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SOLUTIONS ACROSS RURAL EUROPE**

D4.6

Report on evaluation of MIP performance - second round

Q-PLAN International

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ABBREVIATIONS

AB	Advisory Board
CAP	Common Agricultural Policy
D&C	Dissemination and Communication
DG AGRI	Directorate-General for Agriculture and Rural Development
EC	European Commission
EU	European Union
FAIR	Findable, Accessible, Interoperable, and Reusable
FAO	Food and Agriculture Organisation of the United Nations
GA	Grant Agreement
GDPR	General Data Protection Regulation
JRC	Joint Research Centre

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M&E	Monitoring and Evaluation
MAP	Multi-actor Partnership
MIP	Multi-Actor Innovation Platform
ML	Mutual Learning

Executive Summary

The present document is part of the work under MainstreamBIO project, particularly Task 4.1, "Monitoring and evaluation of regional multi-actor innovation platforms". Overall, the purpose is to recap the monitoring and evaluation framework which was elaborated in D4.1 "Report on evaluation of MIP performance - first round" in M24, evaluate and assess key project activities, performance, outcomes, and impacts, and present the findings and results from the project.

The deliverable begins with a brief retrospective of the methodology that was followed in order to develop the Monitoring and Evaluation (M&E) framework as well as the identified project objectives for M&E. Additionally, it outlines the Monitoring framework along with its tools and methods that were used to obtain data from the project activities, and sheds light on the Evaluation and Assessment framework which was used to evaluate their performance and impact.

The MainstreamBIO M&E framework was slightly refined based on the recommendations from previous findings and feedback from the Advisory Board (AB), including a set of 100 indicators and 13 data collection methods to measure towards four main objectives. In terms of results, various aspects of the Multi-Actor Innovation Platforms (MIPs) performance, the provision and impact of our innovation support services and digital toolkit, as well as the feedback from several project activities were analysed and presented to the AB members for validation.

Concerning objective O1 - Enhance cooperation of key players and knowledge holders for bio-based innovations in rural areas, the project managed to engage significant number of key stakeholders to the MIPs, achieving positive results in the gender balance and the engagement of young farmers to its activities. In addition, remarkable was the satisfaction level of stakeholders regarding their participation in the MainstreamBIO MIPs as well as the level of trust among MIP members. Moreover, the interest in receiving innovation support services was significant, with good collaboration and satisfaction reported afterwards.

With respect to objective O2 - Support innovators to accelerate the development of marketable products and services and improve market penetration of bio-based solutions, a high interest in using the Digital Toolkit was observed from stakeholders, reflecting also the effective improvements made during the 2nd Round. Furthermore, the impact of our Scale-up and Mutual learning workshops high was, inspiring the participants through case studies and field visits. The outcome of our Policy Roundtable was also positive, as the participants highlighted the potential of MainstreamBIO policy insights.

Regarding objective O3 - Deploy existing knowledge to increase number of implemented bio-based solutions in rural areas, MainstreamBIO partners deployed existing knowledge through several tools and synergies to successfully increase the number of implemented bio-based solutions in the targeted focal regions, thus assisting the interested stakeholders to further apply small-scale biobased solutions in their businesses.

Finally, with respect to objective O4 - Build awareness and knowledge on bioeconomy, through targeted awareness raising and educational campaigns across the focal regions, we managed to increase participants' interest about bioeconomy. A significant number of participants also reported that they got a better understanding of bioeconomy, and the content of our campaigns successfully met their needs and expectations.

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1. Introduction

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

The document at hand is the deliverable **D4.6 "Report on evaluation of MIP performance - second round"**, elaborated in the context of **Task 4.1 "Monitoring and evaluation of regional multi-actor innovation platforms"**. It evaluates and assesses the performance and impact of MainstreamBIO Multi-Actor Innovation Platforms (MIPs) utilising the Monitoring and Evaluation (M&E) framework that was introduced in D4.1 "Report on evaluation of MIP performance - first round" and presents the findings and results generated throughout the project.

The remaining document consists of the following sections:

- **Section 2** provides a summary of the methodology used to design the M&E framework and outlines the Monitoring framework and the Evaluation framework[1].

- **Section 3** elaborates on the 2nd Virtual Validation workshop with the AB members.

- **Section 4** presents the main results of the evaluation and impact assessment from both innovation support rounds.

- **Section 5** provides some concluding remarks for the project and its impact.

The **Annexes** include the data collection tools used (questionnaires and forms) to collect the necessary data in the first and second round, as well as the quantitative progress towards all the defined indicators.

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[1] The methodology used as well as the Monitoring and Evaluation framework are presented in detail in "D4.1 Report on evaluation of MIP performance - first round", which was submitted in M24.

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2. Monitoring and Evaluation framework retrospection

As a foundation for assessing the implementation and impact of the regional innovation support services and digital toolkit, Deliverable D4.1 introduced the M&E framework for the MainstreamBIO project. This framework was designed to enable systematic tracking of progress and outcomes during the two innovation rounds of deployment. The development of the M&E framework in D4.1 followed a structured methodology comprising two core components: the Monitoring framework, which focuses on the continuous collection of quantitative and qualitative data through the project activities, and the Evaluation framework, which aims to analyse the data and evaluate the MIPs' performance and impact.

2.1 Methodology

The design of MainstreamBIO M&E framework was based on the six steps below.
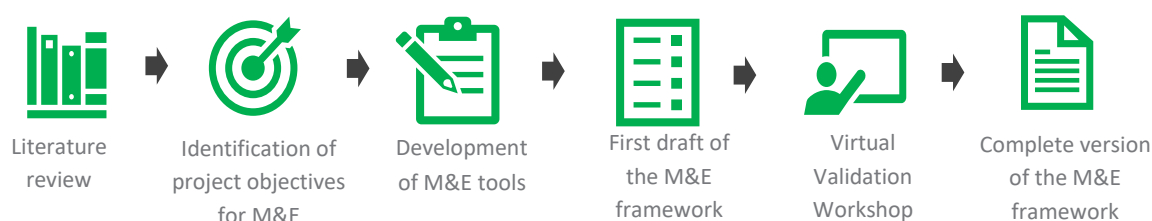
Figure 1: MainstreamBIO M&E Framework Design Approach

- **Step 1 – Literature review**: A literature review was conducted, including review of previously developed M&E frameworks, to deepen our understanding of monitoring and evaluating impacts.
- **Step 2 – Identification of project objectives for M&E**: Considering the GA provisions, a list of specific project objectives pertinent to M&E was elaborated (see Table 1).
- **Step 3 – Development of M&E tools**: Based on the identified project objectives, we developed several tools to collect data through the project's activities from the engaged stakeholders.
- **Step 4 – First draft of the M&E framework**: The methods and tools to monitor the key project activities, a pool of indicators, and the key steps and techniques to assess and evaluate the outcomes obtained were defined.
- **Step 5 – Virtual Validation Workshop**: The draft MainstreamBIO M&E framework and the results of the 1st innovation round were presented to the MainstreamBIO Advisory Board and validated.
- **Step 6 – Complete version of the M&E framework**: The feedback collected from the 1st Virtual Validation workshop led to the refinement and finalisation of the MainstreamBIO M&E framework.

The main key objectives and sub-objectives of the M&E framework are summarised in Table 1.

Table 1: Key project Objectives

O1. Enhance cooperation of key players and knowledge holders for bio-based innovations in rural areas

  a) Stakeholders' engagement through MIPs
  b) Cooperation in innovative business models through MAPs
  c) Development of connections for targeted stakeholders

O2. Support innovators to accelerate the development of marketable products and services and improve market penetration of bio-based solutions

a) Adoption of small-scale bio-based solutions
b) Delivery and iterative improvement of MainstreamBIO innovation services
c) Delivery and iterative improvement of MainstreamBIO toolkit
d) Support of scale-up and transferability

O3. Deploy existing knowledge to increase number of implemented bio-based solutions in rural areas

O4. Build awareness and knowledge on bioeconomy

A description of what each objective is referring to can be found in the deliverable D4.1 "Report on evaluation of MIP performance – first round".

2.2 Monitoring framework

The MainstreamBIO M&E framework aims to capture not only our performance in terms of meeting the objectives of our support measures, but also their impact employing clear KPIs. A set of indicators (100 in total) was defined and employed to measure the progress towards each of the MainstreamBIO objectives. In this context, the MainstreamBIO Monitoring framework includes the following methods to ensure sufficient data collection at all project levels, across all MIP activities.

Table 2: Summary of data collection methods and tools

Method #	Project Activity	Tool	Timing	Data Processor
M1M	Operation of MIPs	Stakeholders' matrix	Continuous update	T1.1 Leader (Q-PLAN)
M2R	Operation of MIPs	Short report	Every 6 months	T4.1 Leader (Q-PLAN)
M3Q	Operation of MIPs	Feedback questionnaire	Ad hoc	MIP leaders
M4Q	Capacity Building workshops	Feedback questionnaire	After every workshop	MIP leaders
M5Q	Networking events	Feedback questionnaire	After every event	MIP leaders
M6Q	Scale-up workshops	Feedback questionnaire	After every Workshop	MIP leaders
M7Q	Mutual learning workshops	Feedback questionnaire	After every Workshop	MIP leaders

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Method #	Project Activity	Tool	Timing	Data Processor
M8Q	Policy	Feedback questionnaire	After Policy Roundtable	T4.4 Leader (IUNG)
M9Q	Business Model Validation	Feedback Questionnaire	After M18	T5.4 Leader (INNV)
M10Q	Awareness raising and education	Feedback questionnaire	After every event	MIP leaders and MTU
M11Q	Innovation support services	Feedback questionnaire	After the provision of each service	Service Providers & MIP leaders
M12D	Coordination	Reporting templates	Every 6 months	T4.1 leader (Q-PLAN)
M13D	Toolkit	Google Analytics Bubbleio	Ad hoc	T2.5 leader (DRAXIS)

During the 1st Round, valuable feedback was gathered through the questionnaires that were used, resulting in specific recommendations towards optimising our monitoring framework. These recommendations were considered in the 2nd Round, refining and optimising our tools to better capture the results of our project and evaluate their impact and performance.

Data collection through the Monitoring framework includes also collection of personal data, therefore the MainstreamBIO consortium handles them with due diligence and according to its **Data Management Plan guidelines (D6.4)**. Particularly, they take any steps required to make the data collected/generated **FAIR** (Findable, Accessible, Interoperable, and Reusable) and adopt measures to comply with the **Art. 5 GDPR principles** relating to the processing of personal data[2].

2.3 Assessment and Evaluation framework

The MainstreamBIO Assessment and Evaluation framework is set to process the data and information collected by the MainstreamBIO Monitoring framework. Not only it reviews the data with the purpose to improve the current performance, but it also judges the performance by measuring the performance based on existing standards. To this end, the purposes of the MainstreamBIO Assessment and Evaluation framework are:

- Identifying the strong and weak parts of our approach, inferring the success and prohibiting factors and ultimately, improving the MainstreamBIO activities.
- Understanding the specificities of each MIP, its strengths and weaknesses and ultimately, improving their replication potential.
- Improve our innovation support services and the digital Toolkit.

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[2] Intersoft consulting. Principles relating to processing of personal data. Available at https://gdpr-info.eu/art-5-gdpr/

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- Capture our performance in meeting the objectives of our support measures and their impact.
- Providing ourselves with a sense of success or failure.

Three techniques have been selected to process the collected data and other information for assessment and evaluation purposes:

1. **Comparison with the Targets**: The targets are set by the Grant Agreement (GA) or the MIP leaders, or they are based on previous research. Particular attention is paid to making the target values of all indicators S.M.A.R.T. (specific, measurable, achievable, relevant, time-bound)
2. **Comparison with the values of the other MIPs**: Comparison of values among MIPs can shed more light on their differences.
3. **Results compared to European / Worldwide trends**: It aims to investigate whether the results achieved by the MIPs during the MainstreamBIO project are aligned with the results commonly achieved in Europe and worldwide.

