services requested, and the score received. A total of 36 applications or cases (mostly individual, and only two applications with MAPs) were received in the 7 MIPs during the first round, with a total of 102 services requested.

The most requested business service was Market Analysis (29%), followed by Matchmaking (25%), Guidance in accessing funding (23%) and Business model design (18%) (Figure 1A). The most

requested technical service was Scale-up advisory (38%), followed by Technology scouting (19%) and Nutrient management and fertilisation (19%) (Figure 1B). There was one specific application that requested Policy Review as the sole service, which was not included in the service portfolio. Since MTU has the knowledge and expertise to provide this type of support, this application was also considered for the next stages in the selection of cases.

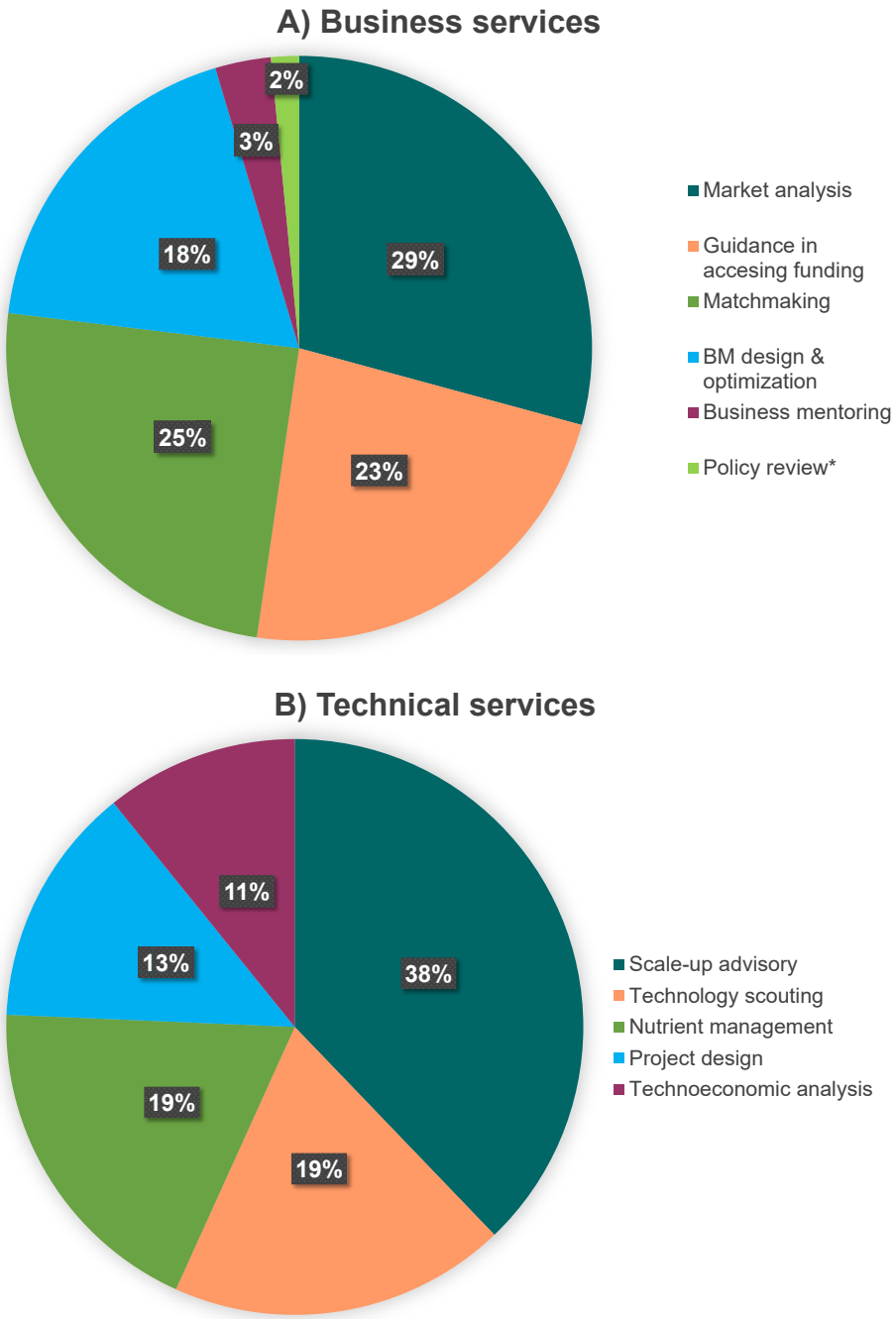


Figure 1. Demand for innovation support services in the first open call.

Table 2 collects all the applications received (36 cases), including the services they were aiming for and the final score given by the MIP based on the Evaluation criteria matrix. Four applicants out of

36 (cases 6, 10, 34 and 35) clarified that they would prefer to receive the service in 2025 (Table 2), so they did not continue in the process and would be considered as potential cases for the 2nd round. Therefore, only 32 applications passed to the following stage in the process, i.e., the distribution and allocation of services.

Table 2. List of applications received in each MIP, indicating the services requested and the final score received from the corresponding MIP.

Case nº	MIP / Country	Score (0 to 14)	Service requested 1	Service requested 2	Service requested 3	Service requested 4	Service requested 5
1	BG	11	Market research	Matchmaking			
2	BG	10	Techno-economic analysis	Opportunities for funding	Nutrient management and fertilisation	Technology scouting	
3	BG	14	Business model design	Market research	Mentoring	Opportunities for funding	Matchmaking
4	BG	14	Business model design	Scale-up advisory	Project design and development	Technology scouting	
5	BG	14	Matchmaking	Opportunities for funding	Nutrient management and fertilisation	Matchmaking	
6*	BG	11	Market research				
7	BG	13	Technology scouting	Nutrient management and fertilisation			
8	BG	14	Business model design	Opportunities for funding			
9	BG	14	Market research	Business model design	Opportunities for funding	Nutrient management and fertilisation	
10*	BG	9	Market research	Business model design	Opportunities for funding	Matchmaking	
11	IE	14	Technology scouting				
12	IE	14	Project Design and Development Advice	Scale-up advisory	Nutrient management and fertilisation	Guidance in accessing funding	Business Model design
13	IE	13	Business model design	Business mentoring	Guidance for accessing funding	Scale-up and advisory (but relates more to programme development than technology)	
14	IE	14	Policy review**				
15	NL	11	Business model design	Market research	Scale-up advisory	Technology scouting	
16	NL	13	Technology scouting	Business model design	Market research		
17	PL	13	Scale-up advisory	Guidance in accessing funding	Matchmaking		
18	PL	14	Matchmaking	Nutrient management and fertilisation			
19	PL	12	Scale-up advisory	Guidance in accessing funding	Matchmaking (2nd priority)		
20	PL	14	Market analysis	Guidance in accessing funding	Technology scouting		
21	PL	9	Matchmaking	Guidance in accessing funding	Market analysis		
22	PL	12	Matchmaking	Project design and			

Case nº	MIP / Country	Score (0 to 14)	Service requested 1	Service requested 2	Service requested 3	Service requested 4	Service requested 5
				development advice			
23	ES	11	Market research				
24	ES	14	Project design and development advice	Business model design/Technology scouting	Technoeconomic analysis		
25	SE	13	business model design & optimisation	market analysis	matchmaking		
26	SE	13	market analysis	matchmaking	guidance in accessing funding		
27	SE	13	Techno-economic analysis	market analysis	guidance in accessing funding	Scale up advisory + related fields	
28	SE	11	matchmaking	Scale-up advisory	technoeconomic analysis		
29	SE	8	Scale-up advisory	guidance in accessing funding			
30	SE	7 + 6	Nutrient management and fertilisation				
31	DK	12	Business model design	Scale-up advisory	Market research		
32	DK	11	Market analysis	Matchmaking	Scale-up advisory		
33	DK	10	Matchmaking	Scale-up advisory			
34*	DK	13	Market research	Scale-up advisory			
35*	DK	13	Market research	Scale-up advisory			
36	IE	14	Project design and development advice	Business model design	Market analysis	Matchmaking	

***Cases to be supported in the Second Innovation Round.**
****Service not included in the original portfolio.**

On October 2023, MIP leaders and service providers participated in a joint online meeting to distribute the cases among the service providers. Finally, the distribution among partners was as follows: Q-PLAN: 10, MTU: 2, WR: 4, IUNG: 4, PROC: 7, AUP: 4, FBCD: 2, and INNV: 9 (see Figure 2). Likewise, the final list of allocated services can be found in Table 3. The provision of the innovation support services started in November 2023 (see section 3).

As a result, **42 services were allocated to the 32 applications considered in the First Round**. Thereby, all applicants received at least one service. Some cases were transferred between MIPs because the requested service was offered in a different MIP but also to accommodate resources.

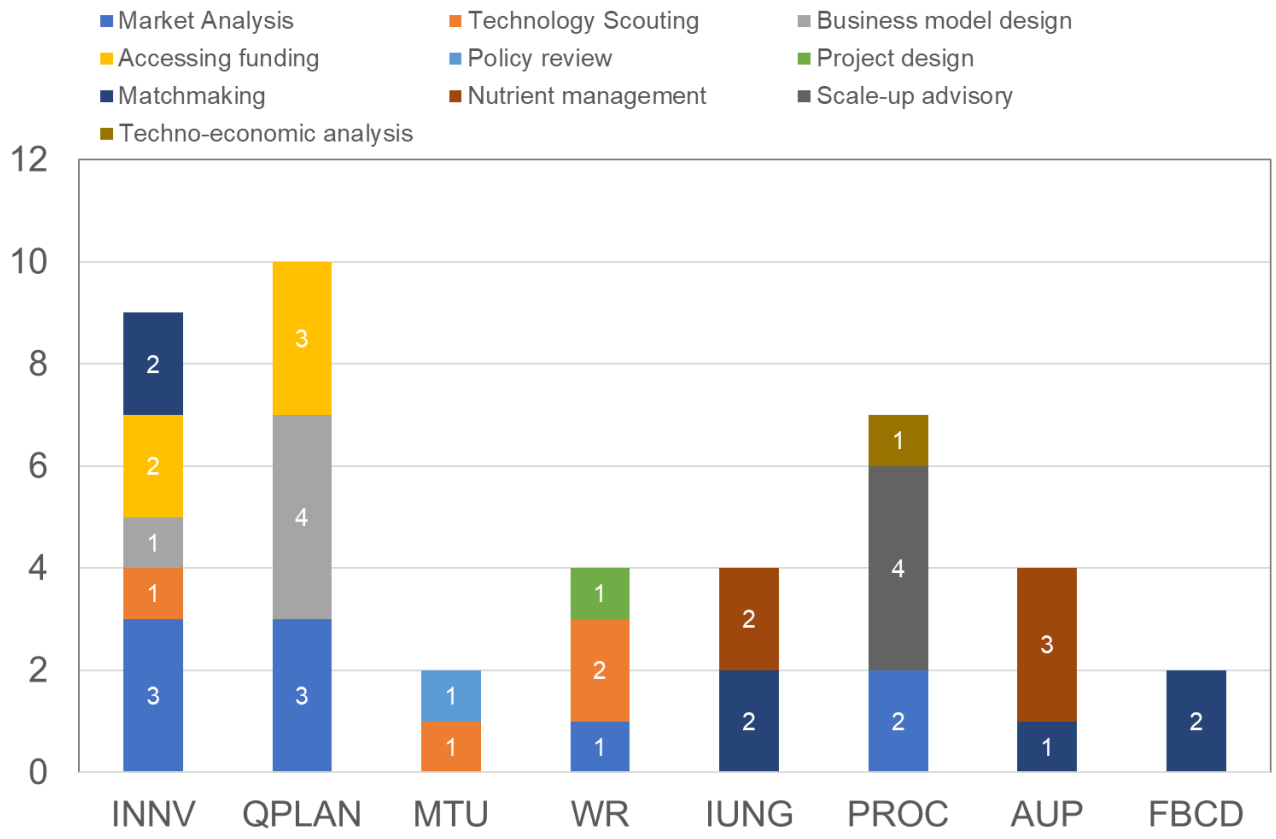


Figure 2. Distribution of innovation support services between the different service providers.

Table 3. Allocation of innovation support services and distribution among service providers.

Case nº	Type (bio-based product/service)	MIP / Country	Individual or MAP	Allocated service 1	Service provider 1	Allocated service 2	Service provider 2
Case 1*	*Business (biofertiliser)*	*BG*	*Individual*	*Market analysis*	*Q-PLAN*		
Case 2	Business (organic products)	BG	Individual	Guidance in accessing funding	INNV		
Case 3	Business (honey products)	BG	Individual	Business model design	Q-PLAN	Business model design	Q-PLAN
Case 4	Business (protein products)	BG	Individual	Scale-up advisory	PROC		
Case 5	Business (policy services)	BG	Individual	Matchmaking	AUP	Nutrient management and fertilisation	AUP
Case 7	Business (seeds)	BG	Individual	Nutrient management and fertilisation	AUP		
Case 8*	*Business (wine)*	*BG*	*Individual*	*Business model design*	*Q-PLAN*	*Guidance in accessing funding*	*Q-PLAN*
Case 9	Research (asparagus products)	BG	Individual	Nutrient management and fertilisation	AUP		
Case 11*	*Cooperative (biomass production)*	*IE*	*Individual*	*Technology scouting*	*MTU*		
Case 12	*Business (biomass production)*	IE	Individual	BM design	Q-PLAN	*Guidance in accessing funding***	*Q-PLAN*
Case 13	Business (educational services)	IE	Individual	Guidance in accessing funding	Q-PLAN		

Case nº	Type (bio-based product/service)	MIP / Country	Individual or MAP	Allocated service 1	Service provider 1	Allocated service 2	Service provider 2
Case 14*	Cooperative (hemp producers)	IE	Individual	Policy review *	MTU		
Case 15	Business (beer production)	NL	MAP (2 members)	Market analysis	WR	Technology scouting	WR
Case 16	Business (vinegar production)	NL	MAP (2 members)	Technology scouting	WR	Business model design	Q-PLAN
Case 17	Business (bioplastics)	PL	Individual	Scale-up advisory	PROC		
Case 18	Public authority (environmental services)	PL	Individual	Matchmaking	IUNG	Nutrient management and fertilisation	IUNG
Case 19	Business (biofungicides + biostimulants)	PL	Individual	Matchmaking	INNV		
Case 20	Farmer (horticulture)	PL	Individual	Market analysis	INNV	*Guidance in accessing funding***	*INNV*
Case 21	Business (pest detection)	PL	Individual	Matchmaking	INNV		
Case 22	Business (biostimulants)	PL	Individual	Matchmaking	INNV		
Case 23	Farmer (livestock)	ES	Individual	Market analysis	INNV		
Case 24	Cooperative (biomass producers)	ES	Individual	Market analysis	INNV	Technology scouting	INNV
Case 25	Business (birch bark)	SE	Individual	Market analysis	PROC		

Case nº	Type (bio-based product/service)	MIP / Country	Individual or MAP	Allocated service 1	Service provider 1	Allocated service 2	Service provider 2
Case 26	Business (environmental services)	SE	Individual	Market analysis	PROC		
Case 27	Business (packaging material)	SE	MAP (2 members)	Market analysis	Q-PLAN	Techno-economic analysis	PROC
Case 28	Business (ingredient supplier)	SE	Individual	Scale-up advisory	PROC		
Case 29	*Business (lignin recovery)*	*SE*	*Individual*	*Scale-up advisory*	*PROC*		
Case 30	Business (biocompost)	SE	Individual	Nutrient management and fertilisation	IUNG		
Case 31	Business (logistics platform)	DK	MAP (2 members)	Business model design	INNV	Market research	Q-PLAN
Case 32	Business (biodegradable cups)	DK	Individual	Matchmaking	FBCD		
Case 33	*Business (biogas production)*	*DK*	*Individual*	*Matchmaking*	*FBCD*		
Case 36	Farmer (biomass producer)	IE	Individual	Project design & development advice	WR		

The provision of services for cases 6, 10, 34 and 35 was postponed to the 2nd round of innovation support, so they are not shown in this table.

***Case asked for support service not included in the list, but the KAM of the MIP (MTU) has the expertise and was willing to provide this service.**

**Once the service distribution was done and the provision of services had started, Cases 1 and 8 communicated that they wanted to withdraw their participation. Also, cases 11, 29 and 33, as well as cases 12 and 20 for only the second service, communicated that they preferred to receive the service in the second Open call due to time constraints.

2.4 Second Open Call

2.4.1 *Launch of the Second Open Call*

Once all the MIPs had received the reviewed guidelines to support their respective open call in M22, they planned their launches from M23 to M25. The launching dates and duration of the Second Open Call in each of the MainstreamBIO regions were as indicated below:

- Netherlands (WR) Date: 15th July – 20th September 2024
- Spain (INNV) Date: 30th August – 30th September 2024
- Ireland (MTU) Date: 26th July – 31st August 2024
- Denmark (FBCD) Date: 8th August – 30th September 2024
- Sweden (PROC) Date: 1st September – 30th September 2024
- Bulgaria (AUP) Date: 1st September – 30th September 2024
- Poland (IUNG) Date: 1st September – 30th September 2024

WHITE, with inputs from all partners, updated the project's website dedicated to the Open Call (https://mainstreambio-project.eu/open-call/, see Figure 3) and announced the new dates for the Second Open Call launched in each MIP region.

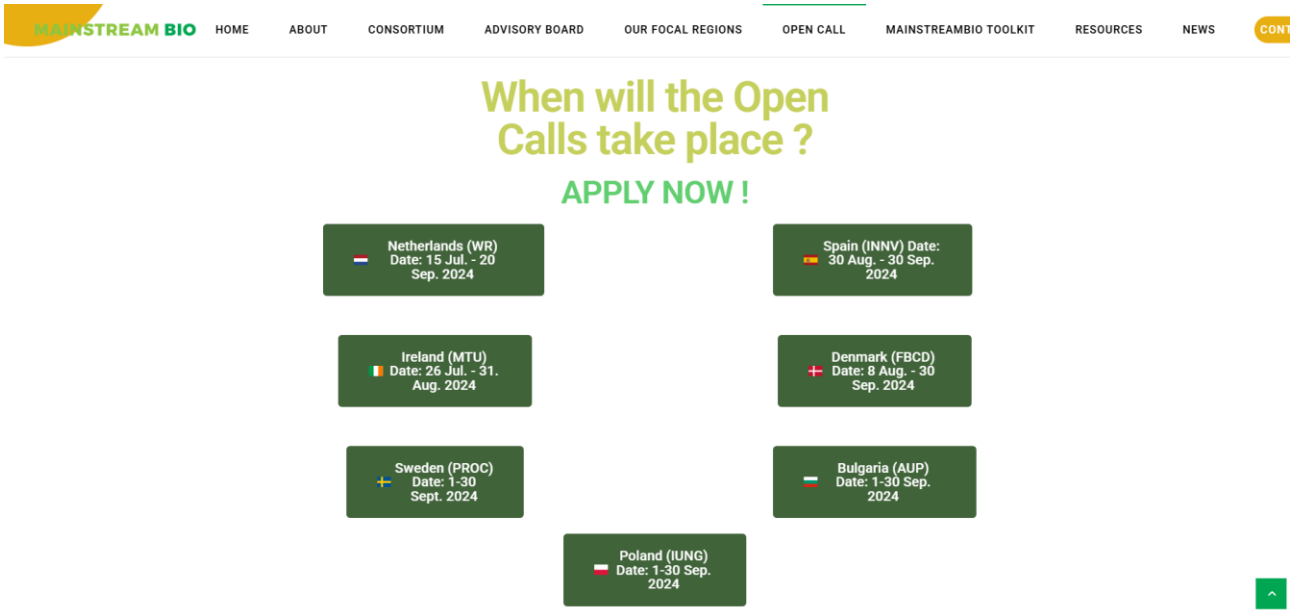


Figure 3. Screenshot of part of the Open Call page in the MainstreamBIO website.

Additionally, each MIP promoted the Open Call in their respective social media channels and networks to encourage potential participants (Figure 4).