A detailed timeline of the main MainstreamBIO monitoring and evaluation activities is highlighted in Figure 2.
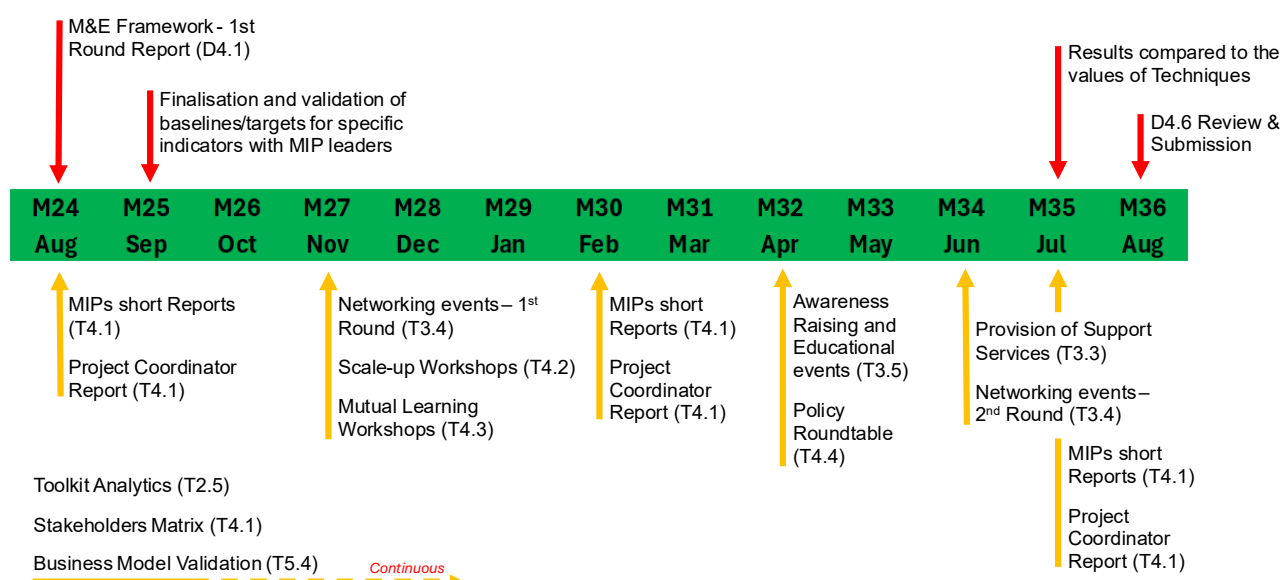
Figure 2: Timeline of the MainstreamBIO M&E activities

3. 2nd Virtual Validation workshop

Within the frame of Task 4.1, a **2nd Virtual Validation workshop** was organised by Q-PLAN, aiming to **validate the findings and results of the 2nd Innovation support round**. The workshop took place on 7th of July 2025, online, using MS Teams. During the workshop, 4 out of 6 Advisory Board (AB) members actively participated, sharing their feedback on the project's results and making suggestions for next steps that could increase the impact of MainstreamBIO. The two AB members who were unable to participate in the 2nd Virtual Validation Workshop, were directly contacted through email, receiving the full presentation, to provide their feedback on the project's results.

Prior to the workshop, the results were shared for review within the AB members, to obtain a preliminary picture of the ongoing results and better prepare for constructive discussions. The workshop's agenda included a brief retrospective of MainstreamBIO's M&E framework, a detailed presentation of the project's results and a validation exercise through open discussion. During the open discussion, the AB members were encouraged to reflect on the information they received during the presentation and discuss the matters that made an impression on them, ask questions, and share their feedback.

Particularly, during the validation exercise, the AB members with the guidance of Q-PLAN, reflected on the following questions:

- Are there any results that seem weird / unrealistic?
- How could we engage the Civil Society stakeholders more efficiently?
- Are there any targeted women-oriented incentives to increase the female involvement on bioeconomy solutions?

Several key observations and insights came to light through the discussion, providing valuable insights into the results from the 2nd Innovation Support round. The general feedback received from the AB members is that the project's results are considered valid and realistic, as they reflect broader trends in the Bioeconomy sector across Europe.
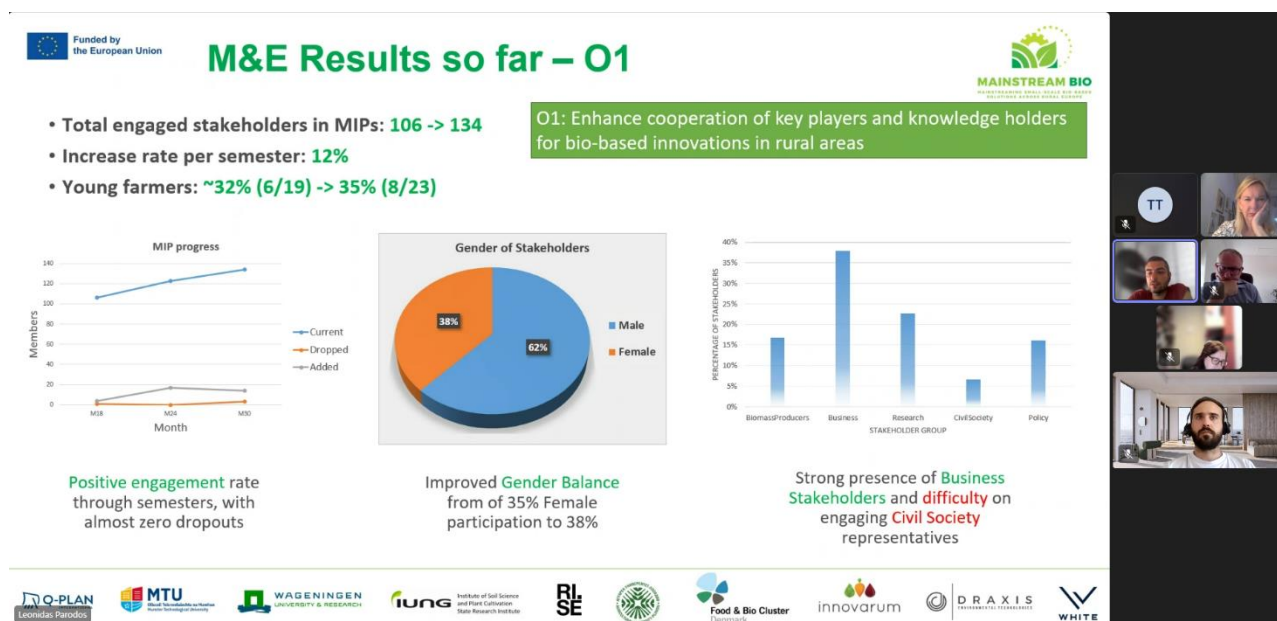
Figure 3: 2nd Virtual Validation workshop, 7 July 2025

The discussions were mainly focused on engaging Civil Society in Bioeconomy. The low participation of citizens in bioeconomy does not simply reflect the MainstreamBIO MIPs, but a broader problem. The AB highlighted the challenges of messaging and attracting the civil society in the sector and relevant activities, where there should be a clear message in simple language of what bioeconomy means, what it addresses, and which part of civil society should be engaged (e.g., ecologists). Additionally, they stressed that we may need to focus more on NGOs, in terms of civil society participation, through specific related topics.

Another important issue that was discussed was the female participation in MainstreamBIO activities and in general in bioeconomy. It is a fact, as also emerged from the results, that the female representation in the rural sector is low. In this context, the AB members emphasized to foster and encourage female participation across all stakeholder groups to achieve gender balance, but mainly through engaging civil society. They noted that the involvement of civil society, such as local associations, NGOs or community groups, can create more inclusive environments, serving as a first step to better reach and involve women in rural bio-based activities.

The discussion moved to the scaling readiness level of regions from both business and technological perspectives. The AB stressed that active engagement and strong cooperation among key stakeholders, such as through joint ventures, are essential to overcome fragmentation and drive the successful scaling of small-scale bio-based solutions. Moreover, they highlighted the importance of attracting young farmers through proper wording and tangible results, as they are those who will shape and guide the future of rural sector in Europe.

The validation of MainstreamBIO results closed with some general remarks. The AB indicated that a detailed analysis and comparison among MIPs, if possible, could bring more value to identify the regions that need more effort to advance in terms of mainstreaming bioeconomy. On top of this, the good practices from the advanced MIPs could help other countries to improve their rural activities. Additionally, the topics of the cases that MainstreamBIO partners supported along with some statistics are very interesting and useful to be published, as well as to potentially inform European policy measures. Finally, the AB members noted that a great job has been done in the project, and the important results should be thoroughly disseminated and, even better, used and/or further analysed by other EU initiatives and funded projects.

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4. Analytical results of Evaluation and Impact Assessment

This section addresses an **evaluation of the project per M&E framework objective** (O), offering a comprehensive analysis of the overall performance and outcomes of the MIPs and projects' activities. Additionally, this section delves into meaningful insights for the seven MIPs, aiding in a more in-depth understanding of the results per MIP.

The data assessed came from several project activities and more specifically:

- Capacity building workshops
- Awareness raising and education campaigns
- Innovation support services
- MIP Operation
- Mutual Learning (ML) workshops
- Networking Events
- Policy Roundtable
- Regional Scale-up workshops
- Toolkit
- Coordination

To collect the data from the abovementioned project activities, 13 data collection methods were used to measure the selected indicators, in particular: Stakeholder matrix along with short reports and questionnaires were used for the MIP Operation, Google analytics and Bubbleio for the Toolkit, Reporting templates for the Coordination, and feedback Questionnaires for the rest of the activities.

To effectively evaluate the project results, baseline targets for each indicator, that were not defined in the GA, were initially proposed based on estimations derived from relevant literature and prior project experience. They enable measurement of the progress and impact of MainstreamBIO activities as well as support accountability, creating a fair way to assess whether performance goals were realistic and achieved. These preliminary targets were shared with all MainstreamBIO partners, who reviewed and validated them by drawing on their expertise and practical experience related to the project's activities. Following this collaborative review process, the baseline targets were refined and finalised to ensure they were both realistic and context-specific across the different MIPs.

Since MainstreamBIO indicators start from a zero baseline, a 60%-70% target is adopted in several indicators as an ambitious yet realistic benchmark. It reflects a level of achievement high enough to demonstrate meaningful progress, while remaining attainable given the diversity of rural contexts and the external factors influencing stakeholder engagement. For the indicators concerning the Toolkit, scores above 70% are considered ideal, since most of the responders indicate their satisfaction[3].

This section delves into the meticulous process of measuring the project's impact, shedding light on its significance and the extent to which it has contributed to its intended goals and objectives.

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[3] CSAT: Definition, Calculation & 2025 Benchmarks

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4.1 Enhance cooperation of key players and knowledge holders for bio-based innovations in rural areas (O1)

4.1.1 *Stakeholders' engagement through MIPs (O1a)*

To assess progress towards sub-objective O1a, a total of 18 indicators were used. Data for these indicators were collected through the Operation of MIPs, using the (i) Stakeholder Matrix, (ii) MIP Short Reports every 6 months, and (iii) Feedback Questionnaire for MIP members. The following table presents the consolidated results of these indicators, highlighting the extent to which the sub-objective has been achieved.

Table 3: Progress towards O1a sub-objective

Identifier	Activity	Indicator	Baseline Target	Progress
O1a1.1	Operation of MIP	Number of stakeholders engaged in each MIP (mean number from all MIPs)	15 - 20	20
O1a1.2	Operation of MIP	Number of stakeholders participating in interviews of WP1	≥ 70	70
O1a1.3	Operation of MIP	Percentage of biomass producers / total stakeholders per MIP	20%	16%
O1a1.4	Operation of MIP	Percentage of business / total stakeholders per MIP	20%	39%
O1a1.5	Operation of MIP	Percentage of academics and researchers / total stakeholders per MIP	20%	22%
O1a1.6	Operation of MIP	Percentage of [Government/policymaker/public authority] / total stakeholders per MIP	20%	17%
O1a1.7	Operation of MIP	Percentage of civil society representatives / total stakeholders per MIP	20%	6%
O1a1.8	Operation of MIP	Percentage of women / total number of stakeholders per MIP	40%	38%
O1a1.9	Operation of MIP	Percentage of young farmers (<40 years of age) / total farmers per MIP	> 15%	45%
O1a1.10	Operation of MIP	Percentage of MIP members that dropped out before the project timeline/ total number of MIP members	≤ 10%	3,57%
O1a1.11	Operation of MIP	Increase rate of MIPs members / MIP	> 10%	9,72%

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Identifier	Activity	Indicator	Baseline Target	Progress
O1a1.12	Operation of MIP	Number of MIPs members believing that the involvement and contribution of farmers to MainstreamBIO activities has been significant / total number of MIPs members	> 70%	52,83%
O1a1.13	Operation of MIP	Number of MIPs members who reported that the activities of the MIP took place in a gender-equal environment / Total number of MIPs members	> 70%	81,33%
O1a1.14	Operation of MIP	Number of MIPs members who reported being satisfied by the experience of participating in MainstreamBIO MIPs / Total number of MIPs members	> 70%	77,36%
O1a1.15	Operation of MIP	Number of MIPs members believing that the synthesis of MIP was adequately diverse to allow various opinions to be considered and fruitful synergies to be developed / Total number of MIPs members	>70%	69,81%
O1a1.16	Operation of MIP	Number of MIPs members who reported they got involved in MainstreamBIO MIPs through a contact that is already partaking in the MainstreamBIO activities / Total number of MIPs members	> 20%	33,96%
O1a1.17	Operation of MIP	Number of MIPs members who reported that their participation in MIPs served well their business benefits / Total number of MIPs members	> 25%	22,64%
O1a1.18	Operation of MIP	Number of MIPs members who reported that their participation in MIPs did not hinder freedom of research activities / Total number of MIPs members	> 70%	79,25%

A further analysis of selected key indicators that are particularly relevant to the project's objectives is presented below. This analysis highlights notable trends, regional variations, and potential implications based on the collected data.
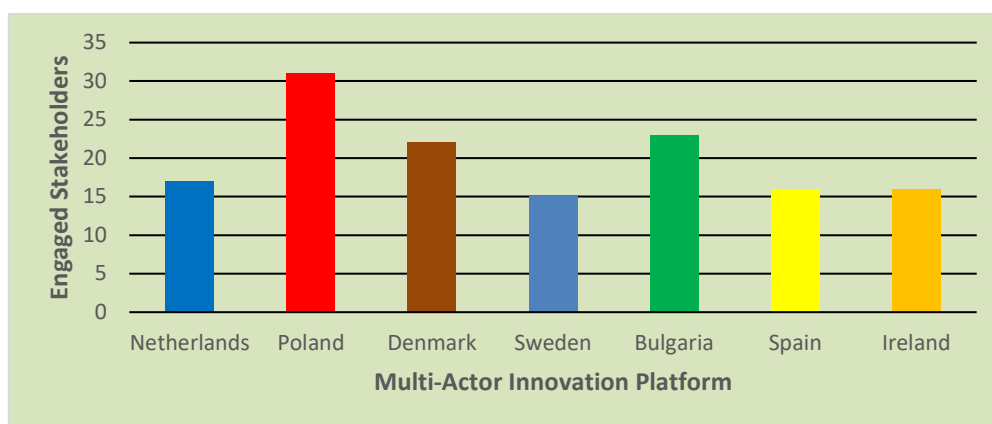
Figure 4: Number of stakeholders engaged in each MainstreamBIO MIP

One of the key indicators monitored was the number of stakeholders actively engaged in each MIP. A total of 140 stakeholders were involved across the seven MIPs, exceeding the overall target set. The distribution of MIP members reflects a strong level of engagement across all regions, with Poland (31 members), Bulgaria (23), and Denmark (22) hosting the largest participation. The remaining MIPs members were distributed as follows: the Netherlands (17), Spain (16), Sweden (15), and Ireland (16). Between the two Innovation Rounds, an increase rate of around 10% per semester was achieved, resulting in 34 more members (106 → 140). On top of that, a drop out rate of less than 4% per semester was observed, showcasing the perceived continuous benefits of these platforms for regional rural stakeholders.
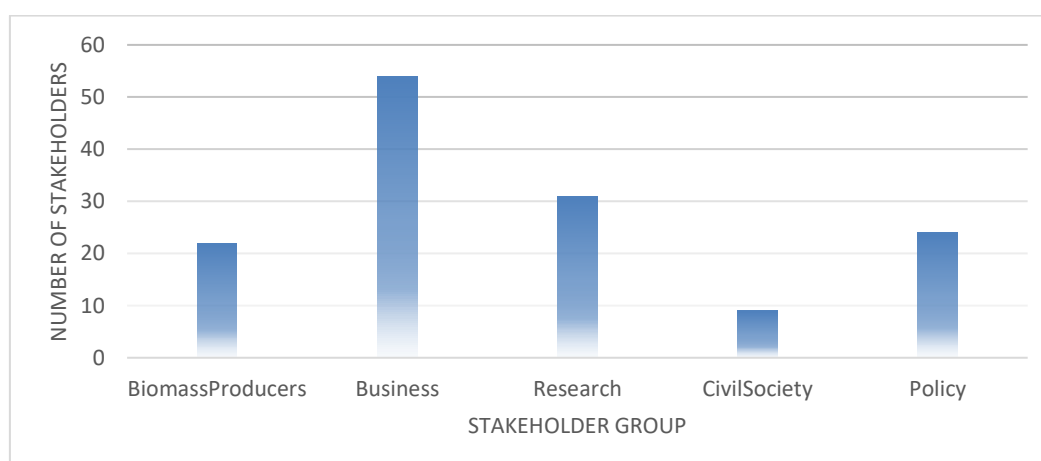
Figure 5: Composition of MIP members

The composition of the MIPs was also monitored to ensure balanced representation across the targeted stakeholder groups. Out of the 140 total members, the largest group consisted of business stakeholders (54), followed by researchers and academics (31), policymakers and public authorities (24), and biomass producers (22). Notably, civil society actors were underrepresented, with only 9 members engaged across all MIPs. This limited participation reflects a broader challenge observed at the European level, where civil society involvement in bioeconomy-related activities remains low.

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Gender balance within the MIPs showed a positive trend during the second round. Female participation reached 38%, marking an improvement from 35% recorded in the first round. This upward shift indicates growing inclusiveness and efforts made to involve more women in regional bioeconomy initiatives, although continued efforts will be needed to maintain and further improve this trajectory in future activities.
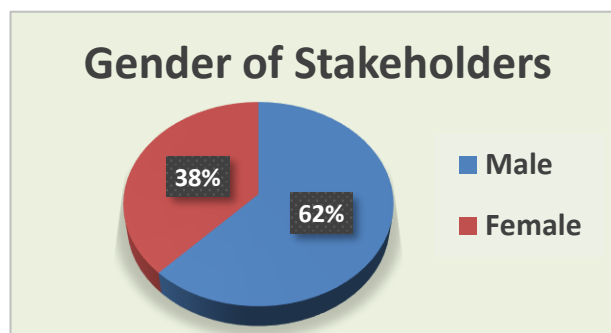
Figure 6: Gender balance across MIPs

In parallel, the engagement of young farmers emerged as a particularly encouraging result. Out of the 22 farmers involved in the MIPs, around 45% were classified as young farmers (<40 years old) — a significantly higher proportion than the European average (11,9% in 2020 according to EUROSTAT[4]). This strong representation highlights the relevance and attractiveness of the MainstreamBIO approach to the next generation of agricultural actors and reinforces the project's potential to foster long-term transformation in the bio-based sector.

Figure 7: Satisfaction of MIP members in participating in MainstreamBIO MIPs

Stakeholder satisfaction with participation in the MainstreamBIO MIPs was assessed to evaluate the perceived value and relevance of the regional platforms. The results indicate a high level of satisfaction overall: 53% of participants rated their experience as "Very" satisfactory and 26% as "Extremely" satisfactory, while 19% indicated a "Moderate" level of satisfaction. Only 2% of the respondents selected "Slightly". No respondents selected "Not at all" or "Don't know", which further reinforces the generally positive reception of the MIPs. These findings suggest that the MIPs effectively engaged stakeholders and provided meaningful opportunities for collaboration and knowledge exchange.

4.1.2 *Cooperation in innovative business models through MAPs (O1b)*

To assess progress towards sub-objective O1b, a total of 12 indicators were used. Data for these indicators were collected through the Operation of MIPs and the provision of Innovation Support Services, using the (i) MIP Short Reports every 6 months, and (ii) Feedback Questionnaire for the supported cases. The following table presents the consolidated results of these indicators, highlighting the extent to which the sub-objective has been achieved.

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[4] Farmers and the agricultural labour force - statistics

Table 4: Progress towards O1b sub-objective

Identifier	Activity	Indicator	Baseline Target	Progress
O1b1.1	Operation of MIP	Level of trust among MIPs members / MIP	> Good	6 Good - 1 Neutral
O1b1.2	Operation of MIP	Number of MIPs members willing to take bioeconomy related actions / total number of MIPs members	>70%	74.29%
O1b1.3	Operation of MIP	Level of presence of prime movers / MIP	> 30%	100% (IE), 65% (NL), 32% (PL), 43%(BG), 23% (DK), 93% (SE), 25% (ES)
O1b2.1	Innovation support services	Number of cases supported	35	44
O1b2.2	Innovation support services	Percentage of cases farmers / Total supported cases	> 20%	30%
O1b2.3	Innovation support services	Number of applicants in MainstreamBIO open calls- first round	> 25	36
O1b2.4	Innovation support services	Number of applicants in MainstreamBIO open calls- second round	> 25	26
O1b2.5	Innovation support services	Number of cases who reported a good collaboration in their project / Total supported cases	> 70%	79%
O1b2.6	Innovation support services	Number of cases who reported being satisfied by the experience of being supported by MainstreamBIO services/ Total supported cases	> 70%	74%
O1b2.7	Innovation support services	Number of cases who reported that they would like to receive additional services from MainstreamBIO	> 40%	50%

Table 4: Progress towards O1b sub-objective

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Identifier	Activity	Indicator	Baseline Target	Progress
O1b2.8	Innovation support services	Percentage of cases women / Total supported cases	> 40%	45%
O1b2.9	Innovation support services	Number of cases who reported that their participation in MainstreamBIO activities improved their income diversification/ Total supported cases	> 40%	41%

In general, the perceived level of trust among MIP members was rated positively in 6 out of the 7 regions, with MIPs reporting a "Good" level of trust, while 1 MIP indicated a "Neutral" stance. This strong foundation of trust is essential for the long-term sustainability of MIPs. Moreover, the willingness of MIP members to take bioeconomy-related actions was notably high, with 74.29% expressing intent to engage further. This level of commitment reflects the motivational impact of the project's support services and activities, and the readiness of stakeholders to contribute to the advancement of sustainable bioeconomy initiatives in their regions.