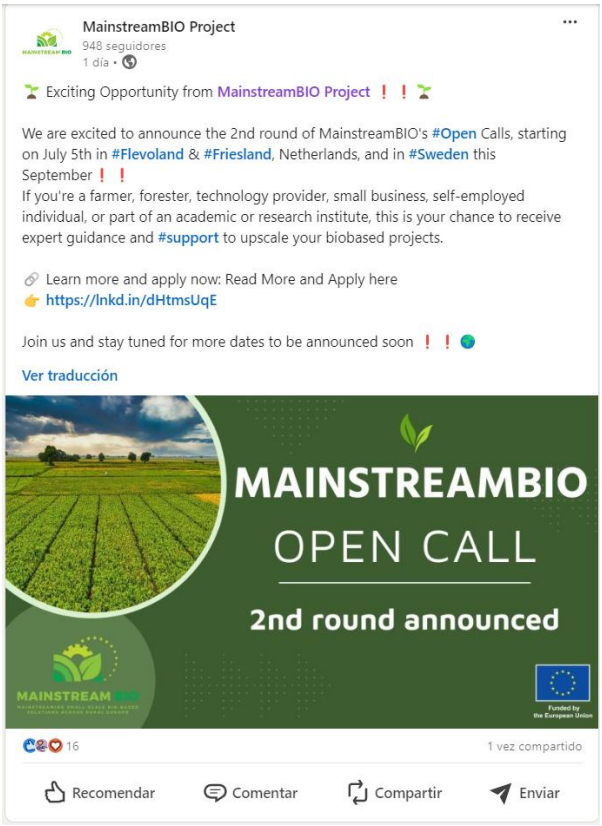


Figure 4. Post in the LinkedIn account of the MainstreamBIO project announcing the calls in the Second Round.

2.4.2 *Evaluation of Cases*

After the closure of the corresponding Open Call, each MIP evaluated the applications they had received in their region using the Evaluation Criteria Matrix, which was updated since round 1, resulting to a possible total score of 16 instead of 14 as it was in the First Open Call, see Annex 3. There was not a requirement to meet all criteria. The criteria were intended as support for the assessment. MIP leaders invited MIP members to a hybrid meeting (physical attendance and online to promote participation) to assess each application case by case. First, applicants were checked for compliance with eligibility criteria. The eligible applications were then evaluated attending to the different categories stated, and a final score of 0-16 points was assigned to each application (each "YES" in the matrix gave 1 point to the application. As a result, each MIP generated a list of cases ordered from highest to lowest score. Afterwards, it was used as a base for discussion with all the MIPs and service providers to select and distribute cases among them according to their resources. Table 4 lists the applications received in each MIP, the services requested, and the score received. A total of 18 new applications or cases (mostly individual but with the potential of becoming a MAP during the service period, and only three applications with MAPs), were received in the 7 MIPs during the second round, with a total of 59 services requested (73 with the cases left from round 1). Seven cases remained from round 1, however after contact none of the applicants were interested in

receiving innovation support in the second round. One case (case 55) was added later after Case 45 withdrew their participation.

Table 4. List of applications received in each MIP in round 2 as well as the seven cases that were left from round 1, indicating the services requested and the final evaluation score received from the corresponding MIP.

Case nº	MIP / Country	Score (0 to 16)	Service requested 1	Service requested 2	Service requested 3	Service requested 4	Service requested 5
Case 6*	BG	11	Market research				
Case 10*	BG	9	Market research	Business model design	Opportunities for funding	Matchmaking	
Case 11*	IE	14	Technology scouting				
Case 29*	SE	8	Scale-up advisory	Guidance in accessing funding			
Case 33*	DK	10	Matchmaking	Scale-up advisory			
Case 34*	DK	13	Market research	Scale-up advisory			
Case 35*	DK	13	Market research	Scale-up advisory			
Case 37	BG	13	Technological and economic analysis	Mentoring	Matchmaking	Opportunities for funding	Scale-up advisory
Case 38	IE	16	Nutrient management and fertilisation/ Scale-up advisory	Technology scouting	Project design and development advice	Matchmaking	Business model design and optimisation
Case 39	IE	16	Scale-up advisory	Project design and development advice	Technology scouting	Matchmaking	Business mentoring
Case 40	ES	11	Business mentoring	Business model design and optimisation			
Case 41	ES	9	Business model design and optimisation	Business mentoring			
Case 42	ES	12	Technology scouting	Matchmaking	Guidance in accessing funding		
Case 43	ES	14	Market analysis	Business model design and optimisation			
Case 44	DK	13	Business model design and optimisation	Market analysis	Mentoring	Funding	Matchmaking
Case 45**	DK	15	Technology scouting	Nutrient and fertiliser management			
Case 46**	DK	14	Advice on implementation of pilot projects	Consulting on scaling up	Market analysis (analysis and insights into consumer and industry behaviour)	Matchmaking (customers, partners, investors etc.)	
Case 47	DK	14	Technology scouting	Market analysis (analysis and insight into consumer and industry behaviour)	Business mentoring (bioeconomy consulting)	Funding (match with relevant R&I funding and EU programs)	Matchmaking (customers, partners, investors etc.)

Case 48	NL	15	Matchmaking (customers, partners, investors etc.)				
Case 49	NL	16	Technology scouting	Matchmaking			
Case 50	SE	14	Techno-economic analysis	Guidance in accessing funding	Scale-up advisory		
Case 51	SE	13	Techno-economic analysis	Market analysis	Guidance in accessing funding	Matchmaking	
Case 52	SE	8	Guidance in accessing funding	Scale-up advisory	Matchmaking	Business mentoring	
Case 53	PL	15	Matchmaking	Market analysis	Opportunities for funding		
Case 54	NL	16	Policies review***				
Case 55****	DK	14	Nutrient and fertiliser management				

* Left from round 1
** Cases withdrew their application after the distribution and allocation of the service.
***Service not included in the original portfolio.
**** Replaced case 45.

Table 4 collects all the applications received (19 cases) as well as the cases left from Round 1 (7 cases), including the services they were aiming for and the final evaluation score given by the MIP based on the Evaluation criteria matrix. The seven applicants left from Round 1 (cases 6, 10, 11, 29, 33, 34 and 35) clarified that they were not interested in receiving innovation support in the Second Round. Therefore, only 18 applications passed to the following stage in the process, i.e., the distribution and allocation of services. However, one applicant (Case 46) withdrew their application in December 2024 after the allocation of services due to other engagements. Also, case 45 gave notice that they would not be able to receive any innovation service due to company's reconstruction. Case 45 was later replaced with Case 55.

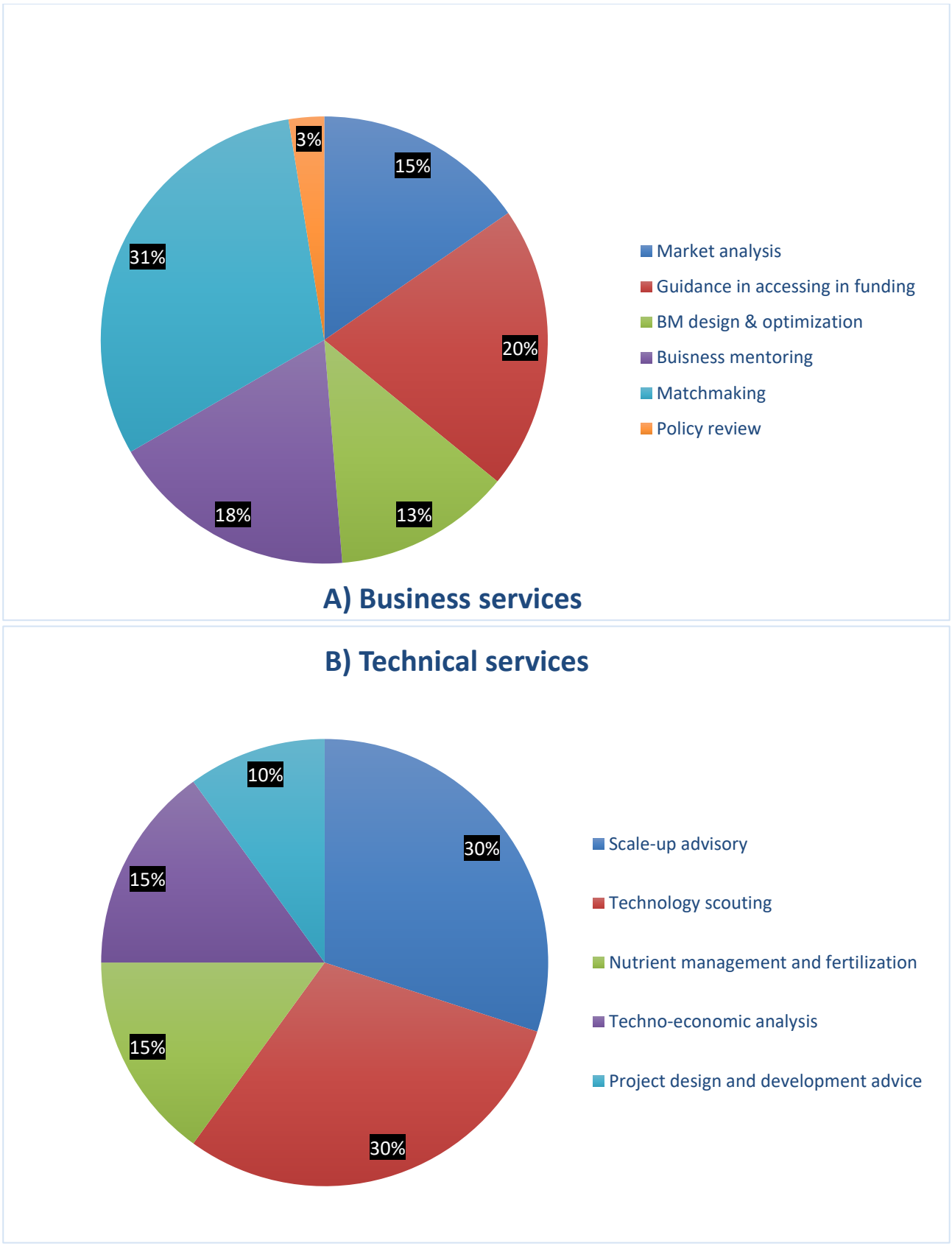


Figure 5. Demand for innovation support services in the Second Open Call divided into A) Business services and B) Technical services.

The most requested business service was Matchmaking (31%), followed by Guidance in accessing funding (20%), Business mentoring (18%) and Market analysis (15%), see Figure 5A. The most

requested technical services were Scale-up advisory and Technology scouting (both 32%), followed by Techno-economic analysis and Nutrient management and fertilisation (both 15%), as shown in Figure 5B. There was one specific application that requested Policy Review as the sole service, which was not included in the service portfolio. Since MTU has the knowledge and expertise to provide this type of support, this application was also considered for the next stages in the selection of cases.

In the following table, the total number of applications for each service and each Open Call is provided.

Table 5. Applications to the Open Calls by service.

	First Open Call	Second Open Call	Total	
Project design and development advice	5 (4.9%)	3 (5.1%)	8 (5.0%)	Technical services 58 (36%)
Technology scouting	8 (7.8%)	6 (10.2%)	14 (8.7%)	
Scale-up advisory	14 (13.7%)	5 (8.5%)	19 (11.8%)	
Techno-economic analysis	4 (3.9%)	3 (5.1%)	7 (4.3%)	
Nutrient management and fertilisation	7 (6.9%)	3 (5.1%)	10 (6.2%)	
Business model design and optimisation	12 (11.8%)	5 (8.5%)	17 (10.6%)	Business services 103 (64%)
Market analysis	18 (17.6%)	6 (10.2%)	24 (14.9%)	
Business mentoring	2 (2.0%)	7 (11.9%)	9 (5.6%)	
Guidance in accessing funding	15 (14.7%)	8 (13.6%)	23 (14.3%)	
Matchmaking	16 (15.7%)	12 (20.3%)	28 (17.4%)	
Other (Policy review)	1 (1.0%)	1 (1.7%)	2 (1.2%)	
Total	**102**	**59**	**161**	

2.4.3 *Allocation of cases among service providers*

On 23rd October 2024, MIP leaders and service providers participated in a joint online meeting to distribute the cases among the service providers. Before the meeting, all MIP leaders had added

information about their nominated potential cases in a created Excel-file and also to estimate the number of services they could provide during the Second Innovation Round, resulting in the following available number of services: Q-PLAN: 3-5, MTU: 2, WR: 1-2, IUNG: 2-3, PROC: 2-3, AUP: 4, FBCD: 3 and INNV: 7; so the consortium had the capacity to provide a total of 24-29 services to the applicants in this Second Innovation Round.

Then, the total services requested in all the applications were ordered in a list according to the following criteria:

- Eligible applications (fulfilling eligibility criteria)
- Order of preference of services requested (if applicant requested two or more services)
- Provision of services to own MIPs/region (avoid language barrier)
- Providing at least 1 service per application
- Evaluation score (0 – 16)
- At least one case per MIP would receive 2 support services if possible (fair geographical distribution).
- As a result, **23 services were allocated to the 17 applications considered in the second round** (since two applicants withdrew and one was added). Thereby, all applicants received at least one service. Some cases were transferred between MIPs because the requested service was offered in a different MIP but also to accommodate resources.

Figure 6 shows the result of the distribution of innovation support services among the service providers in the different MIP regions. Likewise, the final list of allocated services can be found in Table 6.

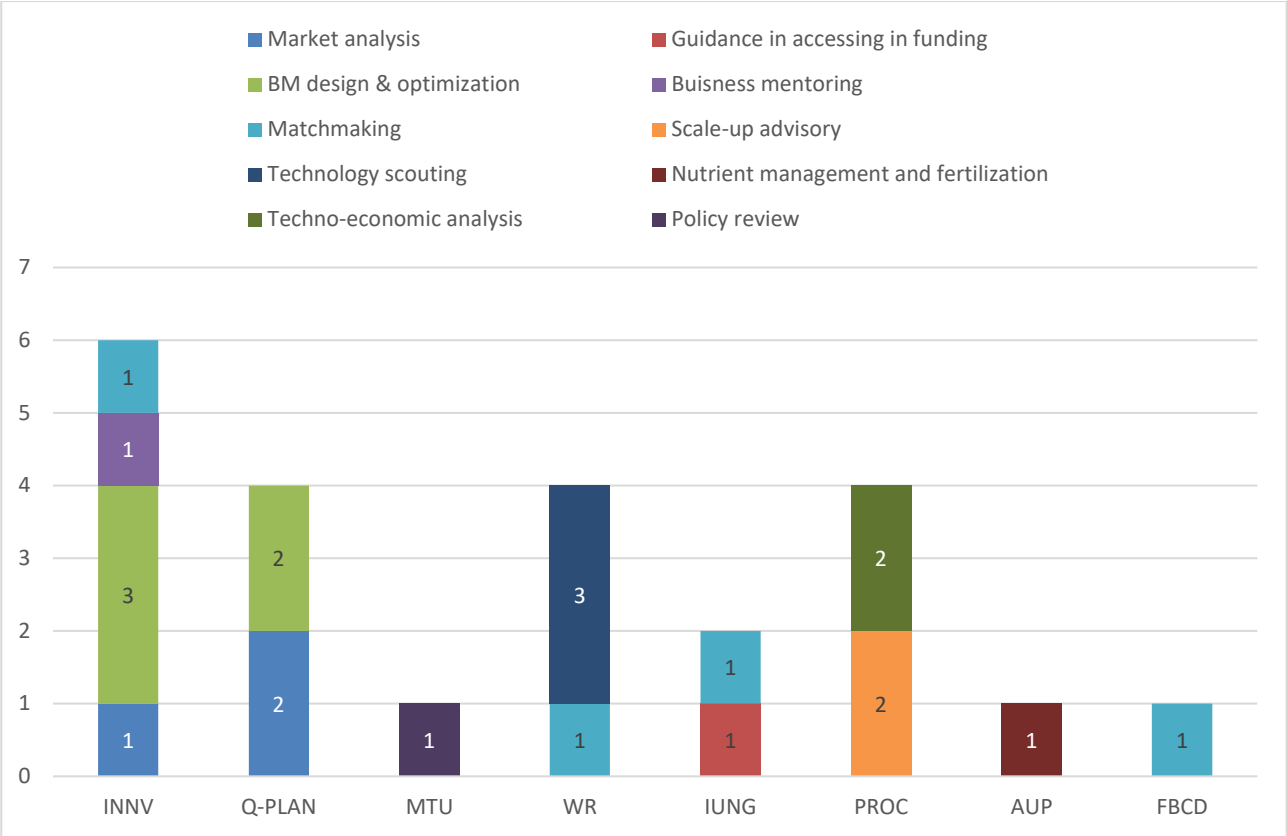


Figure 6. Distribution of innovation support services between the different service providers.

Table 6. Allocation of innovation support services and distribution among service providers.

Case nº	Type (bio-based product/service)	MIP / Country	Individual, MAP, potential MAP	Allocated service 1	Service provider 1	Allocated service 2	Service provider 2
Case 37	Service	BG	Individual	Business mentoring	Q-PLAN		
Case 38	Service	IE	Potential MAP	Technology scouting	WR	Business model design	Q-PLAN
Case 39	Service	IE	Individual	Scale-up advisory	PROC	Market analysis	Q-PLAN
Case 40	Product	ES	Potential MAP	Business mentoring	INNV		
Case 41	Service	ES	Individual	Business model design and optimisation	INNV		
Case 42	Product	ES	MAP	Technology scouting through DSS****	WR	Matchmaking	INNV
Case 43	Service	ES	Individual	Market analysis	INNV	Business model design and optimisation	INNV
Case 44	Service	DK	Potential MAP	Business model design and optimisation	INNV		
Case 45*	Product	DK	Potential MAP	Nutrient management and fertilisation	AUP		
Case 46*	Product	DK	Potential MAP	Market analysis	Q-PLAN		
Case 47	Product	DK	Potential MAP	Market analysis	Q-PLAN	Matchmaking	FBCD
Case 48	Service	NL	Potential MAP	Matchmaking	WR		
Case 49	Service	NL	Potential MAP	Technology scouting	WR		
Case 50	Product	SE	Potential MAP	Techno-economic analysis	PROC		
Case 51	Product	SE	Potential MAP	Techno-economic analysis	PROC		
Case 52	Product	SE	MAP	Scale-up advisory	PROC		
Case 53	Service	PL	Potential MAP	Matchmaking	IUNG	Guidance in accessing funding	IUNG
Case 54	Service	NL	MAP	Policy advice/review***	MTU		
Case 55**	Product	DK	Potential MAP	Nutrient and fertiliser management	AUP		

* Once the service distribution was done and the provision of services had started, Cases 45 and 46 communicated that they wanted to withdraw their participation.
** Case 55 replaced Case 45 after they withdrew their participation.
***Case asked for support service not included in the list, but the KAM of the MIP (MTU) has the expertise and was willing to provide this service.
**** Decision Support System, part of MainstreamBIO's digital toolkit.

2.4.4 *Granting and enrolment of participants*

The beneficiaries of the granted applications were finally notified and received the corresponding terms of reference (Annex IV – Terms of Reference), which would enrol them in the project after their agreement and signature. After that, the provision of the innovation support services started in November 2024 (Task 3.3, see section 3).

3. Second Innovation Round: provision of innovation support services

The delivery of the innovation support services is included in Task 3.3. This task offers hands-on support to the multi-actor partnerships and innovators selected under Task 3.1 (see section 2).

The Second Round of services started in November 2024 (M27), after the notification to the granted participants in the call and their acceptance and signature of the Terms of Reference.

As mentioned in Table 6, some cases dropped after being granted. To clarify, Tables 7 and 8 provide the cases that have been finally completed in the Second Innovation Round organised by type of service, with details of the number of cases and support providers.

Table 7. Summary of the cases supported in the Second Innovation Support round.

Case number (country)	Provided service	Provider
Case 37 (BG)	Business mentoring	Q-PLAN
Case 38 (IE)	Technology scouting	WR
	Business model design and optimisation	Q-PLAN
Case 39 (IE)	Scale-up advisory	PROC
	Market analysis	Q-PLAN
Case 40 (ES)	Business mentoring	INNV
Case 41 (ES)	Business model design and optimisation	INNV
Case 42 (ES)	Technology scouting*	WR
	Matchmaking	INNV
Case 43 (ES)	Market analysis	INNV
	Business model design and optimisation	INNV
Case 44 (DK)	Business model design and optimisation	INNV
Case 47 (DK)	Market analysis	Q-PLAN
	Matchmaking	FBCD
Case 48 (NL)	Matchmaking	WR
Case 49 (NL)	Technology scouting	WR
Case 50 (SE)	Techno-economic analysis	PROC

Case number (country)	Provided service	Provider
Case 51 (SE)	Techno-economic analysis	PROC
Case 52 (SE)	Scale-up advisory	PROC
Case 53 (PL)	Matchmaking	IUNG
	Guidance in accessing funding	IUNG
Case 54 (NL)	Policy advice/review	MTU
Case 55 (DK)	Nutrient and fertiliser management	AUP

*** The technology scouting was provided coupled to the Decision Support System included in the MainstreamBIO's digital toolkit.**

In summary, **17 cases** were supported in the Second Innovation Round, providing **23 services** in total.

In summary, the number of services provided by each partner was: INNV: 6, Q-PLAN: 4, PROC: 4, WR: 4, IUNG: 2, AUP: 1, FBCD: 1, and MTU: 1. In Figure 7, the total number of services provided by each service provider is shown. On top of that, it is worth mentioning that MTU has provided 3 matchmaking to IE cases, not counted as applications or services, with the goal of creating MAPs. These MAPs are counted in Table 9, and MTU has provided reports for each of these matchmaking activities.

Table 8. Summary of the innovation support services provided in the Second Innovation Support round.

Service	Total	Service provider
Project design and development advice	-	WR
Technology scouting	-	KAM (MTU)
	3	KAM (WR)
	-	KAM (IUNG)
	-	KAM (PROC)
	-	KAM (AUP)
	-	KAM (FBCD)
	-	KAM (INNV)
Scale-up advisory	2	PROC
Techno-economic analysis	2	PROC

Nutrient management and fertilisation	-	IUNG
	1	AUP
Business model design and optimisation	3	INNV
	1	Q-PLAN
Market analysis	1	INNV
	2	Q-PLAN
	-	PROC
Business mentoring	1	INNV
	1	Q-PLAN
	-	PROC
Guidance in accessing funding	-	INNV
	-	Q-PLAN
	-	PROC
	1	KAM (IUNG)
Matchmaking	-	KAM (MTU)
	1	KAM (WR)
	1	KAM (IUNG)
	-	KAM (PROC)
	-	KAM (AUP)
	1	KAM (FBCD)
	1	KAM (INNV)
Other (Policy review)	1	MTU

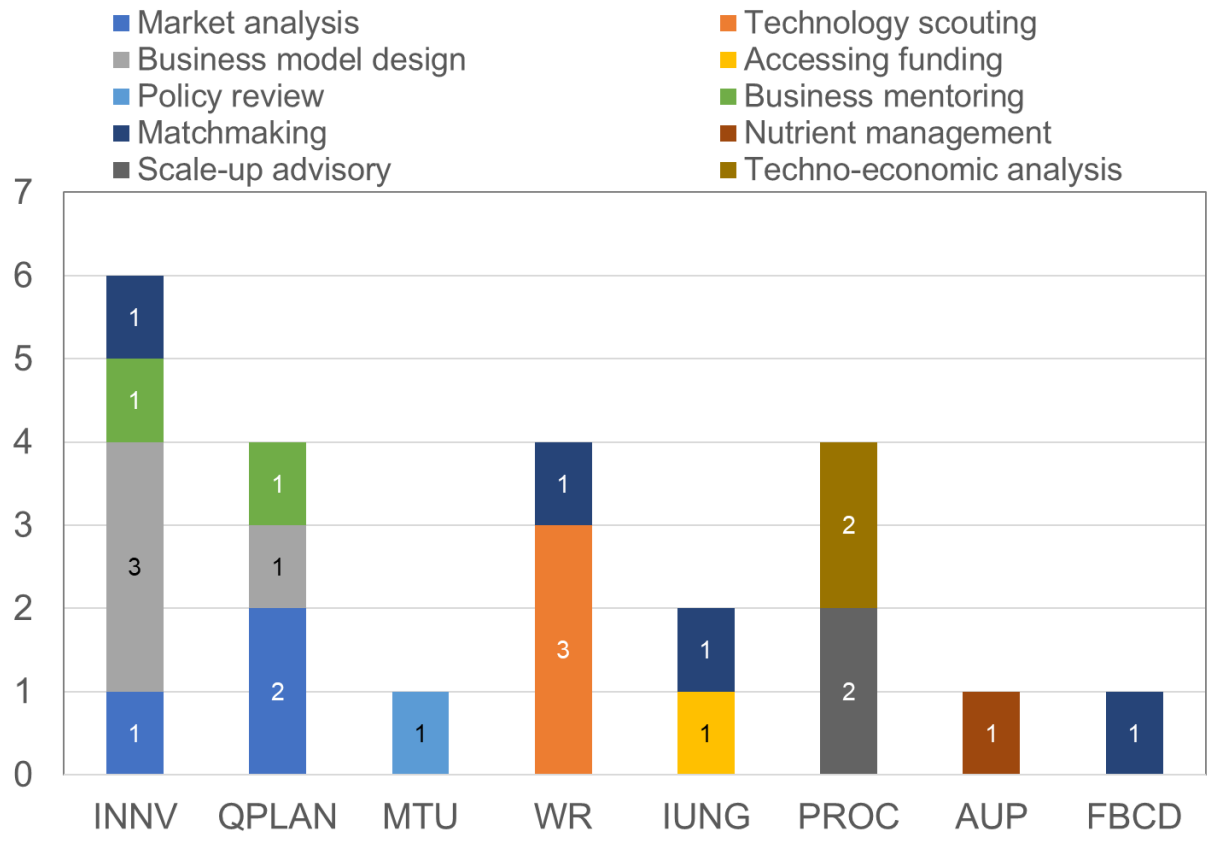


Figure 7. Final list of innovation support services provided in the Second Innovation Round by service provider.

In the following sections, the actual services provided, dates and outcomes are thoroughly described, respecting the confidentiality of each case.

3.1 Service provision

In the following subsections, information about the Second Innovation Round cases, dates of the service meetings and outcomes is provided, organised by type of service provided.

The service provision started in November 2024 (M27) and finished mostly in May-June 2025 (M33-34), with the last reports delivered in July 2025 (M35).

3.1.1 *Technology scouting (WR and KAMs)*

Case 38 consists of an Irish company which aims to support rural farmers in reducing nitrogen emissions and participating in the biomethane sector through decentralised, drop-in AD systems. The company is pursuing funding through various Irish and EU schemes and plans to scale operations across three European countries by 2029. WR provided technology scouting services, while Q-PLAN delivered the Business model design and optimisation (see section 3.1.5).

- 23rd January 2025: The company presented its concept and business model options to WR. Three business scenarios were discussed: i) Centralised gas upgrading and sales, ii)

On-farm upgrading and market sales, and iii) Direct gas sales. Four technical configurations were analysed, varying slurry, silage, and water ratios. Financial projections were shared with and without grants.

- 18th March 2025: WR presented a draft technology scouting report. Key updates included: i) Confirmation that no major technical or economic elements were overlooked, ii) notification that a key supplier had gone bankrupt, and iii) requests for further insights on digestate value, biogas pricing, business strategy for small-scale anaerobic digestion (AD), and feasibility of gas agitation.
- 8th April 2025: An updated report was delivered, addressing previous queries:
  - Digestate and Biogas Value: Digestate could displace artificial fertilisers.
  - Business Strategy: The environmental case for small-scale AD is strong, but the economic case remains tight. Grants are essential for viability, yet current Irish schemes favour larger installations.
  - Technical Feasibility: Concerns were raised about the short hydraulic retention time, high organic loading rate, and unvalidated gas agitation method. Additional testing was recommended.
  - Case Studies: Comparative analysis showed that while environmental benefits are clear, economic viability is often marginal without subsidies. Successful models often involve co-location or cooperative approaches.

Case 42 is a MAP Spanish slaughterhouse which wanted to identify feasible and sustainable valorisation options for the slaughterhouse's diverse waste streams. WR provided the service, with INNV help for translation during the meetings. INNV provided the service Matchmaking to this case (see section 3.1.9).

- 13th January 2025: During the first meeting, information on the place, scale, type of wastes, current equipment, etc., was gathered. The slaughterhouse is small-scale and placed in a rural location, so it faces logistical and economic challenges. The wastes are most of them Type 3, with some Type 1, which requires destruction. The slaughterhouse was interested in options (a catalogue) for which technology would best fit which residue.
- 13th March 2025: a first explanation of the technology scouting outcomes was provided. Explanations about the specific type of residue and the pre-treatments were provided by the slaughterhouse to better select the best options. With that in mind, WR could evaluate the need and feasibility of implementing pretreatments or acquiring new equipment to make their waste more attractive to companies specialising in valorisation. The slaughterhouse was open to two scenarios: Acquiring and performing the full valorisation technology themselves, or acquiring and performing a preliminary step (e.g., pretreatment) that increases the value of the residues for further processing into final products by external companies.
- The report was delivered on the 28th March 2025. The document describes the eleven different waste streams generated; their category, quantity, current processes, costs, revenues and current outlets of the products made from the waste. The Decision Support System (DSS) of MainstreamBIO's digital toolkit was used for that end. A general analysis

is included, followed by a long list of 25 possible feedstock-technology-product combinations for the category 3 waste streams. Six of them, selected as the most promising, are explained in detail.

Case 49 is a Dutch company operating a thin-layer cascade photobioreactor system for microalgae cultivation. WR provided technology scouting support to assess the feasibility of using residual organic streams as feedstock for algae production.

- 14th April 2025: In the first meeting, WR and the company discussed the scope of the technology scouting service. The installation was already operational at their test site. The service was structured around five sub-topics: residual organic streams, algal growth on these streams, product applications, mass balance, and legal aspects.
- 14th May 2025: During the second meeting, WR presented the draft report. Discussions focused on regulatory distinctions between food and feed applications, the use of manure as a nutrient source, and the implications of organic certification.
- 23rd June 2025: The third meeting addressed regulatory aspects in detail. The legal status of algae grown on residual organic flows was reviewed, including interpretations of the Waste Framework Directive and Animal By-Product Regulations. Legal classification of the feedstock (e.g. manure vs. digestate) significantly affects the regulatory pathway for end products. The report includes detailed tables on nutrient inhibition, biomass productivity, and EU legislation relevant to food, feed, and fertiliser applications. The final report was delivered on 18th July 2025.

3.1.2 *Scale-up advisory (PROC)*

Case 39 scale-up advisory service was provided by PROC to an Irish innovative company focused on converting brewery and distillery by-products into protein-rich biomass and enzymes. This case also received the Market analysis service (see section 3.1.6) by Q-PLAN.

- 9th January 2025: The first meeting focused on understanding the company's process and infrastructure needs. The company presented its decentralised biorefinery concept and its goal to engage feed companies across Europe. Discussions on technical and economic feasibility were started.
- 15th April 2025: A series of meetings between January and April explored microbial strain selection, reactor design, and process scalability. PROC introduced expertise from fungal single-cell protein projects and proposed alternative strains and design improvements. Discussions addressed durability, contamination risks, and mass transfer limitations.
- 30th May 2025: The final report delivered a roadmap for scale-up and value-added applications. Recommendations included:
  - Optimising reactor design for lightweight, cost-effective, and high-yield performance.
  - Exploring alternative microbial strains to enhance product value and reduce feedstock dependency.

- Investigating material-based applications to diversify offerings and increase profitability.

The advisory also opened opportunities for future collaboration between PROC and the company, including potential joint development and funding opportunities.

Case 52 is a Swedish MAP aiming to establish a small-scale biorefinery for converting used cooking oil into biodiesel. PROC provided scale-up advisory support, evaluating the technical feasibility, regulatory compliance, and economic viability of the proposed process.

- 7th November 2024: In the first meeting, the MAP presented its business idea and requested support in evaluating an American biodiesel production technology. The team discussed the availability of Used Cooking Oil in the municipality, with an initial estimate of litres per year from local restaurants. Key concerns included the lack of data from the municipal waste authority, the need for off-take agreements to improve circularity, and the handling of biohazardous waste streams.
- 17th December 2024: The second meeting focused on refining the preliminary scale-up steps. PROC reviewed the technology and identified missing cost factors such as consumables and waste disposal. The process was deemed simple but lacking in detailed flow data. CAPEX and OPEX estimates were initiated, and discussions with the municipal waste authority were planned to clarify feedstock availability and quality.
- 12th February 2025: In the third meeting, PROC presented a more detailed techno-economic analysis. The American technology was found to lack recycling components and waste handling, and the produced biodiesel would unlikely meet EU biodiesel standards. Calculations showed the break-even price, which was far above the market price. The proposed production volume was deemed too low for profitability. Recommendations included switching to rapeseed oil as feedstock and scaling up the quantity.
- 11th March 2025: The final meeting addressed engineering and safety concerns with the American technology. Issues included a lack of ATEX certification, high methanol consumption, and poor reactor design. Calculations were presented for three scenarios: selling out-of-spec biodiesel, using it as heating oil, and producing heating oil from rapeseed oil. All scenarios showed negative financial indicators. The team concluded that the scale must be significantly increased, and alternative equipment should be considered. The final report was finally delivered on the 14th March 2025.

3.1.3 *Techno-economic analysis (PROC)*

Case 50 corresponds to a Swedish company producing biodegradable, fossil-free ski wax. PROC provided a techno-economic analysis (TEA) to support the company's transition from a small-scale, part-time operation to a full-time, scalable business.

- 16th January 2025: In the first meeting, the current production setup and long-term vision were discussed. The company, currently producing on-demand in small batches aims to become self-sufficient within 2–3 years and hire its first employee. Key topics included raw

material sourcing, production volumes, and cost structures. The company shared recipes, ingredient lists, and initial product cost calculations. PROC committed to reviewing ingredients, estimating costs for increased volumes, and identifying potential suppliers.

- 14th March 2025: The second meeting focused on refining assumptions for the TEA. While supplier quotes were still pending, PROC used company's data to begin modelling. Discussions covered cost components such as salaries, energy, shipping, and packaging. It was noted that small-scale production is costlier per unit, but scaling up would reduce costs. The company planned to scale gradually, targeting Swedish and European markets.
- 23rd April 2025: In the final meeting, PROC presented the TEA findings. Quotes for raw materials had been received and incorporated. The analysis showed strong potential for scale-up, with profitability achievable at higher volumes. PROC delivered a detailed report and Excel tool with cost breakdowns and profit margin estimates. The final report was delivered on the 12th May 2025.

Case 51 corresponds to a Swedish initiative (MAP) exploring the techno-economic feasibility of refining industrial hemp into glucose, lignin, and natural fibre-based products. PROC provided the techno-economic analysis to assess the viability of establishing a hemp decortication facility.

- 11th November 2024: In the first meeting, the potential for fractionating hemp into valuable components such as fibre and bast material was discussed. Challenges identified included the short growing season in northern Sweden, the need for specialised harvesting equipment, and the lack of economic incentives for sugar production from non-food crops. The team agreed to build a realistic business case, including target production volumes, facility setup, and an overview of available land and potential farmer engagement.
- 12th March 2025: The second meeting focused on refining assumptions for the TEA. A quotation for a fractionating machine had been received and was used to begin investment and cash flow calculations. Discussions included estimating costs for building an industrial facility and identifying potential public funding sources. The team also explored break-even pricing for raw materials and began modelling different financial scenarios.
- 29th April 2025: In the final meeting, PROC presented the TEA findings. Key risks identified included securing raw material supply and establishing off-take agreements. Potential applications for the fibre and hurd fractions were discussed, including textiles, composites, and paper pulp. The final report, delivered on the 26th May 2025, concluded that the investment in a hemp decortication facility is financially and strategically sound. Two scenarios were modelled: one without public funding and one with 40% support. Even without funding, the project showed a positive net present value (NPV). The analysis highlighted the importance of securing long-term supply and sales contracts to reduce risk and ensure operational stability.

3.1.4 *Nutrient management and fertilisation (IUNG, AUP)*

Case 55 corresponds to a Danish company aiming to expand into Miscanthus cultivation for sustainable biomass applications. AUP provided tailored support through a nutrient management and fertilisation advisory service, including a comprehensive manual on Miscanthus cultivation.

- 25th March 2025: In the first meeting, the company outlined its interest in Miscanthus as a sustainable biomass crop for energy, bedding, construction, and potentially textiles. Key needs included a SWOT analysis, species comparison, agronomic requirements, and European experiences. AUP proposed delivering a detailed manual covering the full cultivation cycle, from establishment to processing.
- 30th April 2025: AUP presented the first version of the manual. Discussions focused on harvesting techniques that preserve plant viability, potential uses for green leaves, fibre yield and extraction, and the feasibility of converting biomass into biodegradable plastics. The company requested further elaboration on sections a few subsections of the manual.
- 19th May 2025: AUP delivered an updated manual and presented two case studies addressing the previously raised questions. The final report included a fertilisation plan, species-specific recommendations, and a review of relevant EU and national regulations. The final document includes a full cultivation guide, a SWOT analysis, a business model canvas, and a cost-income plan for Miscanthus. It also outlines positive and negative strategic actions.

3.1.5 *Business model design and optimisation (INNV, Q-PLAN)*

Case 38 consists of an Irish renewable energy company focused on sustainable agritech solutions. Q-PLAN delivered to them the service Business model design and optimisation, while WR delivered to them the service Technology scouting (see section 3.1.1).

- 28th April 2025: The first meeting was an approach to the company's needs and current activity. They wanted to become involved in the biogas market, selling AD machines to local farmers, through installing and running the equipment, carbon farming and biochar for pyrolysis.
- 28th May 2025: In the second meeting, a first draft of the different sections of the model Canvas was reviewed and commented between both parties to better match the necessities of the company and deliver the final report.
- 13th June 2025: The service culminated in the delivery of a Triple Layered Business Model Canvas (TLBMC), developed through iterative meetings and desk research. The model integrates economic, environmental, and social dimensions:
    - Economic Layer: The business model centres on a cost-effective pyrolysis system that converts farm waste into biochar and heat. It targets dairy farmers and cooperatives, offering carbon credit management and biochar production know-how. Revenue streams include equipment sales or leasing, maintenance subscriptions, and carbon credit facilitation.

- Environmental Layer: The pyrolysis system supports circular farming by reducing emissions and enhancing soil health. Biochar is distributed locally or used on-site, while carbon credits are managed digitally. Risks such as air emissions and biomass overharvesting are acknowledged.
- Social Layer: The model promotes inclusivity and empowerment by enabling farmers to generate income from waste. It supports just transition principles and rural development through green job creation and co-creation with end users. Outreach activities include workshops and demo days. Social risks include potential access inequality for smaller farms.

Case 41 comprises a young Spanish company dedicated to extensive goat farming, the selling of goat meat and ecotourism. INNV provided the service of Business model design and optimisation to help them with new approaches regarding their ecotourism line.

- 9th December 2024: In the first meeting, the company presented their status in their 3rd year of existence. They introduced the two different placements they have to receive tourists. They stressed their need for new ideas and strategies from other national or international ecotourism and agrotourism success cases.
- 17th December 2024: In the second meeting, dozens of examples of other initiatives were shared for the two different places they have. Initiatives regarding bioconstruction, camping and glamping, as well as activities such as starlight tourism and others, and the way to reach the target users were discussed. The information sparked the interest of knowing more about the starlight and birdwatching tourism, as well as the use of domes and yurts to serve as accommodation.
- 22nd January 2025: The final meeting was performed before sending the final report on the 30th of January 2025. The final report outlines a phased strategy (three phases) to diversify the farm income through rural tourism and ecotourism. The plan focuses on two key sites, both with potential for nature-based tourism and accommodation. Recommendations are included about camping, glamping (domes, yurts, bubbles), and the restoration of traditional stone shelters using eco-construction methods. Regarding possible activities, birdwatching, stargazing, and other complementary experiences (yoga, mushroom foraging, etc.) were included.

Case 43 is a Spanish initiative focused on bioconstruction. The team aims to professionalise and expand a new business line offering consultancy services to architects, developers, and builders. INNV supported the initiative with business model design and optimisation. INNV also performed the Market analysis (see section 3.1.6).

- 5th December 2024: The first meeting served to introduce the initiative and to determine the extent of the services needed. Practical and strategic advice was provided to define and structure a new consultancy line for professionals about bioconstruction, design products and services tailored to different clients, and propose strategies to professionalise this line, including branding, marketing, and client acquisition.

- 17th December 2024: The second meeting served to present and tune the first draft of the business model design. Focus on the target users for consultancy and training sessions, as well as include a section for individuals. Price range and description of the services were asked to be also included in their website.
- 13th February 2025: a final report was prepared including a pre-analysis and recommendations, including a SWOT analysis and recommendations based on information gathered from other initiatives websites. A proposal of portfolio of services, divided by target client was created (architects, real state developers, real state builders and individuals. A Five-phase strategy was included: i) development of the business plan, ii) development of brand, webpage, and marketing, iii) signature of contracts and service providing, iv) client fidelity, and v) possible future new business lines.