Figure 8: MAPs who reported being satisfied by the experience of being supported by MainstreamBIO services

Throughout MainstreamBIO, tailored innovation support services to 44 cases were provided. Feedback from the supported cases highlights a high level of satisfaction, with 74% indicating they were "Very Much" satisfied with their overall experience. This positive reception is further reflected in the sustained interest in the services, as 50% of the supported cases of the 1st Innovation Round expressed a desire to receive additional support during the 2nd Innovation Round.
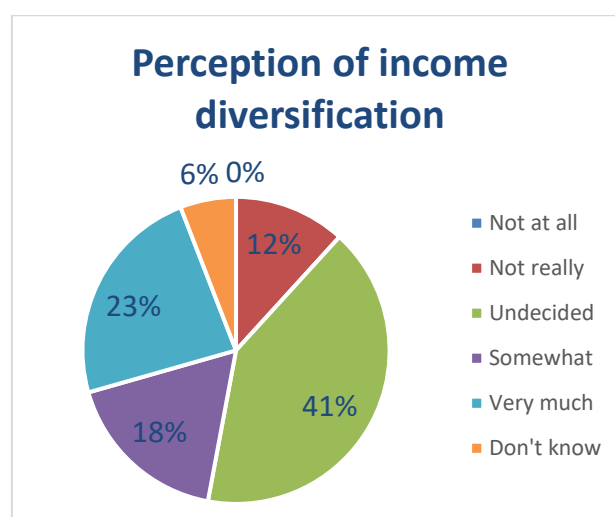
Figure 9: MAPs who reported that their participation in MainstreamBIO activities improved their income diversification

Moreover, the services delivered were perceived to have tangible benefits, with 41% of the supported cases reporting that their participation contributed to income diversification, either "Somewhat" or "Very Much". These results underline the relevance, quality, and practical value of the MainstreamBIO innovation support services in empowering local actors and mainstreaming small-scale bio-based solutions at the regional level.

4.1.3 *Development of connections for targeted stakeholders (O1c)*

To assess progress towards sub-objective O1c, a total of 9 indicators were used. Data for these indicators were collected through the Operation of MIPs, Capacity Building workshops, and Networking events, using the (i) Feedback Questionnaire for MIP members, and (ii) Feedback Questionnaire for participants of the Capacity building workshops and Networking events. The following table presents the consolidated results of these indicators, highlighting the extent to which the sub-objective has been achieved.

Table 5: Progress towards O1c sub-objective

Identifier	Activity	Indicator	Baseline Target	Progress
O1c1.1	Operation of MIP	Number of stakeholders participating in MainstreamBIO co-creation workshops	10-15 per MIP	IE (17), NL (13), PL (12), BG (15), DK (12), SE (12), ES (11)
O1c1.2	Operation of MIP	Number of MIPs members not previously engaged in bioeconomy or rural local networks / Total number of MIPs members	20% - 30%	22.64%

Identifier	Activity	Indicator	Baseline Target	Progress
O1c1.3	Operation of MIP	Number of MIPs members reporting that participating in MIPs events has improved their connections with agricultural, business and research stakeholders / Total number of MIPs members	> 60%	64.15%
O1c2.1	Capacity building workshops	Number of stakeholders participating in MainstreamBIO capacity building workshops	10-15 per MIP	IE (15), NL (13), PL (51), BG (15), DK (17), SE (12), ES (37)
O1c3.1	Networking events	Number of participants in MainstreamBIO networking events- first round	15-20 per MIP	IE (20), NL (50), PL (30), BG (15), DK (16), SE (35), ES (14)
O1c3.2	Networking events	Number of participants in MainstreamBIO networking events- second round	15-20 per MIP	IE (24), NL (50), PL (32), BG (14), DK (41), SE (10), ES (18)
O1c3.3	Networking events	Number of participants in MainstreamBIO demo days	15-20 per MIP	IE (24), NL (50), PL (32), BG (14), DK (41), SE (35), ES (14)
O1c3.4	Networking events	Number of participants in MainstreamBIO networking events reporting that their participation facilitated connections with possible partners / Total number of participants	> 50%	45.11%

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Identifier	Activity	Indicator	Baseline Target	Progress
O1c3.5	Networking events	Number of participants in MainstreamBIO networking events and demo days reporting that the show cases inspired them to get engaged in small-scale bioeconomy projects ventures / Total number of participants	> 60%	60.15%

An important goal of MainstreamBIO was to expand the reach of small-scale bio-based solutions to key interested stakeholders. Notably, 26% of MIP members reported that they had not been previously engaged in bioeconomy or rural local networks prior to their involvement in the project. This indicates that MainstreamBIO has been effective in attracting new actors and broadening the base of stakeholders contributing to regional bio-based innovation.
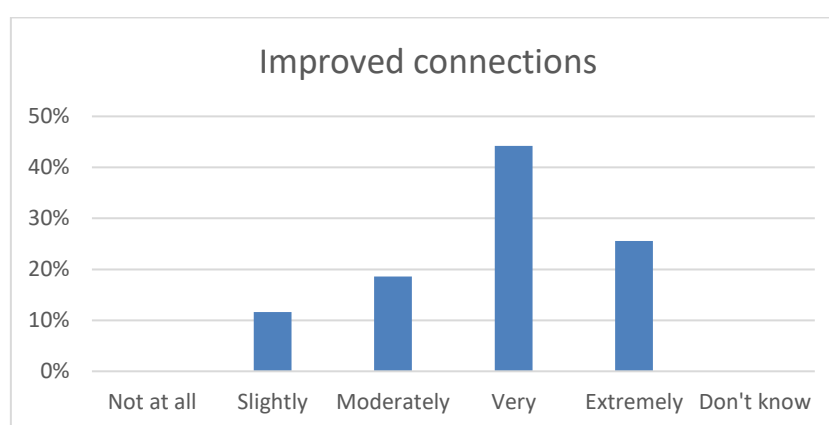
Figure 10: MIPs members reporting that participating in MIPs events has improved their connections with agricultural, business and research stakeholders

Additionally, 70% of MIP members stated that participation in MIP events significantly enhanced their connections with other stakeholders within agriculture, business, and research as they reported their experience as "Very" or "Extremely" impactful in terms of networking. These findings confirm that the project has helped both deepen existing relationships and successfully bring new actors into the general bioeconomy conversation.
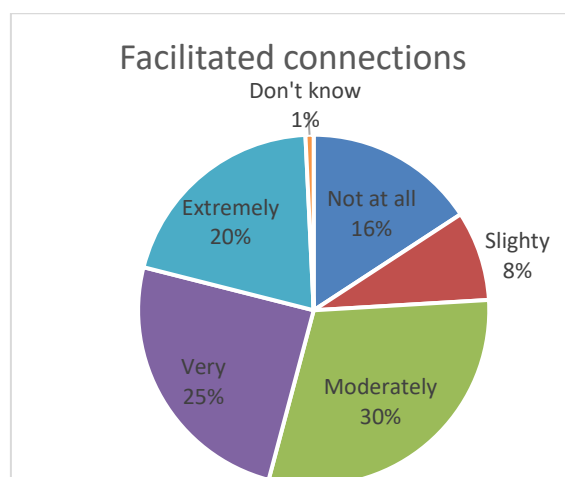
Figure 11: Participants in MainstreamBIO networking events reporting that their participation facilitated connections with possible partners

Moreover, MainstreamBIO's networking events and demo days attracted a total number of 366 stakeholders. When asked about the value of their participation, almost 1 out of 2 attendees (45%) reported that the events facilitated new connections with potential partners, highlighting the role of these activities in strengthening regional collaboration.
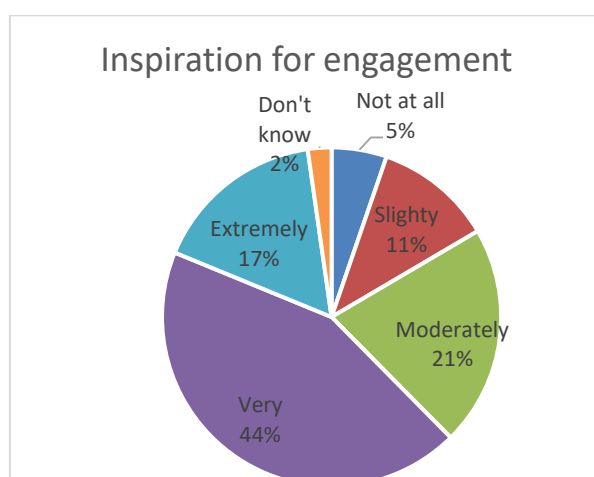
Figure 12: Participants in MainstreamBIO networking events and demo days reporting that the show cases inspired them to get engaged in small-scale bioeconomy projects ventures

Finally, around 60% of participants indicated that the events served as a strong source of inspiration to get involved in and support bioeconomy.

4.2 Support innovators to accelerate the development of marketable products and services and improve market penetration of bio-based solutions (O2)

4.2.1 *Adoption of small-scale biobased solutions (O2a)*

To assess progress towards sub-objective O2a, a total of 9 indicators were used. Data for these indicators were collected through the Coordination and provision of Innovation Support Services, using the (i) Reporting templates, and (ii) Feedback Questionnaire for the supported cases. The following table presents the consolidated results of these indicators, highlighting the extent to which the sub-objective has been achieved.

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Table 6: Progress towards O2a sub-objective

Identifier	Activity	Indicator	Baseline Target	Progress
O2a1.1	Coordination	Number of sustainable business model pathways co-created	35	44
O2a1.2	Coordination	Number of bio-based products or services accelerated	70	88
O2a1.3	Coordination	Increase in sales of bio-based products / services accelerated	> 10%	10.37%
O2a1.4	Coordination	Increase in income diversification	> 50%	19.58%
O2a1.5	Coordination	Number of farmers adopting better nutrient recycling practices	>140	160
O2a1.6	Coordination	Number of jobs created or safeguarded	210 - 350	110
O2a2.1	Innovation support services	Number of services / type delivered	5 per type	• Project design and development advice: 1 • Technology scouting: 6 • Scale-up advisory: 4 • Techno-economic analysis: 3 • Nutrient management and fertilization: 6 • Business model design and optimization: 9 • Market analysis: 11 • Business mentoring: 2 • Guidance in accessing funding: 3 • Matchmaking: 11 • Policy review: 2
O2a2.2	Innovation support services	Number of cases who reported that they were provided with sufficient support through	> 70%	85%

Table 6: Progress towards O2a sub-objective

Identifier	Activity	Indicator	Baseline Target	Progress
		MainstreamBIO services / Total supported cases		
O2a2.3	Innovation support services	Number of cases who reported that participating in MainstreamBIO cases and services improved their team-working skills / Total supported cases	> 60%	62%

To assess the anticipated economic benefits of MainstreamBIO's support services, stakeholders were asked to estimate projected increases in sales and income diversification. On average, stakeholders reported a projected 10.37% increase in sales of products/services accelerated through their participation in the project, suggesting a positive outlook on the market potential.
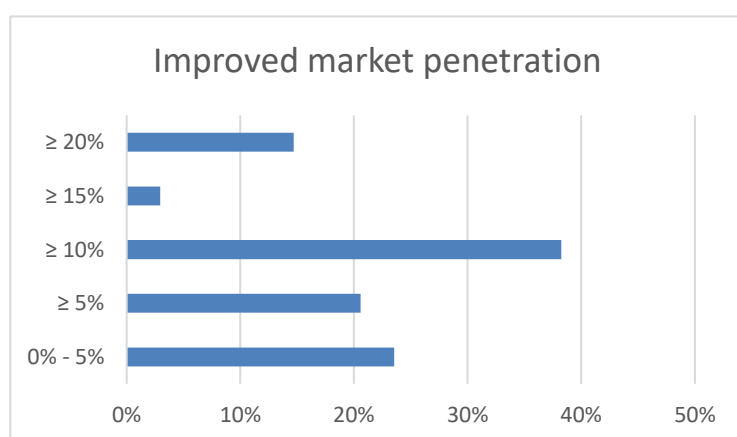
Figure 13: Projected increase in sales of bio-based products / services accelerated