Case 44 is a Danish technology startup specialising in the development of sensors for machinery used in wastewater treatment plants (WWTPs). These sensors have also been implemented in aquaculture equipment and have the potential to expand their application to pyrolysis machinery. The service Business model design and optimisation was delivered by INNV.

- 5th December 2024: A first meeting was held to know about the technology and future plans of the company, such as developing software to analyse the data generated by the sensors and store it either in the cloud or locally. Their primary market is wastewater treatment plants, with a specific focus on private companies manufacturing machinery for these plants, as they are more accessible and willing to invest in monitoring technologies. Among their current challenges, they mentioned the slow product adoption, the lack of quantified data on the savings generated by their sensor, their lack of revenue during trials, and identifying new clients. The company wanted to receive support receiving economic benefit analysis, client segmentation, market research, revenue strategy during trial periods and differentiation strategy.
- 16th December 2024: A first draft of the economic benefits of using the company's sensor was provided, as well as interesting contacts in the WWTP sector (manufacturers, software providers and others). General doubts on the data shared by the company were solved in order to prepare the final version of the report.
- 6th March 2025: A final economic benefit analysis of the sensors was reviewed. The final report was sent on 10th March 2025. Main conclusions include the calculation of the savings that the technology could provide to WWTPs, the distribution of those savings, and potential clients and digital partners.

3.1.6 *Market analysis (INNV, Q-PLAN, PROC, KAMs)*

Case 39 is an Irish biotech company which wanted to evaluate the market potential of their mobile mini pilot fermentation system for valorising brewery and distillery side streams. The service was provided by Q-PLAN, while this case also received the service Scale-up advisory provided by PROC (see section 3.1.2).

- 29th April 2025: The first meeting explored the company's concept —a decentralised, automated fermentation unit producing protein-rich microbial biomass and enzymes. The aim was to identify viable markets and customer segments for these by-products.
- 24th June 2025: The second meeting refined the focus on enzyme applications, pricing strategies, and competitive positioning. Key targets included companies already purchasing enzymes.
- After this second meeting, the final report was fine-tuned and delivered. The final market analysis highlighted the system's potential in feed, food, biofuel, cosmetics, and wastewater treatment sectors. The enzymes produced offer eco-friendly alternatives to chemical treatments and align with EU sustainability goals.

Case 43 is a Spanish initiative focused on bioconstruction. The team aims to professionalise and expand a new business line offering consultancy services to architects, developers, and builders. INNV supported the initiative with market analysis. INNV also performed the Business model design and optimisation (see section 3.1.5).

- 5th December 2024: This first meeting was common to the one already explained in case 43 (section 3.1.5).
- 17th December 2024: Potential companies and stakeholders have been identified to create a client network around the initiative's area, based on the previously identified professional target groups (architects, developers, builders). Due to staff travel restrictions, the geographic scope has been limited to close regions in Spain.
- 13th February 2025: A final report with a total of 63 contacts of potential interest has been identified and compiled in an appendix document. The document includes categories, regions, web addresses, email addresses, and contact telephone numbers.

Case 47 is an innovative start-up based in Denmark with the goal of exploring the potential of Miscanthus fibres, mostly as growing media. The market analysis was provided by Q-PLAN. They received the service Matchmaking by FBCD (see section 3.1.9)

- 5th February 2025: The first online meeting for the Market Analysis service took place on February 5th, 2025, aiming to collect valuable in-person information about the start-up and its current needs and challenges. Based on the information collected, a preliminary market analysis was conducted and enriched through an extensive desktop research, focusing mainly on the market structure, the market conduct and the market performance of the analysed market.
- 21st March 2025: The next step of the process included a brief presentation of the market analysis during a dedicated second meeting, to identify gaps and challenges for improvement. Based on the feedback received and the additional information gathered, the last step was the finalisation of the Market Analysis and its delivery.

- 31st March 2025: The market analysis aims to explore all dynamics of the market and provide a thorough analysis of the most important aspects of using Miscanthus fibres as a growing medium. Finally, a detailed SWOT analysis is performed. As a conclusion, Miscanthus fibres present a strong market opportunity as a sustainable alternative to peat in greenhouse media. Engaging stakeholders and optimising fibre processing are key to boosting market presence. Standardisation, supply scalability, and a clear value proposition are necessary for success, as well as rapid market entry, to take advantage of favourable sustainability regulations.

3.1.7 *Business mentoring (INNV, Q-PLAN, PROC)*

Case 37 corresponds to a Bulgarian organic herb farm producing organic products. Q-PLAN provided the Business mentoring, which ended being focused in designing and optimising a business model.

- 15th January 2025: During the first meeting, the organic farm owners expressed interest in diversifying their income streams and expanding their product range to include biodiverse cut flowers and small-scale beekeeping. The farm highlighted challenges in accessing funding, particularly from EU programmes, and emphasised its reliance on direct client communication for sales. Key aspects discussed included the farm's value proposition, current operations, market limitations, and aspirations to scale up and reach broader EU markets. Q-PLAN agreed to draft an initial business model Canvas and value proposition.
- 16th June 2025: In the second meeting, Q-PLAN presented a draft version of the business model. Feedback from the farm led to several refinements, including the addition of beehive products, new customer segments for both cut flowers and honey, and suggestions for enhancing customer education and storytelling. The environmental and social layers of the Triple Layered Business Model Canvas (TLBMC) were also introduced to reflect the farm's broader impact.
- 27th June 2025: The final version of the TLBMC was delivered. It included a detailed analysis across economic, environmental, and social dimensions. The report highlighted partnerships with local florists and designers, its commitment to regenerative agriculture, and its focus on community empowerment through workshops and educational activities. The value proposition was refined to emphasise handcrafted, zero-waste products, ecological integrity, and cultural storytelling. The report also included a comprehensive Value Proposition Canvas tailored to various customer segments.

The final document positions this Bulgarian organic farm as a regenerative, small-scale enterprise that blends artisanal production with ecological restoration and social engagement. It offers strategic insights to guide future growth while remaining aligned with the farm's core values of sustainability, authenticity, and community connection.

Case 40 is a Spanish agroecology project which pulls for sustainable agriculture production through their 3 production areas: vegetables, fruits and chickens. The initiative wants to find tools

to simplify the online selling and accountancy management. INNV support this case through a Business mentoring service.

- 21st November 2024: In the first meeting, the initiative was presented, and the extent of the service was narrowed to their needs. They are building a multipurpose warehouse powered by PV panels, to professionalise their activity. Their approach with their wastes is circular, using them for different purposes in their own facilities. Their pressing issue is to create a website to manage their stock and the selling of products and manage visits to their facilities. They also want models to analyse their returns, identify their most profitable products and optimise the resources distribution. They also stressed out the necessity to improve their position in social media.
- 4th December 2024: After a search for online tools to manage selling of products at small scale and preparing Excel spreadsheets to manage their stock and accountancy, the first results were presented. Regarding the digital tools, Crowdfarming, "La Colmena que dice Sí", Consentio, Locally.farm, and Regioneo were presented. They selected the Regioneo option, which is being developed within the frame of the European project SISTERS. Regarding the tools to manage reservations, Google Calendar, Calendly, Setmore, SimplyBook and Bookitit were presented. For the integral management of the initiative, Agroptima was presented. The Excel templates were delivered.
- 24th January 2025: The final report was delivered including the previous information, and also advices to get funding for the digitalisation of agricultural initiatives in Spain. Also local networks were recommended to support learning, visibility and access to funding. They were introduced to the Regioneo app developers to continue their profile creation to sell their products locally.

3.1.8 *Guidance in accessing funding (INNV, Q-PLAN, PROC, KAM)*

Case 53 corresponds to a Experimental Station in Poland, which is planning to install a small-scale agricultural biogas plant to manage the manure. IUNG provided guidance in accessing funding, focusing on national and EU-level opportunities to support the investment. Case 53 also received Matchmaking by IUNG (see section 3.1.9).

- October 2024: The service was started with a telephone contact to meet the needs of the company, and the possible service was discussed and agreed upon. The data on farm work was collected. The main physical product will be a fully functional agricultural biogas plant equipped with fermentation installations, a cogeneration system, substrate and digestate storage systems, as well as a modern process control system. In addition to electricity and heat, the product will also be digestate, which will be used for research on its fertilizing value.
- 29th March 2025: In the second meeting the IUNG team presented several options of several programs available in Poland to finance investments in agricultural biogas plants and performed barrier analysis.
- 20th May 2025: IUNG team presented a final list of 6 potential funding instruments as well as recommendations for further work. A staged model was proposed, by starting with a

small pilot installation and using it for demonstration and educational purposes and applying for further financing based on the results of the operation

3.1.9 *Matchmaking (KAMs, INNV, PROC)*

Case 42 is the Spanish slaughterhouse (cooperative) which asked for matchmaking with relevant stakeholders after the service technology scouting by WR (see section 3.1.1). Matchmaking service was provided by INNV.

- 23rd May 2025: As INNV was participant in the service of Technology scouting, helping with the translation during the meeting, the applicant and INNV already know each other and the outcome of the technology scouting service. That helped to reduce the number of meetings to two. In this first meeting, INNV presented relevant stakeholders for each of the 6 feedstock-technology-product combinations for the category 3 waste streams.
- 11th June 2025: The second meeting revolved around the ecocertification options for soap products to use in cosmetics and the administrative processes to certify different products such as soap, feed, glues and leather.

Case 47 is an innovative start-up based in Denmark with a vision to explore the potential of Miscanthus fibres, primarily as a growing medium, in alignment with the principles of sustainable agriculture and circular economy. They are seeking to establish a cooperative model that encourages collaboration among stakeholders in the value chain, They received the service Matchmaking provided by FBCD. They also received Market analysis (see section 3.1.6) by Q-PLAN.

- 30th January 2025: The start-up wishes to gain new knowledge about experiences with growing and handling Miscanthus. Focus areas include best practices, logistics, compost composition, as well as insights and market research from both industrial and private consumers. They also seek to investigate how the needs and interests of private gardeners, businesses, and greenhouses in using an alternative to peat moss can be mapped. The overall goal is to establish partnerships and collaborations with primary producers, established companies, advisory services, educational institutes and knowledge institutions to develop new products that can substitute the use of peat moss in compost.
- A series of online meetings and email exchanges took place over more than two months. Contacts were shared progressively based on the evolving needs. In the end, 5 stakeholders were shared in the final report to be directly contacted. This final report was delivered on the 1st of April 2025.

Case 48 corresponds to a Dutch waterboard, which aimed to identify potential buyers for the liquid CO_2 they produce through an innovative sludge treatment process. WR was in charge of providing matchmaking support to connect them with suitable local companies.

- 22nd February 2025: During the initial kick-off meeting, the project's objectives were discussed. The waterboard expressed interest in identifying companies that could use their liquid CO_2. Key topics included the annual production volume, potential sectors for CO_2 use, and expectations for the matchmaking process.
- 12th April 2025: A draft interview model was shared. Feedback was received and incorporated the same day, finalising the tool for identifying potential CO_2 users.
- 6th June 2025: Interview results were shared. Most of the twelve companies interviewed, including fish processors, dairy and meal manufacturers, reported minimal or no use of liquid CO_2. However, a promising lead emerged with a paprika greenhouse company, which expressed strong interest, and it was referred directly to the waterboard for follow-up.

Case 53 corresponds to an Experimental Station in Poland, which is planning to install a small-scale agricultural biogas plant to manage manure and slurry. IUNG provided Matchmaking support to identify potential technology providers and partners in the biogas sector. Case 53 also received Guidance in accessing funding by IUNG (see section 3.1.8).

- October 2024: The service was started with a telephone contact to meet the needs for matchmaking support and data on the station's agricultural operation. This case is too small to open a biogas plant on its own. Despite this, real opportunities for cooperation with the biogas sector were discussed, thanks to which it can gain specific benefits without having to build its own installation.
- 29th March 2025: In the second meeting, IUNG presented several companies from the Lublin region specialising in small agricultural biogas plants. The team also shared an analysis of the station's biomass potential.
- 20th May 2025: The third meeting focused on presenting four specific potential partners. The most available forms of cooperation are the sale or transfer of organic raw materials, the collection of digestate as fertiliser and the participation in local energy cooperatives or producer groups.

As mentioned before, three matchmaking services outside the Open Call applications and services requested were provided by MTU during this period. That led to the creation of three MAPs (Cases 38 and 39 of the Second Innovation Round, and Case 13 of the First Innovation Round).

3.1.10 *Other – Policy review (MTU)*

Case 54 is a Netherlands-based initiative (MAP) promoting decentralised, farmer-led composting using organic side streams. MTU provided policy review support to help clarify legal frameworks and identify enabling conditions for broader adoption.

- 5th February 2025: In the first meeting, the initiative's goals and regulatory challenges were discussed. The MAP collaborates with over 170 farmers to reduce municipal waste costs and regenerate soil through on-farm composting. Legal uncertainty in Dutch law regarding

on-site composting was identified as a major barrier. MTU agreed to begin drafting a comparative policy review, while the initiative committed to supplying documentation and contacts for regulatory analysis.

- 26th March 2025: The second meeting focused on reviewing the first draft of the policy review. MTU presented a comparative analysis of composting and anaerobic digestion (AD) policies across seven EU countries. No external contacts were identified at that point. MTU agreed to restructure the document into a side-by-side comparison format and include an Irish case study for contextual contrast.
- 2nd May 2025: Ahead of the third meeting, MTU submitted the updated policy review. The revised document includes a comparative table summarising composting and AD regulations in the Netherlands, Ireland, Germany, Austria, France, Belgium, and Italy. It highlights legal definitions of waste, end-of-waste criteria, on-farm composting permissions, and certification systems. The Irish case provides a national benchmark for Dutch policy reform. The 77-page document is designed to support identifying policy pathways and EU best practices.

3.2 Aftermath of the services provision and lessons learnt

According to the Description of Action included in the Grant Agreement, the number of support services to be delivered is set to more than 50 for the two innovation rounds. With the completion of **58 services among 44 cases** in both rounds, it can be stated that the goal was achieved.

The number of Multi-Actor Partnerships (MAPs) is counted after the following conditions: they were already a MAP applying to the Open Call (including cooperatives), they received the matchmaking service, they participated in any of the MainstreamBIO's events to make networking, or they were connected to another case or company thanks to the synergic vision of any of the MainstreamBIO's partners.

Regarding the matchmaking service, it is considered, according to the reports received, that once the service was provided, a number of interesting partnerships were found and, in some cases, even started their contact to start the collaboration. It is also worth mentioning that there were MAPs generated through matches envisioned by the partners, even when they were not inside an "official" matchmaking service asked by the applicant, thanks to their overall vision of the other MIP cases or their knowledge of their own network.

Table 9. Number of cases, services and MAPs per MIP country origin.

		Cases	Services	MAPs
MIP of the Case	BG	7 cases (6 in First Round and 1 in Second Round)	9 services (8 in First Round and 1 in Second Round)	3 MAPs: - 2 MAPs applied - 1 MAP created through matchmaking
	IE	6 cases (4 in First Round and 2 in Second Round)	8 services (4 in First Round and 4 in Second Round)	5 MAPs: - 2 MAPs applied

				- 3 MAPs created through matchmaking
	DK	5 cases (2 in First Round and 3 in Second Round)	7 services (3 in First Round and 4 in Second Round)	4 MAPs: - 1 MAP applied - 3 MAP was created through matchmaking
	NL	5 cases (2 in First Round and 3 in Second Round)	7 services (4 in First Round and 3 in Second Round)	5 MAPs: - 3 MAPs applied - 2 through matchmaking
	SE	8 cases (5 in First Round and 3 in Second Round)	9 services (6 in First Round and 3 in Second Round)	7 MAPs: - 6 MAPs applied - 1 through matchmaking
	ES	6 cases (2 in First Round and 4 in Second Round)	9 services (3 in First Round and 6 in Second Round)	3 MAPs: - 2 MAPs applied - 1 created through network event
	PL	7 cases (6 in First Round and 1 in Second Round)	9 services (7 in First Round and 2 in Second Round)	6 MAPs: - 2 MAPs applied - 4 created through matchmaking
Total		**44 cases**	**58 services**	**33 MAPs**

3.2.1 *After the service provision*

The consortium partners rapidly realised that to count **Multi-Actor Partnerships (MAPs)** will not be as much as straightforward as thought, because the MAP could be created right from the Open Call application, but could also be created during the service provision (especially in the matchmaking service), and also during the different MainstreamBIO events were the innovators, linked to the cases, were invited. These considerations led to a discussion on how to effectively count this KPI.

According to the GA, the number of MAPs supported for the two innovation rounds is set in KPI-1 to 35 (5 per MIP). 19 MAPs which applied to the Open Calls were selected to participate in the Innovation Rounds.

However, additional MAPs have resulted from the provision of the services. Accordingly, the definition of MAP to be supported in the project was discussed during the General Assembly held in Viborg, Denmark (M22) and during the online meetings at the project and WP3 level, and reviewed as follows:

“A Multi-Actor Partnership (MAP) is any association composed of **more than one entity** that has **participated in or has been created** through MainstreamBIO. These MAPs can be established by,

or created during the project (during and after the services and the events), through the following options:

- Supported cooperatives.
- Supported cases where more than one entity had already applied in the Open call, being involved in the service provision through their participation in meetings or activities.
- Supported cases that met an interesting entity to cooperate through MainstreamBIO support services, networking events or workshops.
- Partnerships between Open Call applicants and consortium organisations should not count as MAPs."

With this clear definition, MAPs can apply to the Open Call as such, or they can be built during the service provision or even after, during the events organised within WP3 and WP4.

For that reason, **the number of MAPs supported in the project can be estimated as 33**, but they may still change during the following months if new connections are made thanks to the provided services.

The number of MAPs which received services, as well as the individual cases receiving the Matchmaking service and turning into a MAP or individual cases finding potential contacts through MainstreamBIO's networking activities, 33 in the end, are included in Table 9.

Regarding the innovators reached through the services provided (KPI-2 "Innovators supported to deploy and/or scale up small-scale bio-based solutions), 175 to 210 innovators were set to be reached, assuming that each multi-actor partnership supported will typically include innovation teams comprised of 5 – 6 stakeholders on average (farmers, technology providers, advisors, local authorities, etc.). In the end, **378 innovators were supported through the two Innovation Rounds** (163 in the First Round and 215 in the Second Round), according to the concepts of individual applicant and MAPs described above.

3.2.2 *Lessons learnt*

A clear trend emerged across the Open Calls and Innovation Rounds: **business services were significantly more in demand**, accounting for approximately two-thirds of all service requests, while technical services made up just over one-third. The most frequently requested services were:

- ✓ **Matchmaking**
- ✓ **Market analysis**
- ✓ **Guidance in accessing funding**

All three fall under the business services category. The most requested technical service was **Scale-up advisory**, ranking fourth overall.

An important insight, not initially identified during co-creation workshops, was the spontaneous demand for **Policy review and legal advisory services**. Innovators in rural areas often face complex legal frameworks involving national and EU legislation, licences, registrations, and permits. These legal hurdles can be a major barrier to growth, scale-up and/or expansion to other countries with specific legislation. Providing support in this area can save time and resources, helping businesses better understand and navigate their regulatory environment.

While applicants indicated preferences for certain services, **final delivery was influenced by multiple factors**, including priority rankings.

For example, Guidance in accessing funding was selected eight times in the Second Open Call, but only once as a first choice. After considering all factors, including the availability of partners, and the language of the service provider in case there is an actual language barrier to provide the service, this service was ultimately provided only once during this round.

The initiative attracted strong interest from companies, associations, and institutions, all eager to benefit from the support services offered by MainstreamBIO. Feedback was overwhelmingly positive, with many stakeholders encouraging the continuation of these services. They recognised the value in helping small businesses and start-ups:

- ✓ To develop and scale their operations.
- ✓ To improve internal management.
- ✓ To connect with key stakeholders and networks.

Nevertheless, the limited time of the project (36 months) made it difficult to evaluate in the medium to long term the impact of the services on each of the companies, organisations, or cooperatives receiving the support. Also, the results of the services in some cases are still developing, as some services require a long action, for instance, contacting new partners or putting into practice the recommendations coming from the scale-up advisory, nutrient management fertilisation or the business model design and optimisation. Thanks to the follow-up of the services made by the partners, and the feedback received through surveys by the service receivers, Deliverable 4.6 “Report on evaluation of MIP performance - second round”, delves deeper into the conclusions after the provision of the Second Innovation Round.