Additionally, the mean projected increase in income diversification was 19.58%. While this figure reflects a meaningful economic shift, it falls short of the originally set baseline of 50%. The baseline was established under the assumption that increased exploitation of diverse biomass sources, and waste streams would translate into a broader diversification of income across the supported cases in the near future. The deviation may reflect the immature level of solutions along with a more cautious estimation by participants and the longer time horizon required for such diversification to fully materialise in practice.
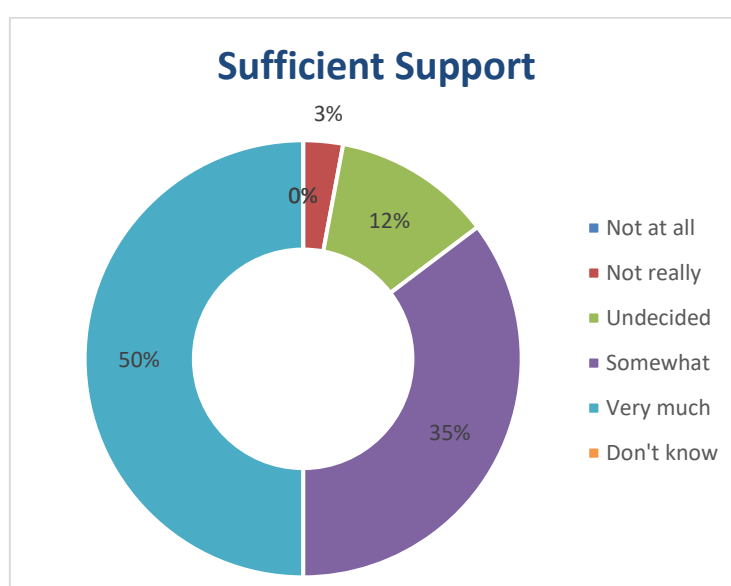
Figure 14: Level of sufficient support provision

The adequacy of support provided through MainstreamBIO services was evaluated by gathering feedback from the supported MAPs. Half of the respondents (50.00%) indicated that they were "Very Much" satisfied with the support received, while an additional 35.29% responded "Somewhat", suggesting that the majority found the services valuable and relevant to their needs. A smaller share remained "Undecided" (11.76%) or responded "Not Really" (2.94%), while no participants selected "Not at all" or "Don't know". These results indicate a generally high level of satisfaction, while also pointing out a small gap for further improvements on the service provision.

4.2.2 *Delivery and iterative improvement of MainstreamBIO innovation services (O2b)*

To assess progress towards sub-objective O2b, a total of 5 indicators were used. Data for these indicators were collected through the provision of Innovation Support Services, using the Feedback Questionnaire for the supported cases. The following table presents the consolidated results of these indicators, highlighting the extent to which the sub-objective has been achieved.

Table 7: Progress towards O2b sub-objective

Identifier	Activity	Indicator	Baseline Target	Progress
O2b1.1	Innovation support services	Number of business support services delivered	40% - 60%	66%
O2b1.2	Innovation support services	Number of technical support services delivered	40% - 60%	34%
O2b1.3	Innovation support services	Number of innovation support services in total delivered	50	58
O2b1.4	Innovation support services	Number of innovators supported to deploy and/or scale up small-scale bio-based solutions	175 - 210	378
O2b1.5	Innovation support services	Number of MIP members believing that MainstreamBIO services and toolkit promoted the engagement of farmers in bioeconomy/ Total number of MIPs members	> 60%	60.47%

During MainstreamBIO, 58 innovation support services were delivered to the supported cases, with most of them asking for business support (66%), while the technical ones had been requested from 34% of the supported cases. A remarkable result is that 378 innovators were supported through the service provision to deploy or scale up their small-scale bio-based solutions.
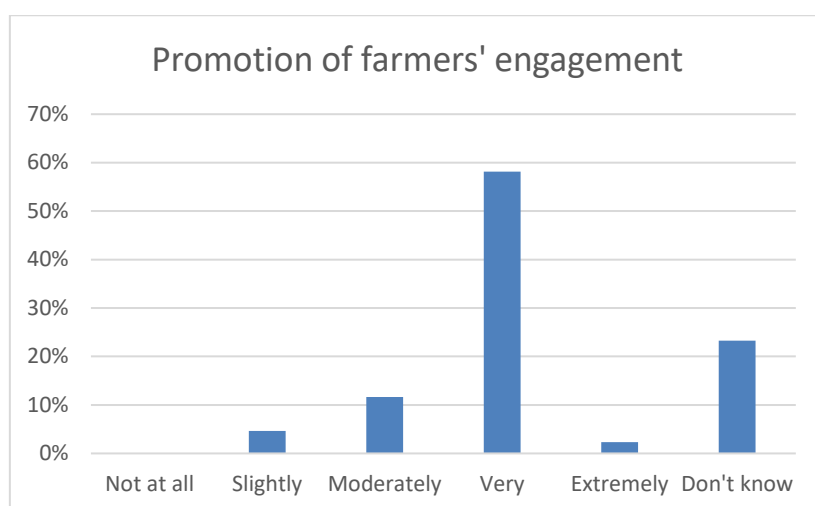
Figure 15: MIP members reported that MainstreamBIO services and digital toolkit promoted the engagement of farmers in bioeconomy

Finally, around 60% MIP members ("Very" & "Extremely") reported that the provision of innovation support services along with the MainstreamBIO Digital toolkit and its functionalities promoted the engagement of farmers in bioeconomy and small-scale bio-based solutions. Almost 11.5% of participants were "Undecided" and 4.5% indicated a "Slight" promotion, while the remaining 24% voted "Don't know".

4.2.3 *Delivery and iterative improvement of MainstreamBIO toolkit (O2c)*

To assess progress towards sub-objective O2c, a total of 13 indicators were used. Data for these indicators were collected through the operation of Digital Toolkit and Capacity Building workshops, using the (i) Google Analytics and Bubbleio, and (ii) Feedback Questionnaire for the participants of the Capacity Building workshops. The following table presents the consolidated results of these indicators, highlighting the extent to which the sub-objective has been achieved.

Table 8: Progress towards O2c sub-objective

Identifier	Activity	Indicator	Baseline Target	Progress
O2c1.1	Toolkit	Number of participants who reported at least satisfactory feeling with the Toolkit in the Capacity Building workshops/ Number of participants	> 70%	67%
O2c1.2	Toolkit	Number of toolkit users who reported that the colour scheme contributed positively to the overall experience / number of participants	> 70%	73%
O2c1.3	Toolkit	Number of active users	> 1000	1367
O2c1.4	Toolkit	Number of registered users	> 100	85
O2c1.5	Toolkit	Number of downloads	> 1000	3247
O2c1.6	Toolkit	Number of participants who reported a good overall experience in using the Toolkit in the	> 70%	85%

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Identifier	Activity	Indicator	Baseline Target	Progress
		capacity building workshops / Number of participants		
O2c1.7	Toolkit	Number of participants who reported that were able to easily find all the information there were looking for in the Toolkit in the capacity building workshops / Number of participants	> 70%	57%
O2c1.8	Toolkit	Number of participants who reported that the menu and the navigation structure were clear and easy to understand in the Toolkit in the capacity building workshops / Number of participants	> 70%	58%
O2c1.9	Toolkit	Number of participants who reported that the Toolkit was visually appealing in the capacity building workshops / Number of participants	> 70%	72%
O2c1.10	Toolkit	Number of participants who reported that the overall design of the Toolkit was good in the capacity building workshops / Number of participants	> 70%	78%
O2c1.11	Toolkit	Number of participants who reported that the content of the Toolkit meets their expectations in the capacity building workshops / Number of participants	> 70%	70%
O2c1.12	Toolkit	Number of participants who reported that they encounter challenges in navigating the Toolkit in the capacity building workshops / Number of participants	< 30%	9%
O2c1.13	Toolkit	Number of participants who reported delays or errors in accessing different pages of the Toolkit in the capacity building workshops / Number of participants	< 20%	8%

The MainstreamBIO digital toolkit played a key role in supporting stakeholders throughout the project. During the capacity building workshops, the participants' feedback revealed overall positive perceptions of the toolkit's performance and usability. 85% of participants reported a good overall experience using the toolkit, and 67% expressed at least a satisfactory feeling.

Overall experience with the Toolkit
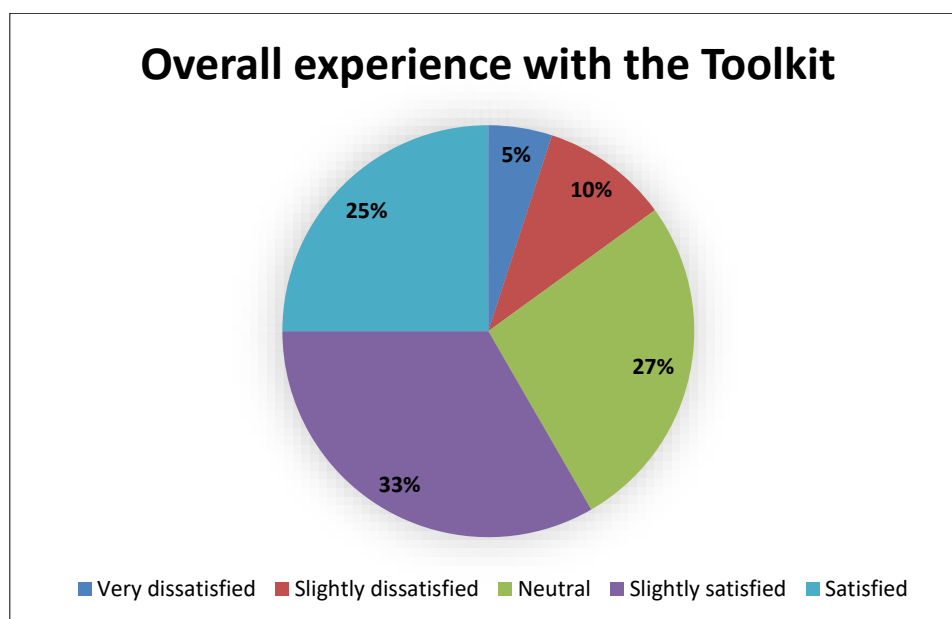
Figure 16: Participants' overall experience using the MainstreamBIO Digital Toolkit

Regarding specific aspects, 78% found the design to be good, and 70% felt that the content met their expectations. However, only 58% of participants indicated that the menu and navigation structure was clear and easy to follow. In response, several improvements were implemented during the last year of the project to enhance user navigation. In terms of technical performance, only 8% of users reported delays or errors while accessing different pages, and further refinements have been made to reduce such issues.
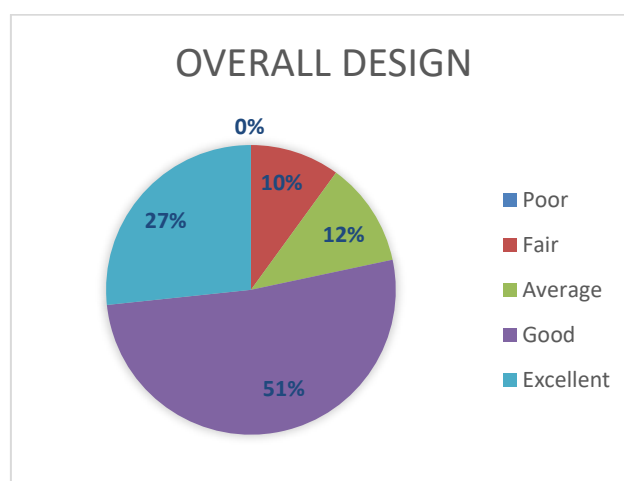
Figure 17: Participants' opinion regarding the overall design of the Toolkit
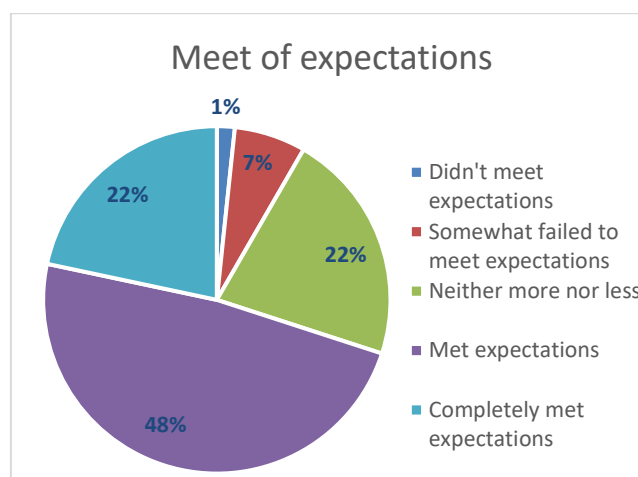
Figure 18: Participants reporting that the Toolkit meet their expectations

On the usage side, the toolkit demonstrated strong engagement, with 1,367 active users, 85 registered users, and an impressive 3,247 downloads. While the number of active users and downloads indicates broad outreach and interest, there is still room to increase the number of registered users through targeted promotion and engagement strategies.