4. Capacity-building workshops

The MainstreamBIO project is dedicated to advancing the adoption and dissemination of small-scale bio-based solutions across rural Europe. Central to this mission is **the development and deployment of a digital toolkit** designed to align bio-based technologies, social innovations, and sustainable nutrient recycling practices with existing biomass and market trends.

The digital toolkit is a comprehensive resource intended to support rural actors in understanding, engaging with, and implementing bio-based solutions tailored to their local contexts and needs. This toolkit also aims to enhance comprehension of the bioeconomy through educational resources, building on existing research findings and tools. However, it is also crucial to **train the targeted stakeholders through capacity-building workshops** to ensure they not only become aware of the toolkit but are also able to use it to its full potential.

The workshops of Task 3.2 were organised by DRAXIS and supported by all partners. Each MIP delivered their capacity-building workshop during the timeframe of M17-M24. Deliverable 3.1, submitted in M24, provided an in-depth analysis of the organisation and results of the capacity-building workshops. To read an in-depth report on the digital toolkit, including the components, “D2.5. MainstreamBIO digital toolkit - initial version” was also submitted in M18.

The feedback obtained in the sessions was analysed and implemented in the toolkit. The key improvements and updates, thanks to the feedback received, are what we will develop in the following subsections. To find out about all the changes and new versions of the toolkit, another deliverable is submitted at the end of the project (M36): D2.7 “MainstreamBIO digital toolkit - final version”.

Figure 8. Composition of some of the different regional CCWs.

4.1 Workshop impact and Toolkit engagement

The capacity-building workshops have exceeded expectations across the seven MIP regions. These interactive sessions brought together 145 participants from diverse professional and cultural backgrounds, fostering a dynamic exchange of ideas and perspectives.

One of the most tangible outcomes was the increase in toolkit engagement. Participants actively explored the platform during the sessions, leading to a surge in new account registrations and sustained interaction afterwards. This demonstrated the toolkit's growing relevance as a key resource for supporting sustainable bioeconomy initiatives.

Workshops were conducted in Bulgaria, Denmark, Ireland, the Netherlands, Poland, Spain, and Sweden, following DRAXIS's initial session with all project partners. To ensure consistency and effectiveness, detailed instructions and a structured presentation were provided to all MIP leaders.

To capture user insights, MainstreamBIO employed a dual approach:

- In-person observations and direct partner feedback during the workshops.
- A structured survey conducted by DRAXIS, assessing various toolkit aspects, including:
    - User-friendliness and ease of navigation.
    - Content quality and relevance to stakeholders' needs.
    - Accessibility and inclusivity of presented information.
    - Overall usefulness and alignment with the real-world challenges of the bioeconomy sector.

This extensive feedback provided valuable insights, which have directly informed key improvements to the MainstreamBIO Digital Toolkit to better serve its growing audience.

4.2 User feedback and key improvements

A lot of positive feedback was received from the workshop participants, where the strengths of the toolkit were recognised. The users pointed out the following:

- **Intuitive design:** The website's interface was highlighted for its user-friendly layout, which simplifies navigation and enhances the overall experience. Participants appreciated the design elements, such as the clear instructions, guiding messages, and alerts, which streamline usability.
- **Rich and useful content:** The Catalogue of Small-Scale Bio-Based Solutions and Nutrient Recycling Practices were recognised as a key resource, providing practical, well-organised, and insightful information that can be applied directly to bioeconomy initiatives.
- **Effective Learning Resources**: The instructional videos received special mention for their clarity, helping users understand how to utilise the toolkit efficiently and guiding them through its functionalities.

Partners worked diligently to enhance every aspect of the toolkit, drawing inspiration from user and partner feedback, as well as best practices like Nielsen's 10 Usability Heuristics. Key updates include:

- **Visual and Structural Enhancements:** Revamped design with new buttons, headers, colours, and icons, improving navigation and making the interface more intuitive and visually appealing.
- **Improved Content Organisation:** Significant efforts were made to restructure how content is displayed, ensuring clarity and accessibility across all toolkit sections.
- **Accessibility:** Introduction of a plug-in called UserWay, an industry-standard tool for website accessibility. This addition enhances our platform's inclusivity by making it more accessible to users with disabilities, ensuring compliance with global accessibility standards such as WCAG. By implementing UserWay, the toolkit broadens its reach, improving user experience, and fostering a more inclusive digital environment for all.

4.3 Areas for enhancement and actions taken

At the same time, users highlighted several areas where the first version of the toolkit fell short. One of the most significant issues was the language barrier, as only certain sections of the website were translated, while key content, such as the Catalogue and other essential toolkit materials, remained unavailable in multiple languages.

Other concerns included responsiveness, with users experiencing difficulties accessing and navigating the toolkit on different devices, as well as navigation challenges, which made it harder to find relevant information efficiently. Additionally, the Decision Support System needed further refinement to better assist users in making informed choices. Based on this valuable feedback, involved partners identified the most critical areas for improvement and implemented targeted solutions to enhance the toolkit's accessibility, usability, and overall effectiveness.

- **Multilingual Accessibility:** Users highlighted the need for full translation across all content to cater to non-English speakers. This has been addressed by integrating a Google translation plugin, enabling the toolkit to support 27 EU languages. This ensures inclusivity and accessibility for users from diverse linguistic backgrounds.
- **Simplified Visuals & Navigation:** The toolkit's primary audience, many of whom are non-technical users, required a more straightforward design. Inconsistencies were addressed across buttons, layouts, and pathways, ensuring a streamlined and cohesive experience.
- **Data-Driven Insights:** Identification of pages with the lowest engagement time and streamlined their design and content to enhance clarity and accessibility. By restructuring the information and prioritizing key insights, users can now quickly access the most important details, making it easier to understand the tangible benefits of adopting innovative technologies.
- **Decision Support System (DSS):** To address critiques about complexity, the DSS was redesigned into a simplified five-step guided process. This new workflow improves clarity, simplifies user input, and includes additional contextual information about its four core pillars: environmental impact, scalability, cost-efficiency, and adaptability. DSS was tested with case 42.
- **BioForum Engagement:** Due to low engagement in the BioForum and the absence of strong community dynamics, all relevant partners with a bioeconomy background were encouraged to actively contribute by making posts and initiating discussions alongside their MIPs. This

approach aims to create a more welcoming and interactive environment, helping to break the ice for new users and encouraging them to participate in meaningful conversations.

4.4 Strategic updates and innovations

User feedback from the capacity-building workshops played a crucial role in refining and enhancing the digital toolkit. These insights led to significant updates across multiple areas, improving usability, accessibility, and engagement.

1. Design Overhaul

- Introduced a modern, darker green colour scheme to enhance visual contrast, improve readability, and create distinct content sections.
- Optimised the platform for seamless performance across all devices, ensuring a smooth user experience on desktops, tablets, and mobile phones.
- Implemented navigation tools, such as a “Back” button for easier movement between sections, while removing redundant elements for a cleaner, more intuitive interface.

2. Decision Support System Enhancements

- Expanded user guidance with clear, step-by-step instructions to simplify the decision-making process.
- Increased space for contextual information, making it easier for users to understand the system’s features, benefits, and applications.
- Enhanced the overall user flow to make interactions more intuitive and outcomes more actionable.
- Expanded the depth of arguments and supporting information, ensuring users have all the necessary insights to make well-informed decisions.

3. Gamification Elements

- Integrated progress-tracking features, including completion metrics, to encourage engagement with all toolkit sections.
- Developed a personalized user dashboard, allowing participants to monitor their progress in the toolkit.

4. Content & Technical Refinements

- Updated the Tool Library by removing outdated resources and incorporating new, high-quality tools that align with evolving industry needs.
- Improved the registration process, addressing latency issues and making account creation faster and more seamless.
- Strengthened multilingual support, ensuring all toolkit content—including critical resources like the Catalogue—is fully translated and accessible to a diverse audience.
- Enhanced search functionality, allowing users to quickly find relevant materials based on keywords, categories, and specific use cases.

These improvements mark a significant step toward making the MainstreamBIO Digital Toolkit a more dynamic, user-friendly, and impactful resource. By incorporating these changes in the second

version of the toolkit, MainstreamBIO aimed to provide stakeholders with the tools they need to effectively implement sustainable bioeconomy solutions while fostering long-term engagement with the platform.

4.5 Wrap-up and conclusion

The capacity-building workshops have been instrumental in refining the MainstreamBIO Digital Toolkit, ensuring it effectively meets the needs of stakeholders in the bioeconomy sector. The feedback collected from participants has driven targeted improvements, making the toolkit more accessible, user-friendly, and aligned with real-world applications.

Through this process, the MainstreamBIO Digital Toolkit has not only improved in functionality but has also been fine-tuned to serve the right audience-stakeholders who are actively working to advance bioeconomy initiatives. The workshops have played a crucial role in ensuring that the toolkit remains a relevant and valuable asset in supporting the transition toward sustainable, circular bio-based systems.

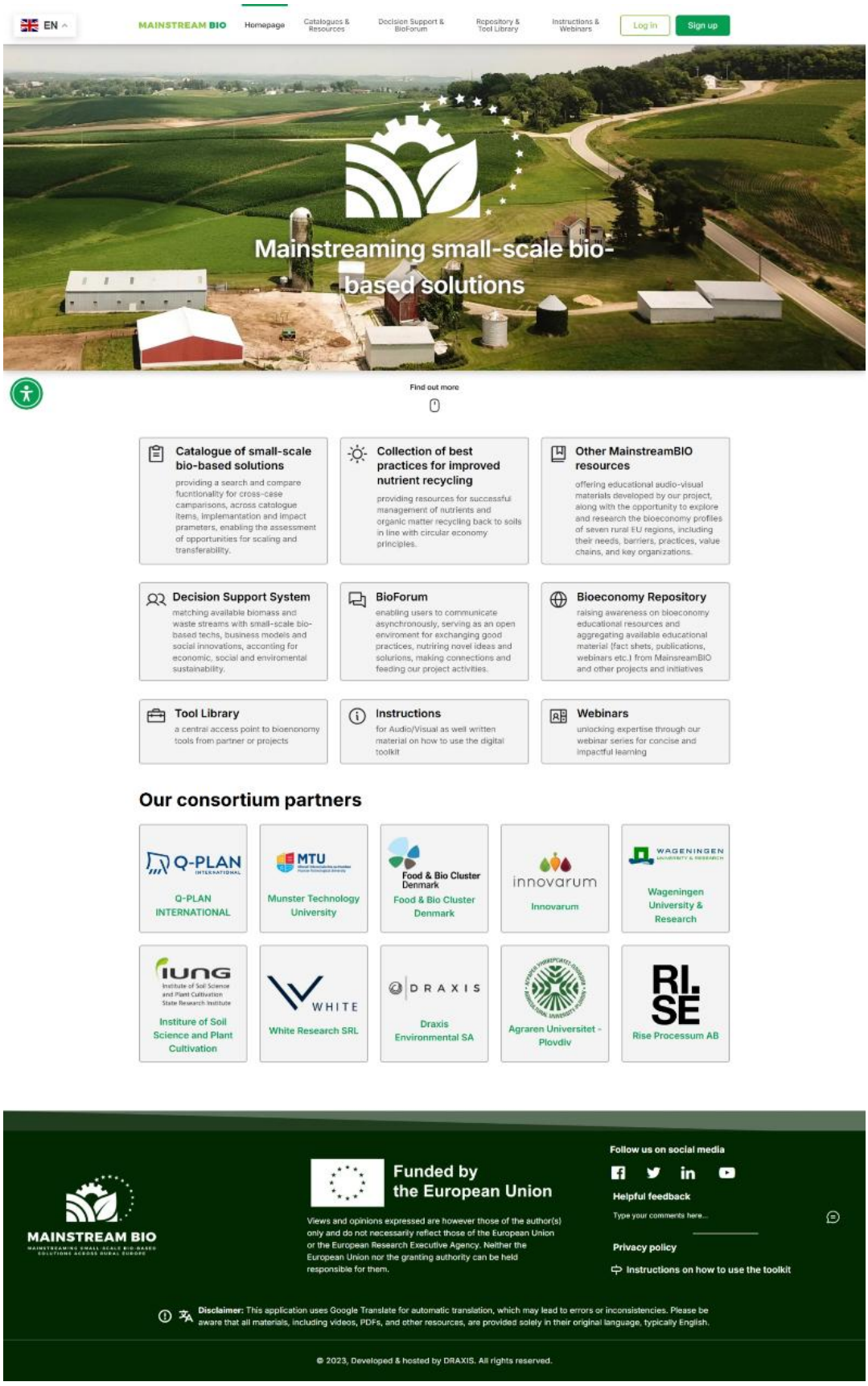


Figure 9. Home page of the MainstreamBIO Digital Toolkit.

5. Networking events

This report provides a summary of activities and achievements obtained from the two rounds of networking events and demo days conducted by M24 and M36, respectively.

Aligned with the broader objectives of MainstreamBIO and supporting the overall mission of the project, the networking events and demo days organised under Task 3.4 contribute significantly to achieving the expected outcome outlined in the Grant Agreement: "*Successfully organise a series of networking and demonstration events to catalyse connections*."

Networking plays a crucial role in ensuring that innovators:

- Gain access to customised support throughout the entire life cycle of bio-based projects, helping to guide and accelerate the commercialisation of their solutions, products, and services.
- Receive valuable market insights that enhance the marketability of their contributions.
- Facilitate the integration of small-scale bio-based solutions into mainstream practice across rural Europe, thereby expanding opportunities for a diverse range of rural stakeholders to engage in and drive the development of the bioeconomy.
- Develop the necessary skills and partnerships to implement their business models and create demand-driven bio-based value chains.

5.1 Methodology and guidelines

According to the GA, two x seven networking events (one per round, by M24 and M36 respectively) and seven demo days (by M36 combined with networking events) needed to be organised in Task 3.4 by each of the MIPs in the Netherlands (WR), Poland (IUNG), Denmark (FBCD), Sweden (PROC), Bulgaria (AUP), Spain (INNV) and Ireland (MTU) 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. To ensure efficiency, the consortium sought to partner with agricultural or other business events that were organised in the focal regions.

The main goal and objectives of the network events and demo day are to facilitate connections between our supported multi-actor partnerships and suitable partners (customers, consumers, tech providers or investors), to inspire further actors to get engaged in and support the bioeconomy as well as to showcase the deployment of solutions.

Task 3.4 is led by FBCD, supported by all partners, and runs from M22 (June 2024) until M36 (August 2025). As the leader of Task 3.4, FBCD is responsible for developing guidelines that facilitate the implementation and conduction of the network events and demo days by the partners who are actively running the Multi-actor Innovation Platforms (MIPs). These guidelines served as a framework for effective organisation of the regional network events, ensuring that collective knowledge and expertise were fully utilised. After the completion of each network event in M24 and M36, the organising partners were required to fill in a reporting template and share it with FBCD.

For the implementation of the networking events by MIP leaders, a guideline was developed by FBCD and distributed to MIP leaders before round 1 and round 2 (see Annex V), respectively, with specific individual deadlines. The guideline included information about the objectives of the network

event, format of the event and demo day, duration and reporting, definition of the participants and the invitation process. A checklist for planning and organising the events, as well as a package of supporting material, was developed and adjusted to each round.

Demo days were free to organise in both rounds 1 or 2. As stated in the GA, the consortium sought to partner with agricultural or other business events organised in our focal regions to optimise the organisation and recruitment of participants to facilitate connections between our supported multi-actor partnerships and suitable partners (customers, consumers, tech providers or investors).

5.2 Implementation of events

5.2.1 *Round 1*

The first round of network events was conducted and reported with a small delay, which was approved by the consortium and the Project Officer. Four out of seven network events were completed and reported by M24 and included in D3.1. Due to organisational challenges and other activities, the remaining three events were completed and reported by M27. The seven events were conducted from June to November 2024, i.e. M21-27 of the project. Table 10 summarises the date, venue and number of participants.

Table 10. Date of the conducted networking events in round 1.

MIP	Date networking event round 1	Type	Venue	Number of participants
AUP	28th August 2024	Network and workshop	Opora Zaden Ltd, industrial campus in the village of Tsalapitsa, Plovdiv district, Bulgaria	12
FBCD	23rd August 2024	Network and workshop	Agro Business Park, Tjele, Denmark	16
MTU	28th June 2024	Network and talks	Hotel, Curraheen, Horse and Jockey, Co. Tipperary, E41 AP86, Ireland	20
WR	30th May 2024	Network and talks	Edelhertweg 1, Lelystad, The Netherlands	50
IUNG	29th November 2024	Network and workshop	Pensjonat i restauracja "Rozzanna", 3 Maja 1, str. Wąwolnica, Poland	30
INNV	26th September 2024	Network and demo day	Ganadería Unida Comarcal GUCO, Valderrobres, Spain	14
PROC	17-18th September 2024	Network and demo day	Clarion Hotel Umeå, Sweden	35
Total				**177**

5.2.2 *Round 1 result and takeaways*

In line with MainstreamBIO's mission to showcase the deployment of bio-based solutions and facilitate connections between multi-actor partnerships and relevant stakeholders (e.g., customers, consumers, tech providers, investors), the first round of regional networking events was embedded

within existing agricultural and business contexts. The events aimed to inspire new actors to engage and foster a supportive ecosystem for the rural bioeconomy.

There was strong engagement with local and regional stakeholders across all events. In Ireland (MTU), participants, particularly from smaller businesses, showed a keen interest in learning how they could become involved in the project. To foster continued collaboration, email networks were initiated among attendees. In Spain (INNV), the event facilitated effective networking with regional stakeholders connected to the LIFE CHANDELIER project, about agricultural residues to produce vehicular biomethane, clearly demonstrating a synergy between the deployment of bio-based circular solutions and stakeholder interest. In Denmark (FBCD), the event enabled regional actors to collaboratively generate ideas addressing climate and environmental challenges, bridging the gap between policy (such as the upcoming CO_2 tax), practical action, and innovation.

In the Netherlands (WR), the event was hosted within the Future Farming & Food Experience, drawing significant attention, with 80–100 visitors engaging with the stand to learn about innovative uses of waste streams such as grass-to-paper and pumpkin beer. In Bulgaria (AUP), small-scale farmers expressed strong interest in best practices and innovations in local vegetable production, particularly those involving accessible, small-scale technologies. Finally, in Sweden (PROC), participants actively engaged with forestry-based bioeconomy solutions and entrepreneurial examples like Brännland Cider, highlighting the practical and regional potential of bio-based business models. In Poland (IUNG), agricultural entrepreneurs and innovators explored selective spraying technology for blackcurrant cultivation, which had been supported by MainstreamBIO with business model development. This drew high engagement and prompted matchmaking conversations focused on expanding the technology's scale and impact in fruit production and beyond.

The events provided concrete demonstrations of bio-based solution deployment across several regions. In Denmark, the presentation of HØSTTEK's innovative harvester for wetland biomass highlighted how small-scale technologies can directly contribute to achieving environmental and climate objectives in Denmark. In the Netherlands, live demonstrations and detailed explanations of projects such as grass valorisation and pumpkin beer effectively showcased the practical application of local biomaterials in innovative product development. Meanwhile, in Spain, Ganadería La Albarda presented a successful example of the matchmaking service received through MainstreamBIO, clearly illustrating the tangible impact of project support on real-world bioeconomy initiatives. Likewise, in Poland, the selective spraying solution developed by Ribes Technologies served as a concrete use case, underlining how EU-supported innovations, combined with tailored business support, can scale bio-based technologies and trigger collaboration within the agri-food sector.

The networking events successfully catalysed new partnerships and facilitated cross-regional learning. By aligning with broader initiatives, such as the LIFE CHANDELIER project in Spain and the SCALE-UP project in Sweden, the events significantly expanded both their reach and relevance, attracting a wider audience and encouraging deeper collaboration. In Ireland, follow-up actions, including surveys and email-based networking, proved effective in extending the event's impact and maintaining stakeholder engagement beyond the meeting itself. Furthermore, the events sparked new interest from potential partners, including policymakers and agricultural clusters in countries like the Netherlands, Spain and Poland, confirming the role of these gatherings as powerful catalysts for future bioeconomy collaborations.

The first round of networking events has clearly supported the deployment of local solutions, inspired new stakeholders, and catalysed connections vital to growing the bioeconomy in rural regions.