4.2.4 *Support of scale-up and transferability (O2d)*

To assess progress towards sub-objective O2d, a total of 13 indicators were used. Data for these indicators were collected through the Coordination, Scale-up and Mutual Learning workshops as well as the Policy Roundtable, using the (i) Reporting templates, and (ii) Feedback Questionnaire for the participants of each event. The following table presents the consolidated results of these indicators, highlighting the extent to which the sub-objective has been achieved.

Table 9: Progress towards O2d sub-objective

Identifier	Activity	Indicator	Baseline Target	Progress
O2d1.1	Coordination	Stakeholders involved in exploitation/ validation though business model validation survey	50	58
O2d2.1	Scale-up workshops	Number of participants in MainstreamBIO regional scale-up workshops reporting that small-scale biobased solutions have a good scaling readiness in their region/ total number of participants	> 50%	51.65%
O2d2.2	Scale-up workshops	Number of participants in MainstreamBIO regional scale-up workshops reporting that case studies and success stories presented served as inspiration for their business activities/ Total number of participants	> 70%	73.63%
O2d2.3	Scale-up workshops	Number of participants in MainstreamBIO regional scale-up workshops reporting that realistic business models pathways have	> 60%	58.24%

Identifier	Activity	Indicator	Baseline Target	Progress
		been created, answering their needs and challenges/ Total number of participants		
O2d2.4	Scale-up workshops	Number of scale-up workshops participants	10 - 15 per MIP	IE (48), NL (17), PL (30), BG (11), DK (27), SE (9), ES (19)
O2d3.1	Mutual learning workshops	Number of participants in MainstreamBIO mutual learning workshops and missions	10 - 15 per MIP	IE (24), NL (17), PL (24), BG (11), DK (21), SE (16), ES (17)
O2d3.2	Mutual learning workshops	Number of external invitees (outside MainstreamBIO partnership) participating in MainstreamBIO mutual learning workshops and missions	5 per MIP	IE (5), NL (14), PL (9), BG (4), DK (13), SE (8), ES (2)
O2d3.3	Mutual learning workshops	Number of participants in mutual learning workshops reporting that the events enabled international contacts for them/ total number of participants	> 50%	61.18%
O2d3.4	Mutual learning workshops	Number of participants in mutual learning workshops reporting that field visits have been an inspiration for replicating showcased solutions/ total number of participants	> 60%	75.29%
O2d4.1	Policy	Number of policy makers attending MainstreamBIO policy roundtable	15	27
O2d4.2	Policy	Number of policy makers reporting that MainstreamBIO policy insights are relevant towards relevant EU policy objectives (EU Bioeconomy strategy, Green Deal, Long-	> 70%	72.73%

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Identifier	Activity	Indicator	Baseline Target	Progress
		Term Vision for Rural areas, new CAP) / total number of policy makers in policy roundtable		
O2d4.3	Policy	Number of policy makers reporting that MainstreamBIO policy insights facilitate actors from different backgrounds to find overlapping areas of interest / total number of policy makers in policy roundtable	> 70%	90.91%
O2d4.4	Policy	Number of policy makers reporting that MainstreamBIO policy insights contribute to filling any policy implementation gaps and challenges for mainstreaming bioeconomy in rural areas / / total number of policy makers in policy roundtable	> 70%	81.82%

MainstreamBIO organised regional scale-up workshops attracting a total of 161 participants across the seven MIPs, with the highest attendance in Ireland (48), followed by Poland (30), Denmark (27), Spain (19), the Netherlands (17), Bulgaria (11) and Sweden (9). Feedback from participants demonstrated that 73.63% of them reported that the presented examples were either "Very" or "Extremely" inspiring for their business activities.
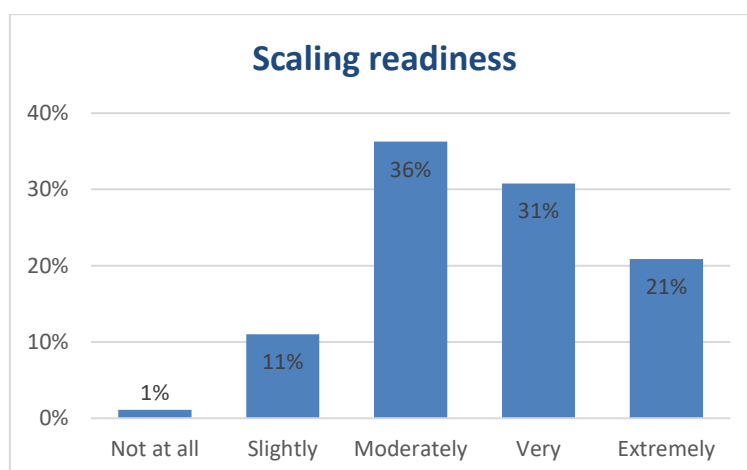
Figure 19: Participants' perception on scaling readiness of small-scale bio-based solutions in their regions

A key indicator focused on participants' perceptions of the scaling readiness of small-scale bio-based solutions within their regions. The majority expressed positive views, with 31% rating the readiness as "Very" and 21% as "Extremely". Another 36% assessed it as "Moderate", while only a small portion reported "Slightly" (11%) or "Not at all" (1%). These responses indicate that nearly three-quarters of participants (73%) perceive a solid foundation for scaling small-scale bio-based solutions locally.

MainstreamBIO's mutual learning workshops served as key opportunities for cross-regional knowledge exchange, practical learning, and inspiration through field visits. A total of 130 participants attended these workshops across the seven regions, with the highest attendance recorded in Ireland

and Poland (24 each), followed by Denmark (21), the Netherlands (17), Spain (17), Sweden (16), and Bulgaria (11).

Figure 20: Participants that were enabled to create international contacts

One of the core objectives was to facilitate international connections among stakeholders, and 61% of participants confirmed that the workshops enabled them to establish or strengthen such contacts.
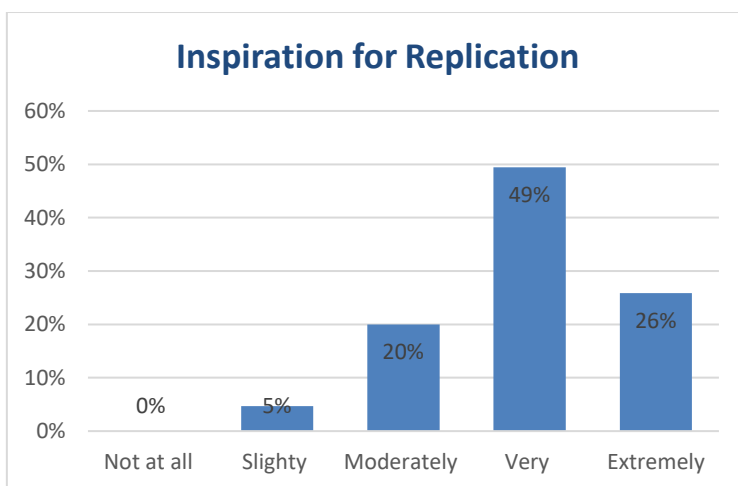
Figure 21: Participants inspired to replicate the showcased solutions

Additionally, the field visits embedded in the workshops proved highly impactful: 49% of participants found them "Very" inspiring for replicating showcased solutions, and 26% reported being "Extremely" inspired. A further 20% responded "Moderately", while only a small fraction selected "Slightly" (5%), and none reported "Not at all". These outcomes reflect the value of peer-to-peer learning and hands-on exposure to real-world examples in motivating stakeholders for replication.

The MainstreamBIO Policy Roundtable gathered 27 participants to discuss the project's findings and their alignment with EU policy objectives.

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Relevance with EU objectives
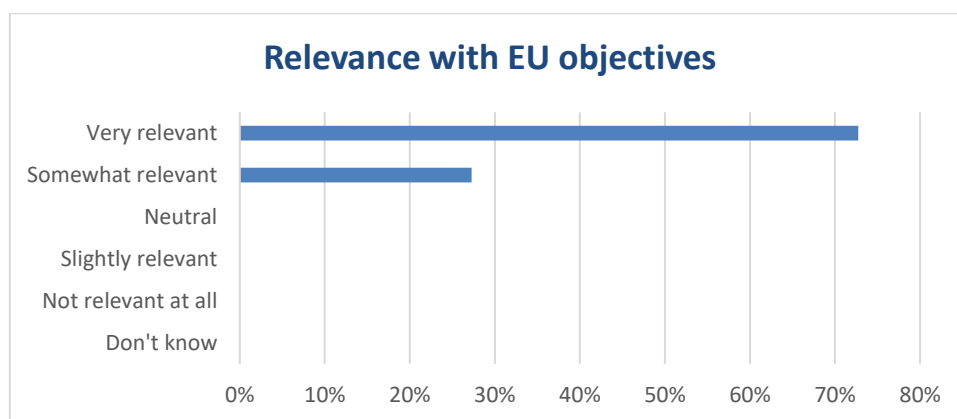
Figure 22: Participants' feedback on the relevance of MainstreamBIO policy insights with the EU objectives

Feedback from participants was overwhelmingly positive regarding the relevance and value of the policy insights shared. Notably, 73% of participants rated the insights as "Very relevant" to EU policy objectives, with the remaining 27% considering them "Somewhat relevant". None of the participants responded negatively or expressed uncertainty.

Gaps and Challenges
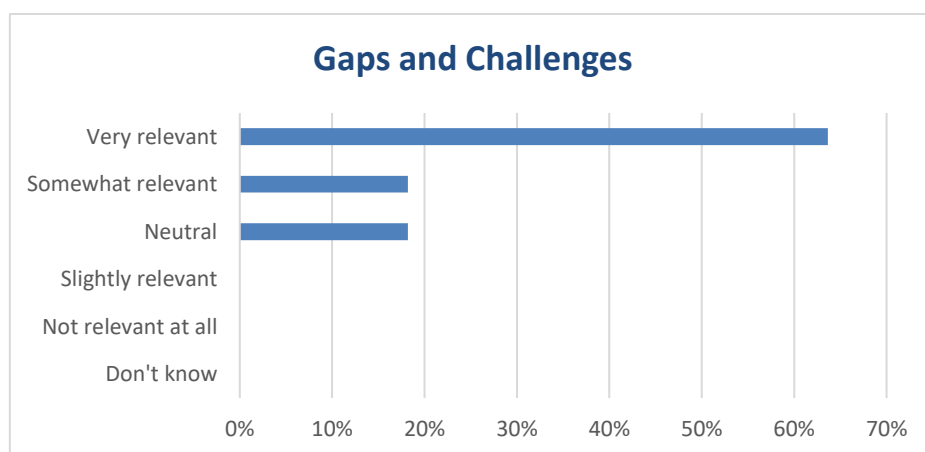
Figure 23: Participants' feedback on MainstreamBIO's policy insights potential to fill policy gaps and challenges

In terms of addressing policy implementation gaps and challenges related to mainstreaming the bioeconomy in rural areas, 64% of participants found the insights "Very relevant", 18% rated them as "Somewhat relevant", and another 18% remained "Neutral". These results suggest that the project's policy insights are valuable and can fuel the development and improvement of European and Regional policies.