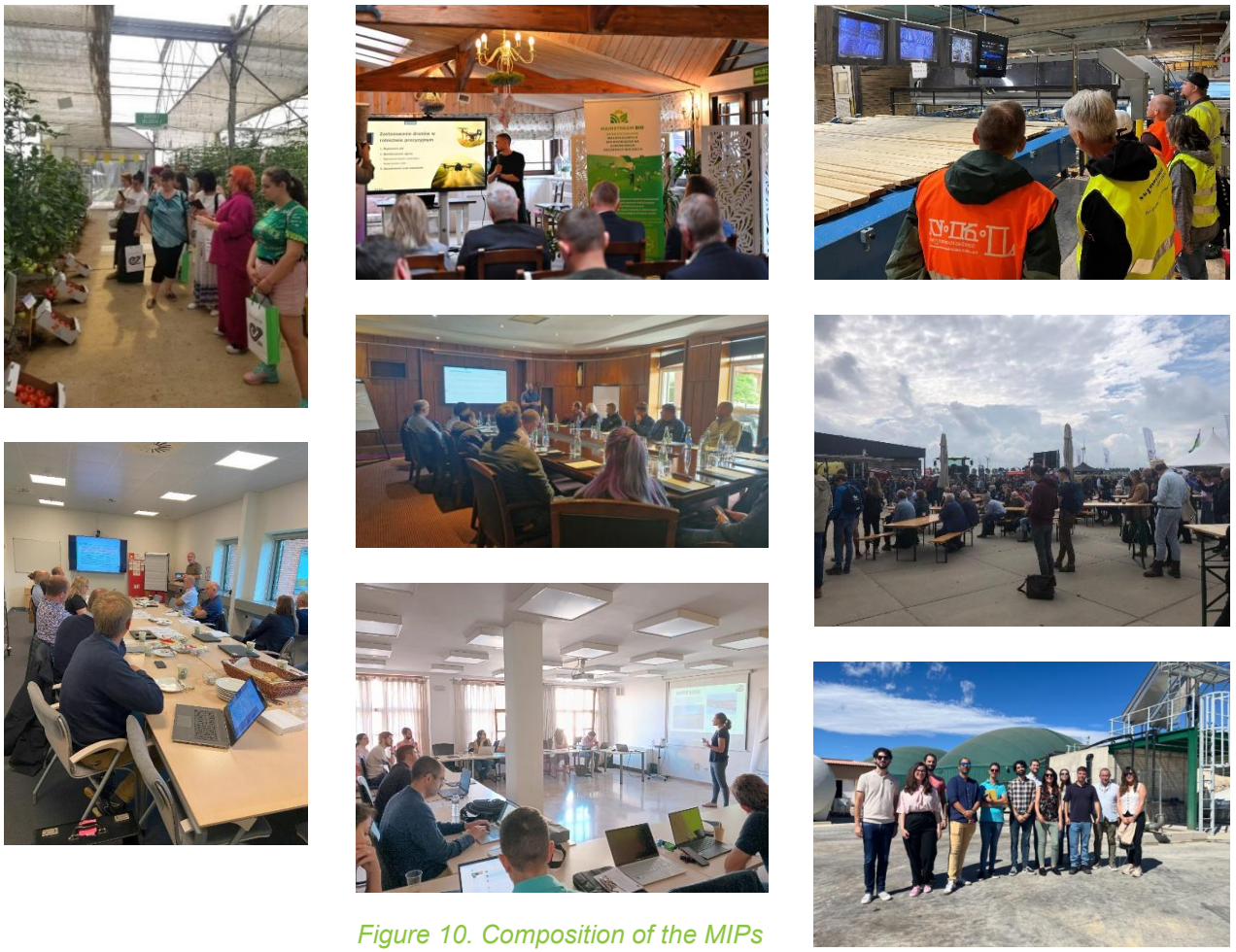


Figure 10. Composition of the MIPs Networking events.

5.2.3 *Round 2*

The second round of network events was conducted and reported from March to June 2025, i.e. during M31-34 of the project. Table 11 summarises the date, venue and number of participants.

Table 11. Date of the conducted networking events in round 2.

MIP	Date networking event round 2	Type	Venue	Number of participants
AUP	31st March-1st April 2025	Network and demo	Atmosphere hotel, Pavel Banya, Bulgaria	14
FBCD	14th March 2025	Network and demo	Sanderumgaard Sanderumgaardvej 150, 5220 Odense SØ, Denmark	41
MTU	10th April 2025	Network and demo	Teagasc Moorepark, Ireland	24
WR	4th June 2025	Network and demo	ACRRES, Proefstation, Lelystad, The Netherlands	50

IUNG	12th April 2025	Network and demo	Agricultural Experimental Station Kępa, Pulawy, Poland	32
INNV	7th May 2025	Network	Feria de Valladolid, Spain	18
PROC	20th May 2025	Network	Showroom in new pilot hall at RISE Processum, Örnsköldsvik, Sweden	10
Total				**189**

5.2.4 *Round 2 result and takeaways*

The second round of networking events across multiple European regions served as a dynamic platform to advance the deployment of bioeconomy solutions and stimulate connections between multi-actor partnerships and a diverse array of stakeholders. These events were purposefully designed not only to disseminate technological and research advancements but also to foster enduring relationships with customers, consumers, technology providers, and investors. By integrating into existing business or agricultural events in each country, the MainstreamBIO consortium ensured optimal visibility, engagement, and operational efficiency.

In Ireland, the networking activities were integrated into a full-day event at Teagasc Moorepark, following a Cross Mutual Learning Workshop (CMLW). With 24 participants representing a mix of farmers, regional actors, and industry experts, the event highlighted cutting-edge research in dairy, food innovation, and climate-resilient agriculture. Presentations by leading scientists and a tour of advanced facilities allowed attendees to explore microbial solutions, dairy ingredient innovations, and the contributions of the Teagasc Climate Centre. The direct engagement with researchers and exposure to infrastructure facilitated meaningful connections and knowledge sharing. Despite some suggestions for improvement, such as more time for open discussion and practical networking tools, the event proved effective in forming new partnerships and inspiring interest in bioeconomy.

Figure 11. Pictures from the Irish Networking event (April 2025).

In Spain, Innovarum capitalised on the large-scale Expobiomasa fair to organise an interactive networking session. The format combined project presentations with structured B2B matchmaking and free networking. Participants, representing varied sectors from agriculture to technology and investment, were matched according to their registration profiles, resulting in focused and impactful conversations. Although some challenges arose due to no-shows, on-the-spot adjustments, and the strong facilitation by Innovarum ensured productive dialogues. The dynamic format and the personal engagement model received high praise, underscoring the importance of tailored networking to mobilise collaboration in the bioeconomy.

Figure 12. Pictures from the Spanish Networking event (May 2025).

Denmark's event, hosted by FBCD, centred on on-farm practices and the practical realities of sustainable agriculture. With keynote presentations and a field walk through success and failure cases, attendees, particularly agricultural students, were encouraged to be open-minded and experimental in future food production. The event concluded with a networking lunch and follow-up discussions focused on business models and soil health. Although the large group size posed some difficulties for networking depth, the experiential learning component successfully engaged participants and promoted bioeconomic innovation at the farm level.

Figure 13. Picture from the Danish Networking event (March 2025).

In the Netherlands, the event took place within a major agricultural fair, where two MainstreamBIO-led excursions allowed visitors to explore pilot installations such as digesters, algae production, and grass fibre processing. The presence of the project throughout the day, both through physical installations and guided tours, facilitated direct interaction with stakeholders and generated discussions around political, technological, and market barriers to innovation. The informal yet focused setting allowed for effective knowledge exchange and inspired several participants to engage further with biobased initiatives.

Figure 14. Pictures from the Dutch Networking event (June 2025).

Bulgaria's workshop, hosted by AUP, focused on the specific challenges and opportunities for precision agriculture in small-scale farming. Through interactive sessions, participants explored the role of digital tools, data-driven decisions, and circular bioeconomy practices. The discussions provided concrete policy and educational pathways to enhance adoption and underscored the importance of partnerships between farmers and tech providers. The use of real-life case studies and practical solutions encouraged peer learning and highlighted the transformative potential of bioeconomy strategies for small farms.

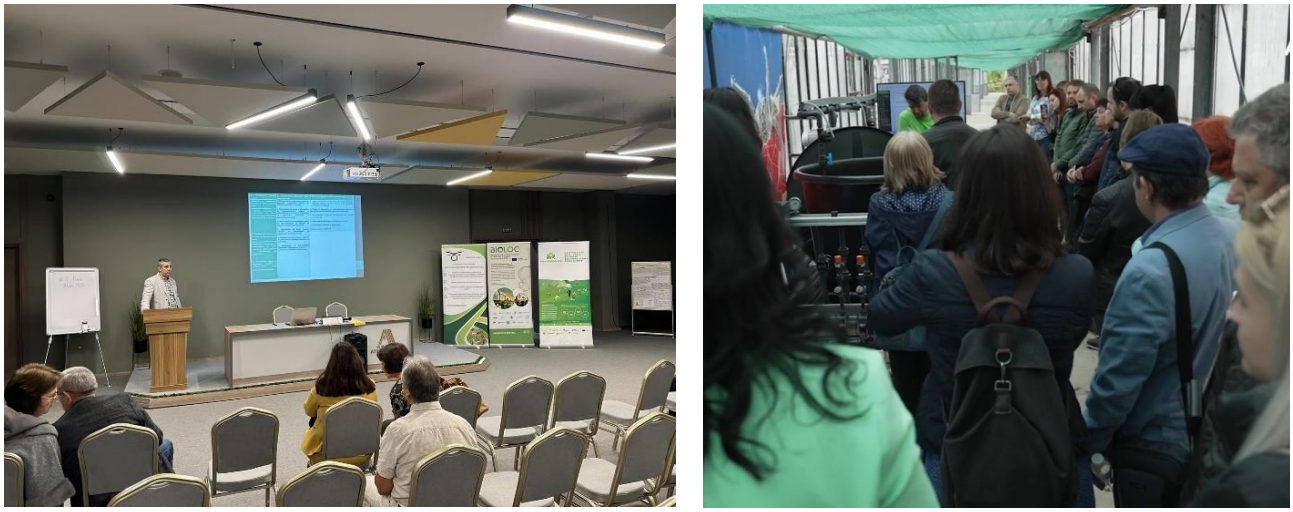


Figure 15. Pictures from the Bulgarian Networking event (March-April 2025).

In Sweden, PROC's "Fast Track Restströmmar" event brought together industry and academia to explore AI's potential in utilising industrial residual streams. The collaborative workshop helped demystify AI for traditional sectors and demonstrated its value as a catalyst for innovation. Participants left the session with newfound confidence in applying AI to rural bioeconomic challenges, exemplifying how digital solutions can bridge sectors and spark creative solutions.

Figure 16. Picture from the Swedish Networking event (May 2025).

Poland's event, organised by IUNG, revolved around hands-on discussions on bioeconomy solutions already being implemented or considered by farmers and business owners. The format enabled practical exchanges about overcoming barriers and optimising production processes. These bilateral conversations not only facilitated knowledge sharing but also led to the identification of new collaborative opportunities, such as a potential partnership between a fruit processor and an animal feed producer. Participants reported leaving the event with concrete inspiration and actionable ideas aligned with the region's bioeconomic priorities.

Figure 17. Picture from the Polish Networking event (April 2025).

Collectively, these regional events exemplified the project's ability to bridge scientific knowledge, practical solutions, and market needs. By embedding activities in local contexts and ensuring a balance between structured and open interactions, the network successfully catalysed new connections and inspired a wide range of actors to engage more deeply with the bioeconomy. As the project progresses, these events lay a strong foundation for scaling solutions and continue to build a vibrant ecosystem around sustainable biobased innovation.

The second round of networking events clearly showed the value of regional engagement in advancing bioeconomy solutions. By aligning with established local events and tailoring activities to regional needs, the consortium effectively connected multi-actor partnerships with key stakeholders, including farmers, researchers, businesses, and policymakers. These events not only showcased innovation but also encouraged collaboration and sparked wider interest in sustainable biobased development.

Though diverse in format, all events shared the goal of supporting the shift toward a circular bioeconomy. Strong participation, practical exchanges, and positive feedback confirm their role in building partnerships and momentum. The relationships and insights gained will help scale bioeconomy innovations and deepen stakeholder involvement across Europe.

5.3 Overall outcome of the networking events and demo days

The events that were organised during the two rounds during MainstreamBIO have successfully demonstrated how locally embedded, stakeholder-driven engagement can catalyse the deployment of bio-based solutions and accelerate the growth of the rural bioeconomy. By strategically aligning these events with established agricultural and business gatherings, the consortium ensured high visibility and participation while tailoring content to regional needs and strengths.

Across all participating countries, the events fostered meaningful connections between multi-actor partnerships and relevant stakeholders, including farmers, small businesses, researchers, technology providers, and policymakers. They provided concrete examples of innovation in action, from selective spraying in Poland to AI-enabled residual stream valorisation in Sweden, microbial dairy solutions in Ireland, and small-scale circular technologies in Bulgaria and Denmark.

The strong stakeholder engagement, interactive formats, and real-world case studies created a fertile ground for collaboration, peer learning, and long-term relationship building. Several events led to follow-up actions, matchmaking opportunities, and cross-regional connections with broader EU initiatives, further expanding their impact. Importantly, feedback from participants confirmed that these events filled a critical gap by making innovation accessible, actionable, and regionally relevant.

Together, both rounds of events have laid a robust foundation for scaling bioeconomy initiatives. They have proven that strategic regional engagement, when combined with practical demonstrations and inclusive dialogue, can inspire action, foster innovation, and build the networks needed to support a sustainable, circular, and inclusive bioeconomy across Europe and to start new collaborations to initiate more activities promoting bioeconomy and small-scale biobased solutions and project, which was the overall aim of these events organised under task 3.4.

6. Conclusions and next steps

Under Task 3.1, the first open call was successfully closed in M14 (October 2024) with a total of 36 applications requesting in total 102 services, and 32 cases enrolled in the process, which implied a total of 42 innovation support services initially registered to be provided under Task 3.3 (finally 35 were provided). Of those 102 services, the most demanded were Market research (around 17.5% in total), Matchmaking and Guidance for accessing funding (15% each). The documentation and guidelines to support the launch of the second open call were reviewed and delivered to the MIPs based on the lessons learnt from the first round.

The Second Open Call was launched in M23 (July 2024) and ended in M25 (September 2024). 59 services were requested in this second open call, from 19 different cases. In the end, 17 cases/MAPs were involved in the Second Innovation Round, with a total of 23 services provided. Regarding the applications to the Second Open Call, Matchmaking and Guidance on accessing funding were the top two (20% and 14% respectively), in this case, followed by Business mentoring (12%).

In total, in both Open Calls, **161 services were requested from 55 different applicants**. 64% of these services requested were business-oriented, while 36% were more technology-related.

Regarding Task 3.2, after the completion of the Capacity-building workshops, users have suggested several further improvements. One of the most significant impacts has been the refinement of content structure and navigation, allowing users to quickly find and apply relevant information. Enhancements such as expanded multilingual support, improved decision-support tools, and optimised platform accessibility have addressed key user concerns, ensuring a more seamless and inclusive experience.

Additionally, the workshops highlighted the importance of community engagement within the toolkit, leading to efforts to foster more interaction through features like BioForum discussions and resource-sharing opportunities. By focusing on the specific needs of its users, the toolkit has evolved into a more practical and effective resource for implementing sustainable bio-based solutions.

Under Task 3.3, the service provision for the Second Innovation Round was completed in **17 cases, delivering a final report for each of the 23 services**. The service provision lasted from M27 (November 2024) to M34 (June 2025). The 23 services were distributed as follows:

- **By service provider**: INNV (6), Q-PLAN (4), PROC (4), WR (4), IUNG (2), AUP (1), MTU (1) and FBCD (1).
- **By type of service**: technology scouting (3), scale-up advisory (2), techno-economic analysis (2), nutrient management and fertilization (1), business model design and optimization (4), market analysis (3), business mentoring (2), guidance in accessing funding (1), matchmaking (4), and policy review (1).

The MIP of origin of the 17 cases were meanwhile distributed as follows:

- Bulgaria (1), Ireland (2), The Netherlands (3), Poland (1), Spain (4), Denmark (3), and Sweden (3).

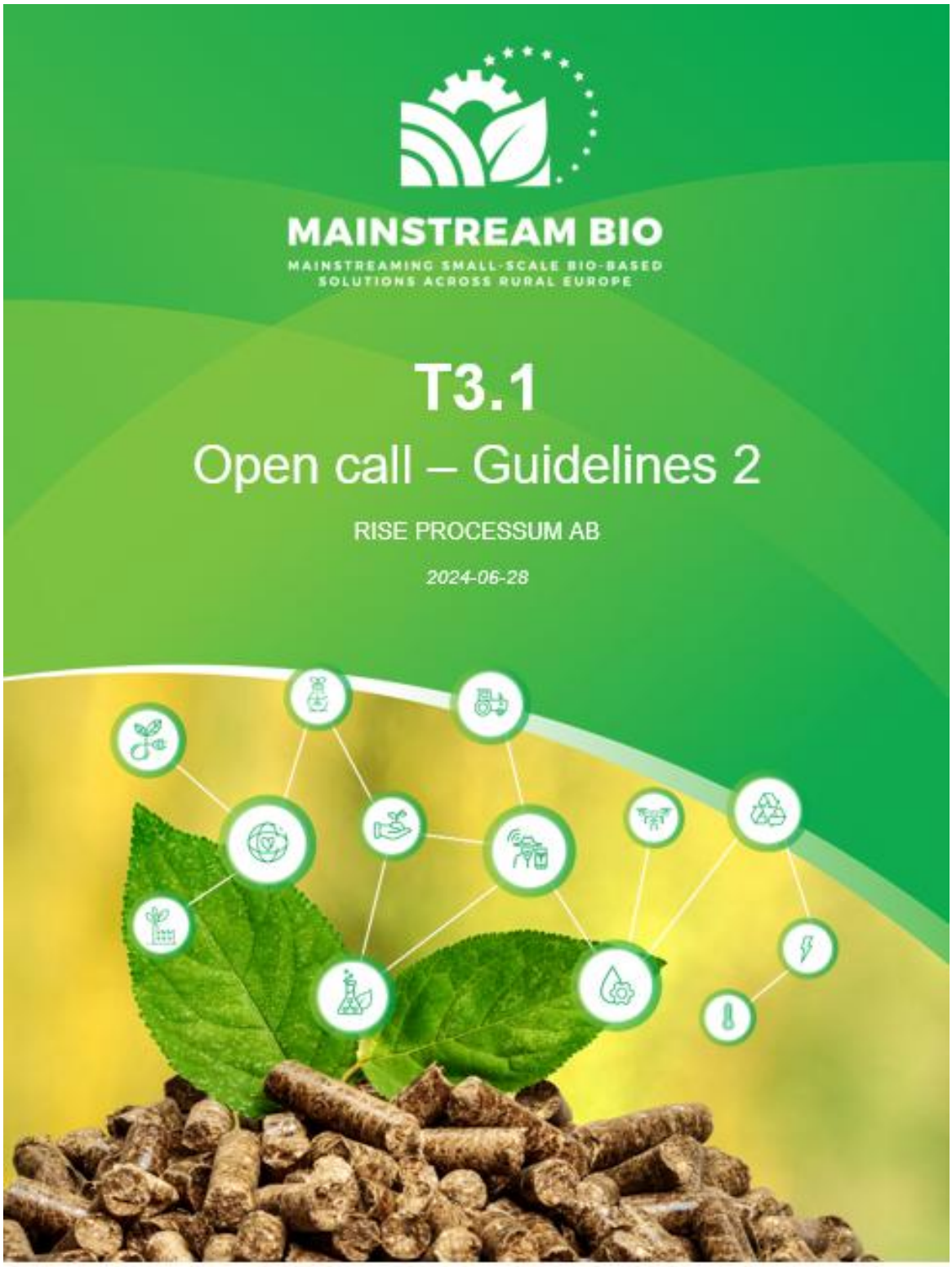
In total, counting the First and Second Innovation Rounds, **58 services to 44 cases** were provided. The number of **MAPs reached was 33,** and **378 innovators** were impacted through MainstreamBIO's services.

For Task 3.4, FBCD has distributed guidelines that facilitate the implementation of the network events and demo days by the partners who are actively running the Multi-actor Innovation Platforms

(MIPs). The first round of networking events started in May 2024 (M21) and finished in November 2024 (M27), gathering a total of 177 participants. Meanwhile, the second round of networking events started in March 2025 and finished in June 2025, with 189 attending in total. So, in total, **14 networking events were performed, with a total of 366 attendants**. These networking events and demonstrations not only inspired new actors to engage but also illustrated the practical viability and economic potential of bio-based solutions.