4.3 Deploy existing knowledge to increase number of implemented bio-based solutions in rural areas (O3)

To assess progress towards objective O3, a total of 7 indicators were used. Data for these indicators were collected through the Coordination, using the Reporting templates. The following table presents the consolidated results of these indicators, highlighting the extent to which the sub-objective has been achieved.

Table 10: Progress towards O3 objective

Identifier	Activity	Indicator	Baseline Target	Progress
O3.1	Coordination	Number of bio-based technology solutions catalogued	> 15	16
O3.2	Coordination	Number of bio-based social innovations catalogued	> 15	19
O3.3	Coordination	Number of bio-based innovative business models catalogued	> 15	34
O3.4	Coordination	Number of total bio-based solutions catalogued	> 50	69
O3.5	Coordination	Number of good practices for nutrient recycling collected	> 30	31
O3.6	Coordination	Number of existing digital tools integrated in MainstreamBIO toolkit	6	9
O3.7	Coordination	Number of synergies with clustered projects	> 20 joint actions	26

Within the activities of MainstreamBIO, 3 catalogues of bio-based solutions on technologies (16), social innovations (19), and innovative business models (34) were created and 31 good practices for nutrient recycling were collected. All these outputs along with 9 tools were integrated into the MainstreamBIO Digital Toolkit, making it valuable for interested stakeholders.

4.4 Build awareness and knowledge on bioeconomy (O4)

To assess progress towards sub-objective O4, a total of 14 indicators were used. Data for these indicators were collected through the Coordination and Awareness raising and education events and campaigns, using the (i) Reporting templates, and (ii) Feedback Questionnaire for the participants of the events. The following table presents the consolidated results of these indicators, highlighting the extent to which the sub-objective has been achieved.

Table 11: Progress towards O4 objective

Identifier	Activity	Indicator	Baseline Target	Progress
O41.1	Coordination	Number of stakeholders reached through dissemination activities	> 20000	27029
O41.2	Coordination	Number of stakeholders directly engaged	> 3000	4101
O41.3	Coordination	Unique visits to the project website	> 15000	8719

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Identifier	Activity	Indicator	Baseline Target	Progress
O41.4	Coordination	Followers on social media	> 1000	1377
O41.5	Coordination	External events/conferences attended	15	30
O41.6	Coordination	Views of the promotional video	> 500	1300
O41.7	Coordination	Number of newsletters released	6	6
O41.8	Coordination	Promotional material distributed	> 300	1340
O42.1	Awareness raising and education	Number of stakeholders reached in MainstreamBIO awareness raising campaigns	> 300	455
O42.2	Awareness raising and education	Number of participants in MainstreamBIO awareness raising and education events	20 - 25 per event	IE (20 & 101), NL (30 & 75), PL (40 & 32), BG (20 & 21), DK (30 & 80), SE (36 & 50), ES (24 & 201)
O42.3	Awareness raising and education	Percentage of stakeholders reached through building awareness activities (T3.5) interested in receiving information about MainstreamBIO outcomes / total number of stakeholders reached	> 50%	41.67%
O42.4	Awareness raising and education	Number of stakeholders who reported that in the future they would more actively search information about bioeconomy (or read related articles/news) / total number of stakeholders reached	> 50%	61.24%
O42.5	Awareness raising and education	Number of stakeholders who reported that they gained a better understanding about bioeconomy / total number of stakeholders reached	> 70%	61.63%
O42.6	Awareness raising and education	Number of stakeholders who reported that they find the content of the awareness raising & education campaign relevant to their needs / total number of stakeholders reached	> 70%	63.95%

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Based on the results, the dissemination activities of the project are quite impactful, reaching and engaging thousands of stakeholders across rural focal areas.

As part of its outreach efforts, MainstreamBIO organised awareness raising and education campaigns across all seven MIPs, with one event per region per Innovation round. In total, 455 stakeholders were reached through webinars (10 webinars), while participation in the local events showed strong regional engagement. Attendance figures for Rounds 1 and 2 respectively included: Ireland (20 & 101), the Netherlands (30 & 75), Poland (40 & 32), Bulgaria (20 & 21), Denmark (30 & 80), Sweden (36 & 50), and Spain (24 & 201).
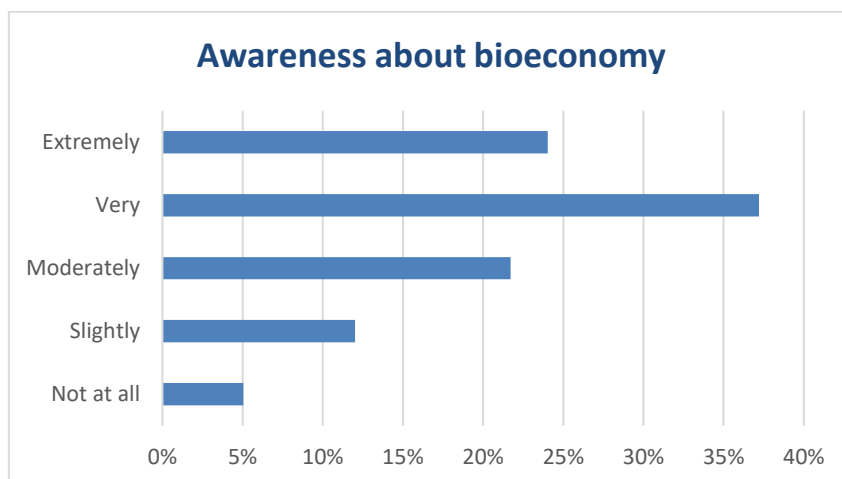
Figure 24: Stakeholders that will seek more information about bioeconomy

The events proved effective in increasing interest and promoting future engagement with the bioeconomy. When asked whether they would actively seek more information on bioeconomy topics, 61.24% of stakeholders responded "Very" (37.21%) or "Extremely" (24.03%), while only 5.04% indicated "Not at all".
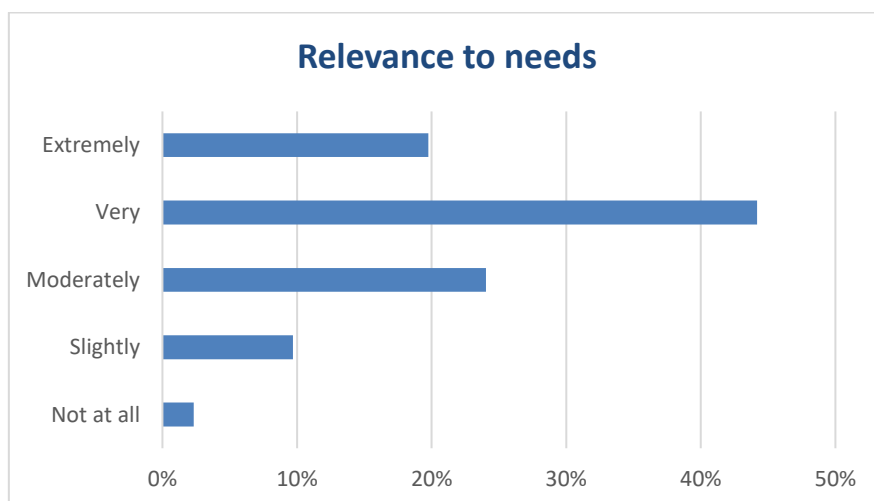
Figure 25: Participants who found the content of the awareness raising & education campaign relevant to their needs

Regarding content relevance, 63.96% of respondents rated the campaigns as "Very" or "Extremely" relevant to their needs, 24.03% responded that the content was "Moderately" relevant, while the rest 12.02% indicated that the content did not meet their expectations and needs at a certain level. The positive feedback confirms that our local events strongly consider rural stakeholders' needs towards strengthening awareness and interest in small-scale bio-based solutions.

4.5 Comparison among MIPs

4.5.1 *Comparison between Low- and Med-income MIPs*

Within the frame of T5.4, alternative Business Models for the operation of MIPs were designed, validated and assessed against specific criteria by all MIPs, ultimately selecting the most suitable for further exploration (see MainstreamBIO D5.4 "Exploitation and Sustainability Plan_initial version"). Based on the business model selection, the MIPs are grouped into two categories: low-income and medium income. Specifically, the Danish, Irish, Dutch and Polish MIPs chose the low-income business model, while the Bulgarian, Spanish and Swedish MIPs chose the medium income business model. This categorisation enables a comparative analysis of key indicators across the two groups, which is one of our three selected techniques to process data for evaluation purposes (see Section 2.3 - Assessment and Evaluation framework), offering insights into how regional conditions and challenges may shape stakeholder engagement, satisfaction levels, and overall impact.

A comparison of stakeholder participation across low- and medium-income MIPs reveals several notable differences in terms of size and composition. On average, low-income MIPs engaged more members (21.50 per MIP) compared to 18 in medium-income MIPs, suggesting a broader interest or perhaps a stronger perceived value in participating in multi-actor structures in regions with more pressing economic needs. This could be attributed to a need for new opportunities in lower-income areas.

Stakeholder Composition

	BiomassProducers	Business	Research	CivilSociety	Policy	Young farmers
■ Low-income	17%	42%	20%	2%	19%	53%
■ Medium-income	13%	33%	26%	13%	15%	29%
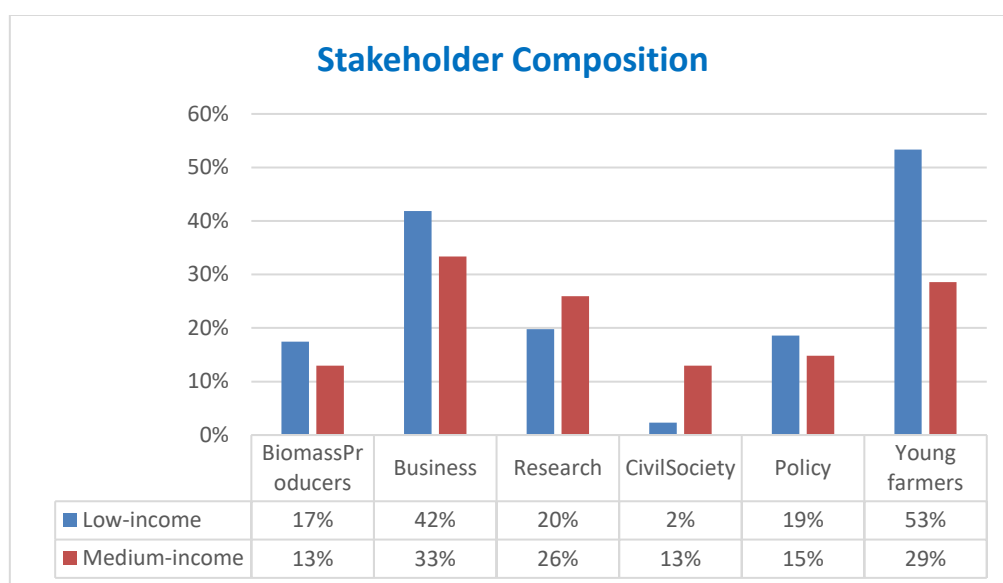
Figure 26: Comparison of low- and med- income MIPs' stakeholder composition