7. Annexes

7.1 Open call – Guidelines 2



1. Introduction

In Task 3.1, at least 35 promising cases of multi-actor partnerships (5 per MIP) will be identified and selected to receive and benefit from the projects hands-on innovation support services across 2 rounds. To find the cases that we will support, open calls for interest will be launched across all MIPs (1 per round).

In parallel, all MIPs will scout their region, identify and nominate at least 10 partnerships each to build a long list of potential cases that could be supported.

In the first round 36 cases applied, and 32 cases were supported, 2 of which already applied as MAPs in the first open call.

1.1 Partners' responsibilities

PROC will provide the guidelines and the documents supporting the launch of the second open call by M22. Then, each MIP (INNV, MTU, AUP, IUNG, WR, PROC, and FBCD) is responsible to organize their corresponding Open call launch in the timeframe of M23 to M25, as well as evaluate the applications and nominate potential cases by M26, accordingly to the guidelines described in section 2. Likewise, each MIP is responsible to review the long list they generated in the First Innovation Round and update it with at least 10 potential partnerships that could be interesting to support in the second round, as described in the guidelines below in section 2.

The open call launch and the case selection will be coordinated and conducted by:

- Bulgaria: AUP
- Denmark: FBCD
- Ireland: MTU
- Netherlands: WR
- Poland: IUNG
- Spain: INNV
- Sweden: PROC

2. Guidelines for the open call

2.1 Launch

Each MIP will decide when to launch the open call (2nd round), but it must be done between M23-M25 (July 2024 – September 2024). The open call should be open for at least one month. Each MIP is responsible for collection of the cases from their region. The application template to the open call consists of an excel-file. Each MIP is responsible for translations of the original document (EN version) to their regional language, if necessary.

Each MIP is responsible for promoting their corresponding call, with the support of WHITE, who will announce and advertise the different calls in the MainstramBIO project webpage. A special section for the open calls will be available, where information can be found and where the template for

proposing a case to the open call can be downloaded. WHITE will provide the link of the site when it is set.

The goal is that all MIPs receive at least as many applications as the number of regional MAPs they need to support during the Second Innovation Round to accomplish the project objective of 5 multi-actor partnerships per MIP.

2.2 Evaluation and selection of cases

Each MIP is responsible for evaluating the applications according to the *Evaluation criteria matrix* provided by PROC, assessing their eligibility and nominating the potential cases ensuring the compliance with the project directives. Please, *note!* that it is not a requirement to meet all criteria. They are intended as support for the assessment. However, the potential of applications to form MAPs and accomplish with project KPIs should be prioritized. If additional information is needed for the evaluation, the responsible MIP can contact actors behind the case submission for clarifications.

The evaluation of applications and selection of potential cases will be completed by **2024-10-11**. By this date, all MIPs need to provide to PROC a list of nominated potential cases, including the following information found in the application: background, the purpose and the goal, the needs for support, the service requested and the maturity of the process if scale-up advisory and/or technoeconomic analyses have been selected. Additionally, each MIP must suggest a preliminary service provider for each case (Table 1 can be used for support). This information will be valuable and used in the subsequent allocation of cases that will take place in a joint meeting with MIP leaders and service providers.

Table 1. List of innovation services offered in the Second Innovation Round and corresponding service providers.

	Service name	Provider
TECHNICAL SERVICES	Project design and development advice	WR
	Scale-up advisory*	PROC
	Nutrient management and fertilization	IUNG, AUP
	Technology scouting	WR / KAM of each MIP
	Techno-economic analysis**	PROC
BUSINESS SERVICES	Business model design and optimization	INNV, Q-PLAN
	Market analysis	INNV, Q-PLAN, PROC
	Business mentoring	INNV, Q-PLAN, PROC
	Guidance in accessing funding	INNV, Q-PLAN, PROC
	Matchmaking	KAM of each MIP, INNV, PROC

*Requirements to base the service: flow diagram, operational conditions and material balances data on the process at least from small scale experimentation are required. Service advice can be tailor depending on the maturity of the process and product development.

**Requirements to base the service: Flow diagram, operational conditions, material balances and energy balances* data on the process, at least from small scale experimentation. Energy balances could be calculated during the service if operational conditions and material balances are already well defined.

2.3 Distribution and allocation of services among service providers

A meeting will be held between the MIP leaders and the service providers to select and allocate the nominated cases that will be finally supported in the second round. In the meeting, the innovation services required by the potential cases identified by each MIP will be reviewed and match to service providers. The distribution of cases among the service providers will be conducted attending to the following criteria:

- Each MIP needs to support at least 5 multi-actor partnerships along the two innovation rounds.
- Transferring cases between MIPs will be subjected to the availability of service providers after those have been assigned the eligible cases in their respective region. Cases from other regions will be only prioritized once the MIP the service provider belongs to has reached the minimum of 5 MAPs supported, and their support is then more required by other MIPs to reach their own goal of 5 MAPs. By prioritizing that each MIP supports their own regional applications, it is expected that the MAPs will gain a better profit and stronger connections for their regional development, as well as a higher contribution and impact towards bioeconomy growth in the region.
- The case must match the competence and resource possibilities of the service providers. For that purpose, the pointed service provider has to receive the information of the corresponding case (background, the purpose and the goal, the needs for support, the service requested and maturity level of the process), evaluate the needs and decide whether they are able to support the case or not. The intention of this is that all the MAPs supported can gain most of the service based on their actual needs, so once the service is completed the MAPs have received valuable information that boosters their development.
- Like in the first round, the goal is to maximize the number of applications that will receive at least one service. If possible (resources left), the cases applying for more than one service may be granted with a second service.
- Applicants granted in the First Innovation Round are allowed to apply again in the second round. Their nomination and final selection will be subjected to the number of new MAPs to be supported in the Second Innovation Round and project resources.
- A reserve list will be created with the nominated cases that has not been granted due to lack of resources. They will be considered in the event that allocated cases decline or cannot participate because of circumstances beyond the project control/due to external reasons.

The selection and allocation of the cases to service providers must be completed by **2024-10-25**.

2.4 Notification to applicants

Whether the applications have been granted, included in the reservoir list or rejected, MIP leaders will notify to all their applicants on the final decision and thank them for their interest and participation. For the cases accepted, the decision notification should include an invitation to the first meeting with the service providers to discuss and agree the details of the service. Responses to all applicants must be sent by **2024-10-31**, and the initial meeting can be schedule starting in M27. After the initial meeting is conducted, the MIP leader will compile the details of each specific service in the document *Terms of Reference* with the support of the corresponding service providers, which will be then sent

to the granted applicants for their signature, so they are formally enrolled in the MainstreamBIO's Second Innovation Round. The Terms of Reference must include the contact details of the corresponding MIP leader and the service provider responsible for each case, as well as a brief description of the service agreed.

The provision of the services will then start under Task 3.3 (M27-M34).

2.5 Creation of the long list

Each MIP is responsible to create a list (Excel-file) of potential cases that could be supported with at least the number of cases that is needed to reach the target of 5 MAP's. The list should contain information about the person(s)/organisation(s)/company(ies), short description about the background of the idea/business case and what innovation services that is needed (see Figure). The list should be finished and send to PROC by **2024-08-30**. *Note!* that partnerships listed in the long list generated in the First Innovation Round that have not been supported yet and are still in the focus can be considered again in the new list for the second round.

	Person(s)/Organization(s)/Company(ies)	Background *Describe the background of the idea/business case, steps taken so far and the current challenges in order to take the next step.*	What kind of help is needed *Describe your needs for support. Is it e.g. scale-up advisory, techno economical analysis, market analysis, advice regarding how to access funding/financing support or matchmaking?*
1			
2			
3			

Figure 1: Overview of what information each MIP should fill in to create the long list for the second round.

2.6 Timeline

Timeline for open call process (2nd round)

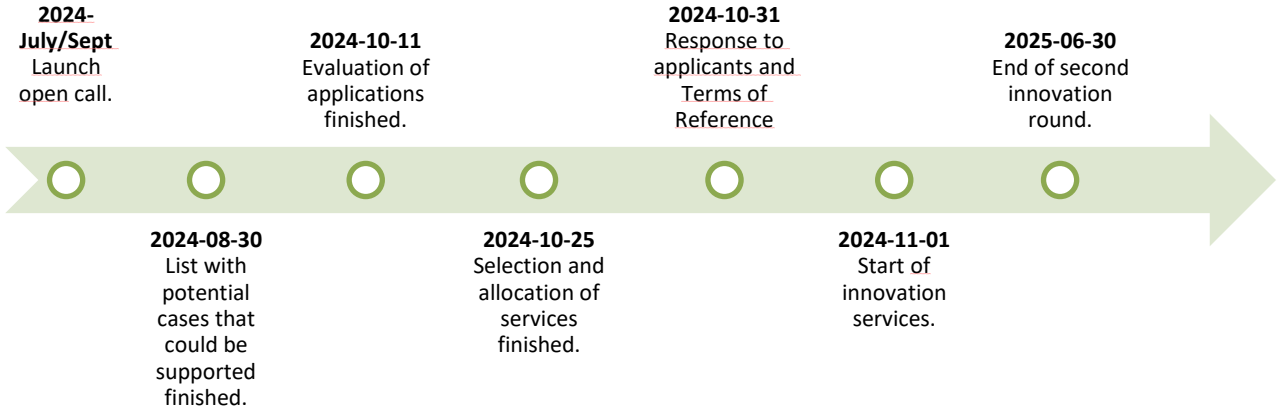


Figure 2: Timeline for the launch of the second open call, nomination of candidates and allocation of services.

7.2 MainstreamBIO Open Call 2024 – Application template

The open call template is found at the MainstreamBIO project repository, in the following link:

https://docs.google.com/spreadsheets/d/1iJv8ln9NnPT4_dFb_PIdOcLfKU2LYxFO/edit?usp=drive_link&ouid=107483060715237388736&rtpof=true&sd=true

MainstreamBIO Open Call 2024 - Application template		
Short title		0 character(s) / 150
Applicant 1 (main contact) Name Organization/Company Type of organization Organization number E-mail Phone number		
Applicant 2 (partner) Name Organization/Company Type of organization Organization number E-mail Phone number		*Repeat this row as many times as necessary to include all the partners of this application*
If you do not have partners at the moment, write "X"		
Is there any specific partner you wish to start collaborating with? **Suggest partners you would like to connect.** **"This field is mandatory if you are applying to the call individually. Connections with other actors in the value chain will be created during the service. We will consider your suggestions but cannot ensure the collaboration. Additional suggestions from the MIP/service providers may be also provided.**		0 character(s) / 100
Background Describe the background of your idea/business case, steps taken so far and the current challenges in order to take the next step.		0 character(s) / 1500
Purpose and Goal Describe the purpose (why) of the requested support and your goals, what you expect to achive, with the requested support.		0 character(s) / 1000
What kind of help is needed to support your development? Describe your needs and connect to the innovation support services offered, business or technical.		0 character(s) / 1500
Select the innovation support services you apply for, in order of priority The number of services granted will depend on project resources.	dropdown for service 1 dropdown for service 2 dropdown for service 3	
In case you are applying for scale-up advisory and/or techno-economic analysis, do you have the required data to base the analysis on? Please, describe the maturity of your process. Requirements: Scale-up advisory: Flow diagram, operational conditions and material balances data on the process at least from small scale experimentation are required. We can tailor the advice depending on the maturity of the process and product development. Techno-economic analysis: Flow diagram, operational conditions, material balances and energy balances* data on the process, at least from small scale experimentation. *Energy balances could be calculated during the service if operational conditions and material balances are already well		0 character(s) / 1500
Other If you want to add something more.		0 character(s) / 1000

7.3 MainstreamBIO Open Call 2024 – Criteria for guidance in assessment and prioritisation of submitted cases

The Evaluation criteria matrix can be found at the MainstreamBIO project repository, in the following link:

https://docs.google.com/spreadsheets/d/17FH3HqQ3NC-gyO66ziWENAUDeLkDVzBk/edit?usp=drive_link&ouid=107483060715237388736&rtpof=true&sd=true

MainstreamBIO Open Call 2024 - Criteria for guidance in assessment and prioritization of submitted cases

Case under evaluation (name)	

ELIGIBILITY			
	YES	NO	Comment
Does the initiative fall under MainstreamBIO's umbrella? (small-scale, bio-based)			
Does the initiative come with an already formed multi-actor partnership (MAP)?			
If the previous answer = NO, is there a plausible MAP to be formed with our known regional actors? Remember that MAPs should be created to accomplish with the objetives of the project and **KPI-1.**			If answer above = NO, but this answer = YES, this case **is** eligible; otherwise it is not eligible
Can the needs of the initiative be matched to a service provided in this MIP?			
If the previous answer = NO, is there a plausible service provider who could provide the necessary service?			If this answer = YES, supporting this case must be approved by QPLAN, INNV and the implicated service provider
Is the initiative at the correct maturating point to receive this service?			
Can this initiative benefit from a different service than the suggested?			

MainstreamBIO Open Call 2024 - Criteria for guidance in assessment and prioritization of submitted cases

Case under evaluation (name)

EVALUATION

It is considered positive if a proposed case contributes to the criteria below:

DEVELOPMENT OF SUSTAINABLE	YES	NO	Comment
Does the implementation of the activity/idea contribute to an increased use of biomass?			
Does the implementation of the activity/idea contribute to reduced use of fossil raw materials?			
Does the implementation of the activity/idea contribute to the develpment of 2 different bio-based ingredients or end products? **(KPI-3)***			
Does the implementation of the activity/idea contribute to climate or environmental benefits (reduced emissions, transport, energy use etc.)?			

ECONOMIC POTENTIAL	YES	NO	Comment
Does the implementation of the activity/idea contribute to improved market penetration (new business opportunities/increase in sales of products/services)? **(KPI-4)***			
Does the implementation of the activity/idea contribute to increase income from exploitation of biomass and waste streams? **(KPI-5)***			
Does the implementation of the activity/idea contribute to better profitability for the target group?			
Does the implementation of the activity/idea contribute to reducing the risks connected to new investments for the target group?			
Does the innovation support service contribute to new knowledge important for future strategic decisions and investments? (Increased knowledge of market needs, potential for profitability etc.)			

TECHNICAL POTENTIAL	YES	NO	Comment
Does the implementation of the activity/idea contribute to technical development that promotes the bioeconomy?			
Does the implementation of the activity/idea contribute to the technical development of companies within the target group?			

SOCIAL POTENTIAL	YES	NO	Comment
Does the implementation of the activity/idea contribute to social benefits for the target group?			
Does the implementation of the activity/idea support safe and good lives in the society in general?			
Does the implementation of the activity/idea contribute to decrease the social gaps concerning well-being, justice, power, rights and individual needs?			

IMPLEMENTATION POTENTIAL	YES	NO	Comment
Does the small-scale biobased solution supported by the activity/idea has the potential to be implemented by 2030? **(KPI-11)***			
Does the small-scale biobased solution supported by the activity/idea has the potential to create or safeguard jobs by 2030? **(KPI-12)***			

7.4 Open call – Terms of Reference

The document Terms of Reference can be found at the MainstreamBIO project repository, in the following link:

https://docs.google.com/document/d/1xkyBM58R8FVbgy0AJWh5NvTq0JY1EXl6/edit?usp=drive_link&ouid=107483060715237388736&rtpof=true&sd=true

The Terms of Reference is a 4-page word document including the information shown below.

- **Do you have an idea on how to contribute to the increased sustainable use of biomass?**

If so, what does your initiative need to move forward?

- The project MainstreamBIO offers support to help implement or improve your bioeconomy business-idea. Send a proposal regarding your idea and needs and we will evaluate the possibilities to support your case.

Introduction

You have been selected to receive innovation support in the **MainstreamBIO Open Call – [REGION]**. The current document outlines the Terms of Reference that will help you understand what this involves. Please take the time to carefully read this document and ask for any clarifications you may require.

MainstreamBIO – Why this Open Call?

MainstreamBIO is a 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.

This Open Call is one of MainstreamBIO actions to support 35 multiactor partnerships in overcoming barriers and getting bio-based innovations to market with hands-on innovation support, accelerating their development of bio-based products and services. To achieve this target, MainstreamBIO involves 10 partners across 9 different countries in 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.

You can find out more information about MainstreamBIO, the consortium and the Open Call by visiting www.mainstreambioproject.eu.

Innovation services and role

Our services

This Open Call counts with the following portfolio of 10 services:

- Business services:
  - Business model design and optimization
  - Market analysis
  - Business mentoring
  - Guidance in accessing funding
  - Matchmaking
- Technical services:
  - Project design and development advice
  - Technology scouting
  - Scale-up advisory
  - Techno-economic analysis
  - Nutrient management and fertilization

Services will be provided by the partner(s) expert in the matter. If the applicant and the service provider are not fluent in a common language, the project figure Key Account Manager (KAM) will act as translator of the information.

Services can be provided from 01/11/2024 to 30/06/2025. The specific duration and dedication will vary depending on the service and the time availability of both parts.

Role

Selected applicants will participate in online or face-to-face meetings (depending on location restrictions) with the service providers. In the first meetings, selected applicants will share their case information to define the current state of the initiative and the short-, mid- and long-term goals, as well as any detail relevant to the correct providing of the service. After this information gathering, additional meetings will be held to provide the service. Other activities of interest, such as field visits, could be performed if needed.

Needed services

Description of the background:

[text]

Requested:

[text]

Innovation Support Service offered:

[text]

Dissemination of results

The results from the innovation support and collaboration with the selected MainstreamBIO Open Call cases are to be summarized and published on the MainstreamBIO project web page. The results may also be communicated in e.g., newsletters or seminars.

Before the results are disclosed for publication or are made public in another manner, the participating entities will be given the opportunity to review the result to make sure no business sensitive or confidential data are published. If there is no notification or response for more than two weeks after receiving the request and the necessary information for review, the publication is considered to have received consent.

Agreement

Applicant [n] (repeat for as many different applicants in one application):

Organisation name: [organization]

Address: [address]

Phone: [phone main contact person]

E-mail: [email main contact person]

Responsible for innovation services:

#	Role	Name	E-mail
1	MIP leader for [REGION]	[Name] [Surname]	[email]
2	Contact person for service 1	[Name] [Surname]	[email]
3	Contact person for service 2	[Name] [Surname]	[email]
4	…		

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

We need your data to contact you in order to plan and evaluate your proposed case and carry out the planned support.

We will share your data with a few other MainstreamBIO project partners that are also involved in this task (Q-PLAN). 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.

I hereby give my consent to:

*(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 personal data is used in order to carry out the open call innovation service(s).	☐
2	Participate in the Open call and contribute with the information needed to carry out the innovation service(s).	☐
3	The results from the innovation support can be published.	☐

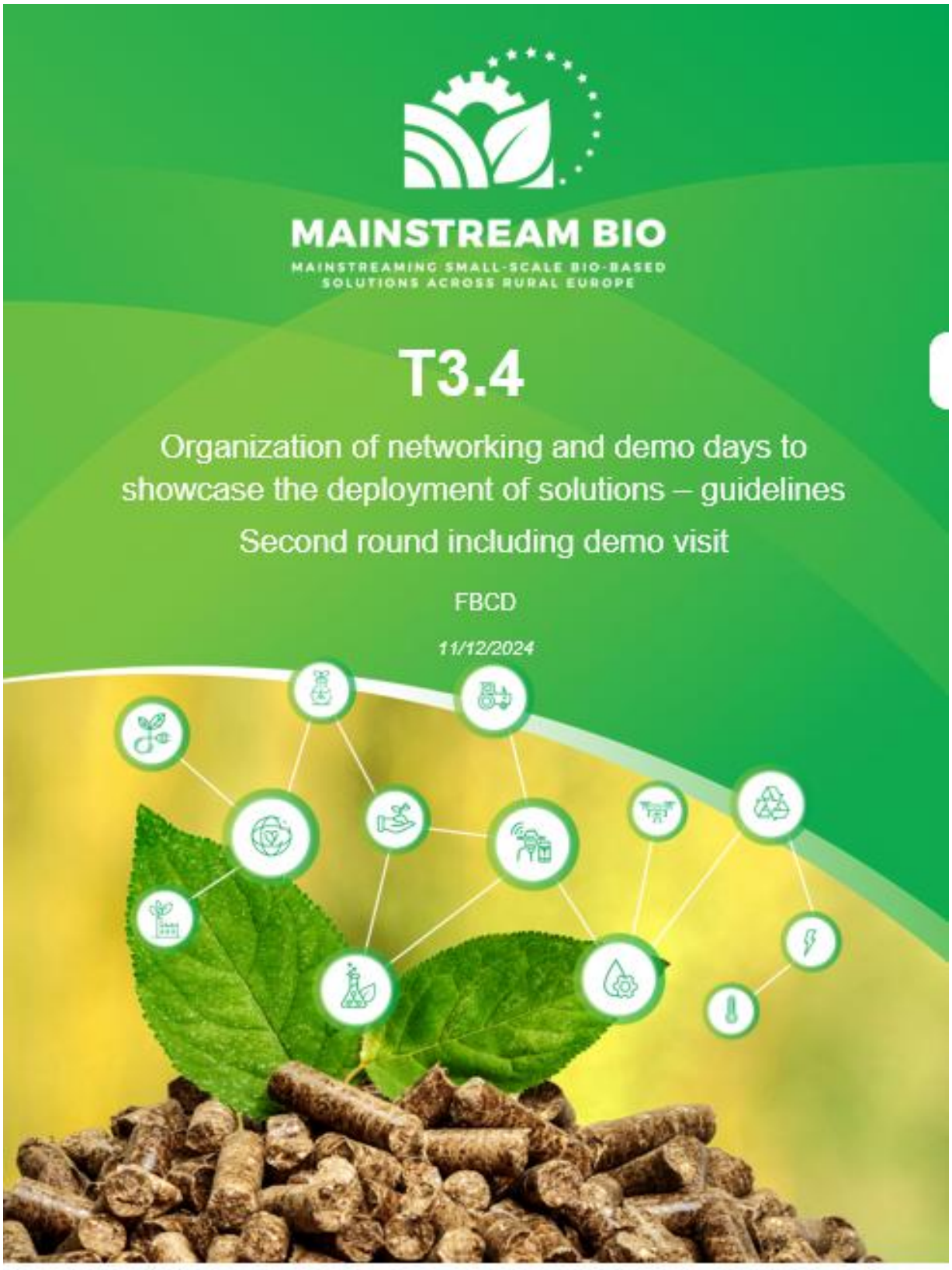
Name of participant _____ Date _____ Signature _____

Contact point

Any enquiry, complaint or concern about any aspect of the Open Call can be addressed to the **MIP Leader** that oversees the set up. The contact details of the MIP Leader are provided below:

MIP Leader: [partner]
Contact person: [Name] [Surname]
Phone: [phone contact person]
Email: [email contact person]

7.5 Networking and demo days – guidelines Second round including demo visit



Funded by the European Union

1. Introduction

In line with the other important activities of MainstreamBIO, facilitating the overall aim of the project, the networking events and demo day in task 3.4. contributes to reaching this goal. As stated in the GA, the second expected outcome “Provision of tailored and independent support to innovators to accelerate the development of marketable products and services and improve the market penetration of bio-based solutions in Europe.” Networking plays a very important role in ensuring that innovators can access tailored support across the entire life cycle of bio-based projects, to guide and accelerate the commercialization of their solutions, products and services to offer innovators market insights that can help achieve increased marketability for their products/services and 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 all while networking and mentoring help build the skills and collaborations needed to deploy their business models and develop demand-driven bio-based value chains.

According to the Grant Agreement, 2x7 networking events (1 per round, by M24 and M36 respectively) and 1x7 demo day (by M36 combined with networking events) will be organised in Task 3.4 by each of our MIPs in the Netherlands (WR), Poland (IUNG), Denmark (FBCD), Sweden (PROC), Bulgaria (AUP), Spain (INNV) and Ireland (MTU) to **showcase the deployment of solutions** and to **catalyze 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. To ensure efficiency, the consortium will seek to partner with agricultural or other business events organised in our focal regions.

1.1 Partner’s responsibilities

Task 3.4 is led by FBCD, supported by all partners, and runs from M22 (June 2024) until M36. As the leader of Task 3.4, FBCD is responsible for developing guidelines that facilitate the implementation and conduction of the network events and demo days by the partners who are actively running the Multi-actor Innovation Platforms (MIPs). These guidelines will serve as a framework for effective organisation of the regional network events, ensuring that collective knowledge and expertise are fully utilized.

After the completion of each network events in M24 and M36, the organising partners are required to fill in a reporting template and share it with FBCD.

The implementation of the workshops will be coordinated by:

Bulgaria - conducted and coordinated by **AUP**

Denmark - conducted and coordinated by **FBCD**

Ireland - conducted and coordinated by **MTU**

Netherlands - conducted and coordinated by **WR**

Poland - conducted and coordinated by **IUNG**

Spain - conducted and coordinated by **INNV**

Sweden - conducted and coordinated by **PROC**

The key outcomes of the first network events in M24 will be outlined in a short report on the activities and achievements and will be integrated in D3.1 (M24). As task 3.4 is a part of work package WP3 – Delivery of innovation support accelerating the scale up of small-scale bio-based solutions led by

INNV and fulfills the objective 3.4.: Successfully organise a series of networking and demonstration events to catalyze connections, the outcome of the network events in both M24 and M36 as well as the demo day, will be integrated in D3.3 (M36).

2. Initial guidelines for setting up the network events

This document is intended to support partners in organizing their workshops and missions and will assist in the following paragraphs

- Preliminary analysis of the scope and objectives of the network event.
- Format of the event and demo day.
- Duration and reporting.
- The definition of the participants and the invitation process.

2.1 Objectives of the T3.4 network events and expected outcome

The main goal and objectives of the network events and demo day is to facilitate connections between our supported multi-actor partnerships and suitable partners (customers, consumers, tech providers or investors), to inspire further actors to get engaged in and support the bioeconomy as well as to showcase the deployment of solutions.

2.2 Time planning of the workshops

The **first round** of network events is planned to take place close to M24, i.e. **M22-M24 (June-August 2024)** of the project. **CONDUCTED**

The **second round** of network events and demo days is planned to take place close to M36, i.e. **M29-M32 (January – April 2025)** of the project.

Demo days can also be included in the first round if it is suitable for the network event.

As stated in the GA, the consortium will seek to partner with agricultural or other business events organised in our focal regions to optimize the organization and recruitment of participants to facilitate connections between our supported multi-actor partnerships and suitable partners (customers, consumers, tech providers or investors.

All partners need to provide details about organization like estimated number of participants, venue, type of event, and optionally topics/solutions no later than 2 weeks before the organization of the events.

Note: Networking events can be organized together with second awareness raising in-person event.

Round 2 in the awareness raising campaign focus on the role of women, youth, consumers and other 'vulnerable groups' in the bioeconomy.

All In-person events Round 2 should be completed by M31 (March).

Table 1. Indicative action plan and individual check list

Action	Who	When	Conducted
Conduct second round of networking events (including demo day/demo visit)	**MIP leaders**	**January – April 2025 (M29-32)**	
Set the date and venue/format and start inviting	MIP leaders	2-4 weeks prior to the event	
Share event plan including final agenda for FBCD and WHITE for dissemination	MIP leaders	2 weeks before the event	
Compile list of participants and distribute final agenda for participants.	MIP leaders	1 week before the event	
Distribute list of participants	MIP leaders	On the date of the event	
Fill out reporting templates and send to FBCD	MIP leaders	Reporting submitted no later than end of April 2025	
Send back data from questionnaires for Q-PLAN	MIP Leaders	After the event	
Prepare a short report on the activities and achievements of T3.4, second networking event to be integrated in D3.3.	FBCD	May 2025	

Please fill put and update FBCD and WHITE

MIP	Date networking event round 2	Type	Status
AUP	TBC	TBC	TBC
FBCD	Likely March 2025	Network, talks and demonstration	TBA
MTU	April 2025 (+ cross mutual learning event)	Network and talks	TBC
WR	TBC	TBC	TBC
IUNG	TBC	TBC	TBC
INNV	Likely March 2025	Visit to MIP member facilities	On hold
PROC	TBC	TBC	TBC

2.3 Format and time frame

The format of the events and the final agenda, defined by each workshop organizer, will largely determine the duration of the events. Each partner will determine the duration of the event and the demo day. Given that the event is set to facilitate connections between our 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 **as well as to** showcase the deployment of solutions, it is recommended to organize the event for at least 1-2 hours.

2.4 Workshops' participants

Open issues and key questions to be considered:

- ✓ Venue and logistics?
- ✓ Topics and themes of the local event/solutions to be show cased?
- ✓ Number of participants?
- ✓ Types of participants? Who are we going to invite?
- ✓ Invitation process (i.e. when, how, preparatory actions etc.)

2.5 Budget and number of participants and invitation process

There is no specific recommended number of participants according to the Grant Agreement. However, given that the main goal of the event is to facilitate connections between our 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 as well as to showcase the deployment of solutions, and taken the budget in consideration, it is recommended to organize the event for 15-20 participants per event. There is an allocated budget to each partner for the two (2) networking event and demo day (DoA, pg. 24). The available budget for the implementation of the event and mission is depending on how each partner will organise the event. Ideally, the budget is suggested to cover venue, catering for 15-20 participants per event: 1**,000€ per MIP per network event.** As each MIP leader needs sufficient time to recruit and promote the event for potential participants in MIP leader's network as well as their organisations network and send out invitations.

2.5.1 *Types of participants*

The participant for the networking event should bring together a diverse group of participants with interest in gaining knowledge about small-scale bio-based projects, that can foster connections between supported multi-actor partnerships and suitable partners (customers, consumers, tech providers or investors) and promote the projects' main goal of setting bio-solutions into mainstream practice across rural Europe and hereby support the development of bioeconomy of Europe. Participants can be comprised of multi-actor partnerships and stakeholders from the target regions involved in the project and representatives of linked networks and initiatives in the regions representing a spectrum of expertise, including primary producers, agricultural students, researchers, entrepreneurs, policymakers, industry representatives, and community leaders.

2.6 Supporting material

A package of supporting material is available before each event for the organizers. This package includes:

- An agenda template which can be adjusted by each MIP Leader according to each workshop's schedule.

- The reporting template, which all MIP Leaders should complete once the event is completed and send to FBCD.
- Presentations of the project – main findings and success stories from the respective MIP partners organizing the events, adjust accordingly for each MIP if needed.

Table 2 presents an overview of the materials needed for each workshop format, along with corresponding file titles and links to access the files on the G-drive.

Table 2. List of CCWs material

Material	File
Organisational guidelines	This document
Agenda template	End of this guideline
Introduction presentation	MainstreamBIO_Project_overview_ReviewMeeting.pptx
Reporting template	End of this guideline
MainstreamBIO leaflets and posters	Visuals & Templates

3. Organizational aspects

Open issues and key questions to be considered:

- ✓ Venue for network event and demo day (M36)
- ✓ Agenda and topics/which cases to showcase?
- ✓ Talks and presentations during the networking event?
- ✓ What is the available budget for the event and how could it be allocated?
- ✓ What will be the format of the event – are there any other agricultural or business events organised in our focal regions to partner up with?

3.1 Location and venue

As facilitation of connections is the main goal in T4.3 the network events are organized as physical meetings. It is recommended to choose a central location in the selected region that is easily accessible for as many participants as possible. To increase the number of participants, it is recommended to organize the event on a location show casing interesting solutions or persons to give interesting keynote speaks.

It is up to MIP leaders to decide how each event is organized, but one suggestion could be to arrange an event consisting of two parts: a networking event with presentations of selected cases, lunch and a field trip on the premise or close to the venue. Remember to allocate travel time in the agenda if the networking event and the demo site are located at different addresses.

3.2. Facilitator and moderator

Handling various organisational issues (booking of venue, catering, possible keynote speaker, workshop, show case of demo site) before and on the day of the event.

Coordinate presentations according to the agenda.

Monitor time allocation and agenda.

Follow up after the event.

3.3 Language

Local language or English, depending on preferred language of participants. Reporting template is submitted for FBCD in English.

3.4 Note taking

Notes and photos must be collected to support reporting of the outcomes of the event as well as for communication and dissemination purposes. The notes from the 2 networking events and the demo day will contribute greatly to the outline of a short report, that will contribute to the finalization of the deliverables D3.1, M24 and D3.3, M36.

3.5 Format of the event

It is free for MIPs to decide upon the format of the event. However, networking and physical attendance is crucial.

Overall, each event and demo day must:

- ✓ briefly present the main concept of MainstreamBIO and key-achievements
- ✓ facilitate connections between our supported multi-actor partnerships and suitable partners (customers, consumers, tech providers or investors)
- ✓ inspire further actors to get engaged in and support the bioeconomy
- ✓ showcase deployment of solutions
- ✓ invite participants to engage in future activities facilitated by MainstreamBIO

General considerations include:

- Depending on number of participants, a roundtable is suitable. In case of many participant (more than 15) an introduction can be served via participant list.
- To facilitate a good dialogue and promote networking, it is recommended to allocate participants into small discussion groups. One way is to form groups in advance in relation to areas of interests such as use of biomasses, business development, nutrient recycling, technologies etc.). Another way is to organize the workshop as a rotation session, with pre-defined, open questions such as ‘how you gain access to biomasses, what are your challenges, what are you searching for in the future’ etc.

4. GDPR – Informed Consent Form

Important! During the workshops' implementation, personal data (e.g. contact details, group photos or call screenshots) will be collected. It is essential that all project activities fully comply with the Ethics Requirements of the MainstreamBIO project (e.g. compliance with GDPR, obtaining informed consent). To this aim, an informed consent form should be distributed among participants before the event officially begins.

Since the workshops will take place physically, such a form should be signed by each participant (a translated hard copy of the document should be signed).

After your workshop, participants have agreed to the terms and conditions in our consent form, it will be useful if you could take some pictures (or screenshots in case of virtual meeting) of your white boards, post its or of your participants' brainstorming phase.

Important! During network event implementation, personal data (e.g., contact details, group photos) will be collected. It is essential that all project activities fully comply with the Ethics Requirements of the MainstreamBIO project (e.g., compliance with GDPR, obtaining informed consent). To this aim, an informed consent form (see Annex I) should be distributed among participants before the event officially begins.

To ensure collected data can be used, such a form should be signed by participants before the start of the workshop (e.g., digital signature). Since the event will take place physically, a hard-copy of the informed consent form can be distributed and signed *in situ* before the workshop begins. **MIP members do not need to sign informed consent form** since the MIP membership form included participation in activities.

After your event, participants have agreed to the terms and conditions in the consent form, pictures of the group during the activity can be taken. Please, share with WHITE the pictures of the event for D&C purposes.

5. Reporting template

No later than the end of August 2024 (round 1) the organizing partners will have to send to FBCD the reporting template making first sure that it reflects on the following aspects:

1. General information (date, place, final agenda, etc.)
2. Detailed remarks & key-outcomes from the event's sessions
3. Communication and dissemination (e.g. promotional material distributed, stakeholders engaged)
4. Material and multimedia provided during the event.

It is important MIP leaders carefully read the reporting template (sent along with this document) to see what they will need to note down during the workshop and what they will have to report to FBCD before they organize and implement the event.

5.1 Template for reporting and suggestion for agenda

Organizational information

MainstreamBIO Partner:

MainstreamBIO Representatives:

Conversion leaders:

- Note-taker:

Date:

Venue:

Agenda:

Activity information

Number of participants: X, of which

- Farmers:
- Producers:
- Regional actors:
- Industry experts:
- Academics:
- Technology enthusiasts:
- Entrepreneurs

Notes:

General impressions and remarks:

- Short description of content and outcome of the event including detailed information about demo or visit site
- Notes: _____

- On the meeting overall: e.g., *Were participants active? If not, how can we encourage participation? Can the methodology be improved?*

Notes:_____

- Other comments:

Notes:_____

- **Material produced:** *Include the proofs of organisation of the events (pictures)*

Insert picture(s) here

5.2 Template for list of participants

List of participants: *can be printed to be fill-in at the workshop, scanned and added to the feedback report.*

#	Name	Surname	Organisation	Type of stakeholder	Signature
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
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5.3 Informed Consent Form

Each MIP Leader is responsible for translating this form into the local language of the workshop.

Consent Form for the participant in the networking events and demo days.

(To be emailed to participants, and signed and returned prior to the workshop)

Consent questions checklist:	**YES**	**NO**
Would you like to take part in the networking event?		
Do you agree to the storage of your contact information from this event until the study end? (August 2025)		
Do you agree to appear in audio/visual material obtained during event?		
Do you agree to dissemination of audio/visual obtained during the event?		
Do you agree to the storage of the audio/visual obtained during the event until the study end? (August 2025)		
Do you agree to your data (name, affiliation, area of expertise) being used in aggregate form in a final report?		

If you want to withdraw your participation in this study, at any stage until August 2025, including any information or audio recordings associated with your participation, you may do so by contacting XXX(name), XXX@XXX.

Name: _____ Date: _____

6. Annexes (to the Annex 7.5)

6.1 Annex I – Participants profile, invitation criteria, supporting materials and promotion recommendations

We encourage the participation of all regional actors including our supported multi-actor partnerships and suitable partners (customers, consumers, tech providers or investors). At this juncture, an initial list of potential participants has been compiled and is suggested to the organizers as suitable for these workshops:

1. **Farmers**
    - Those actively engaged in bioeconomy practices.
    - Farmers with varying scales of operations (small, medium, large).
2. **Producers**
    - Individuals or organizations involved in the production of bio-based materials or products.
    - Companies incorporating bioeconomy principles into their manufacturing processes.
3. **Regional Actors**
    - Local government representatives and policymakers.
    - Environmental organizations and advocates.
    - Research institutions focused on bioeconomy.
4. **Industry Experts**
    - Professionals with expertise in bioeconomy and related technologies.
    - Scientists and researchers in the field.
5. **Academics**
    - Teachers, professors, or students specializing in bioeconomy or related disciplines.
6. **Community Representatives**
    - Members of local communities affected by or interested in bioeconomy initiatives.
    - Non-profit organizations working at the grassroots level.
7. **Technology Enthusiasts**
    - Individuals interested in adopting and promoting sustainable technologies.
    - Tech-savvy users who can provide insights into the usability of digital tools.
8. **Entrepreneurs**
    - Individuals exploring business opportunities in the bioeconomy sector.
    - Start-up founders with a focus on sustainable practices.

Event promotion/Invitation process - SUGGESTIONS

Creating a successful event promotion and invitation process to attract the target number of participants for the MainstreamBIO networking events is critical. This requires the event to be promoted for a prolonged period (as long as is possible) and increasing the reach and effort of the promotion approaching the date of the event.

1. **Develop Compelling Messaging**

   Crafting a clear and engaging communication strategy, requires the organizer to have in mind the primary objective of this event, which is to facilitate connections and showcase deployment of solutions.

2. **Invite the Target Audience**

   Ask specific individuals within the previously mentioned participant profiles. Tailor your messages (emails) to resonate with each audience segment, addressing their unique interests and concerns. People in your network whom you think would have an interest in joining this event.

   The invitation ought to include a request for a response, either by email or registration form linked within the email. Sending invitations to a larger number of people than the desired participants is advisable, considering that not all may be available. Those whose participation is crucial may also be reached through phone calls or informal meetings, it's up to the partner.

   In addition to the primary invitations, it's advisable to create a reserve list of participants. This list would serve as a backup in case the initially invited individuals do not confirm their attendance promptly.

   Establishing an enrolment deadline allows ample time for sending additional invitations in case of limited participation. Final confirmation can be conducted via phone calls. A week before the workshops, contacting participants to confirm details such as venue, start time, and arrival process is recommended.

3. **Utilize Various Communication Channels**

   After identifying and inviting the target audience, you should disseminate information across various platforms for widespread outreach.

   - Social Media: Leverage platforms like LinkedIn, Facebook, Instagram and, X to share engaging content, event details, and registration links. Use relevant hashtags and tag influencers or organizations in the field.
   - Website and Landing Pages: Create a dedicated page on your project website with comprehensive information about the workshops, speakers, and registration details.
   - Newsletters: Include workshop details in regular newsletters, reaching out to existing stakeholders and subscribers.

4. **Follow-Up Communication:**

   Send reminders as the event date approaches. Provide logistical details, access links, and any pre-event materials. Consider sending a post-event survey to gather feedback for future improvements.

5. **Monitor and Evaluate:**

Track the success of your promotion efforts through metrics like registration numbers, social media engagement, and attendee demographics. Use this data to assess the effectiveness of your promotional strategies.

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

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