Looking at stakeholder composition, low-income MIPs were more heavily composed of business stakeholders (42%) and were lacking stakeholders from Civil Society (2%), while medium-income MIPs had a more balanced profile, with relatively higher representation from business (33%). Policy stakeholder representation was comparable across both groups (19% in low-income vs. 15% in medium-income). A striking difference lies in youth engagement among biomass producers, with 53% of them being young farmers in low-income MIPs, compared to 29% in medium-income ones—highlighting stronger generational interest and potential for transformation in more economically constrained areas.
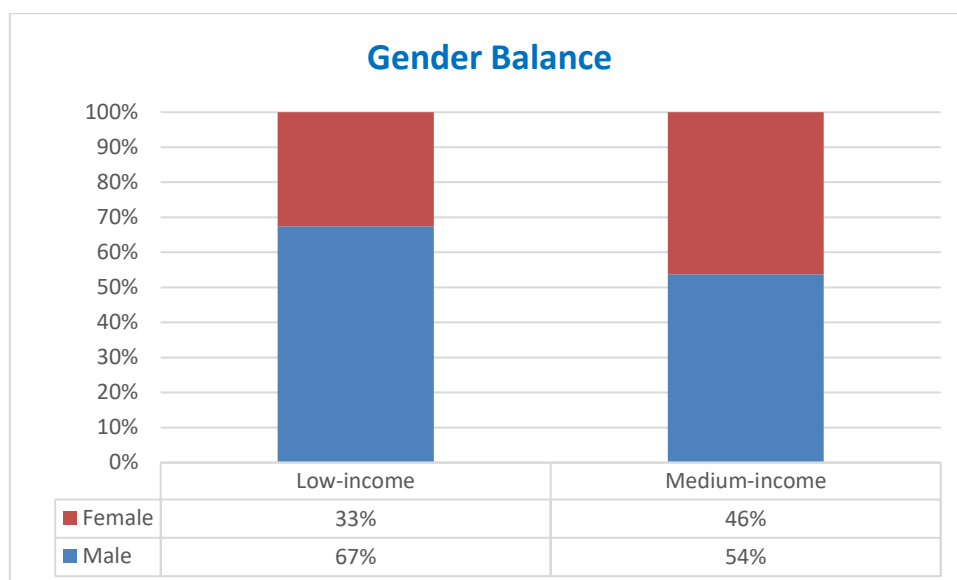
Figure 27: Comparison of low- and med- income MIPs' gender participation

Regarding gender balance, medium-income MIPs outperformed low-income MIPs, with 46% female participation versus 33%. This suggests that while low-income regions may engage a larger number of stakeholders overall, medium-income MIPs may offer a more inclusive environment, particularly for women.
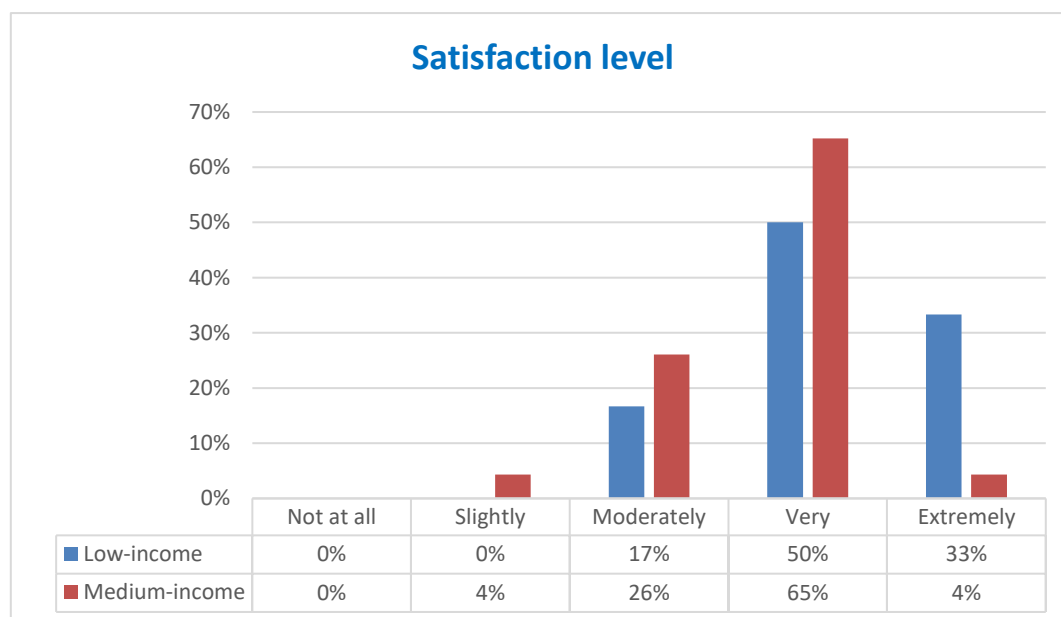
Figure 28: Satisfaction level of low- and med- income MIP members in terms of participating the MIPs

Satisfaction levels among MIP members differ notably between low- and medium-income regions. In low-income MIPs, satisfaction is remarkably high, with 83% of participants indicating they were either "Very" (50%) or "Extremely" (33%) satisfied with their participation. This reflects a strong alignment between the needs of stakeholders in lower-income areas and points to a greater perceived impact of the MIPs in regions where such support structures are less common and more needed. In contrast, satisfaction levels in medium-income MIPs are more moderate. While 65% rated their experience as "Very" satisfying, only 4% rated it "Extremely" satisfying, and 30% rated their satisfaction at "Moderately" or lower. This suggests that while engagement is still very positive, expectations in medium-income areas might be higher, the stakeholder needs might be different, or the added value of participating in regional MIPs may be perceived as less transformative.

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Willingness for bioeconomy actions

	Yes
■ Low-income	70%
■ Medium-income	81%
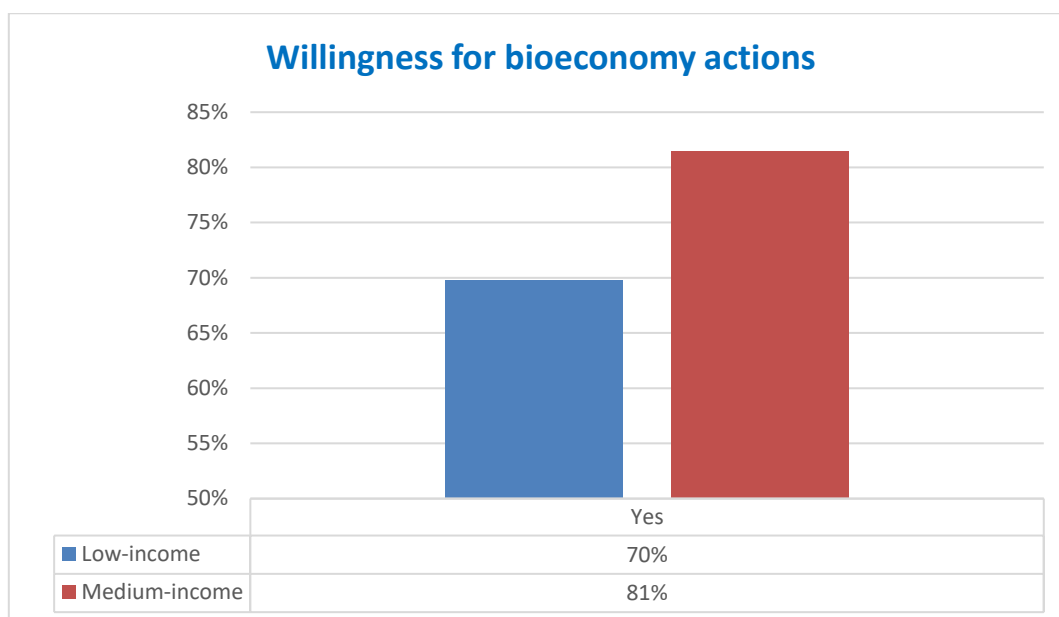
Figure 29: MIP members willing to take bioeconomy-related actions

A comparison between income groups reveals a slight difference in the willingness of MIP members to take bioeconomy-related actions. In medium-income MIPs, 81% of members expressed readiness to engage in bioeconomy initiatives, compared to 70% in low-income MIPs. While both figures reflect a generally high level of motivation, the higher willingness in medium-income regions may stem from greater familiarity with small-scale bio-based frameworks, access to enabling infrastructure, or more mature market conditions. On the other hand, the relatively lower—but still significant—willingness in low-income MIPs suggests enthusiasm tempered by possible regional challenges.

Previous engagement in Bioeconomy

	Low-income	Medium-income
■ No	20%	39%
■ Yes	80%	61%
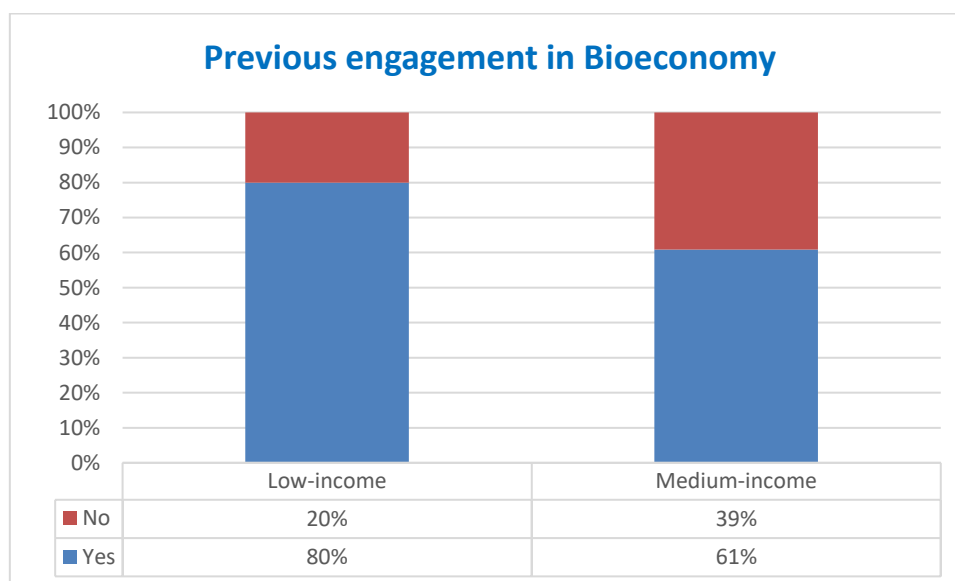
Figure 30: Members with previous engagement or experience in bioeconomy

When comparing prior experience in bioeconomy-related activities across MIPs, an interesting contrast emerges. In low-income MIPs, 80% of members reported previous engagement in the bioeconomy, whereas in medium-income MIPs, the figure was 61%. This higher rate of previous engagement in low-income areas may reflect a greater reliance on traditional bio-based practices or local familiarity with bio-based activities as part of rural livelihoods, even if these practices are not always framed as part of a modern bioeconomy. In contrast, the lower rate in medium-income MIPs may suggest a less direct involvement in bioeconomy and related activities.

4.5.2 *Comparisons within Low- and Med-income groups*

While the comparison between low- and medium-income MIPs provides valuable insights into broader structural and contextual differences, it is equally important to examine the variation within each group. Analysing the individual MIPs that belong to the same income category allows us to identify internal divergences. To this end, a statistical analysis was conducted across several indicators concerning the MIPs to assess the differences within each group. Some of the most important results are presented in the following paragraphs.

An important dimension of comparison within each income group is the progress in terms of MIP members throughout the project, as this reflects the level of stakeholder engagement. Between M18 and M36, all MIPs recorded an increase in members, but the growth rates varied considerably across countries.

MIP progress_low-income

	M18	M24	M30	M36
Denmark	20	23	22	22
Ireland	11	12	13	16
The Netherlands	16	17	17	17
Poland	22	27	31	31
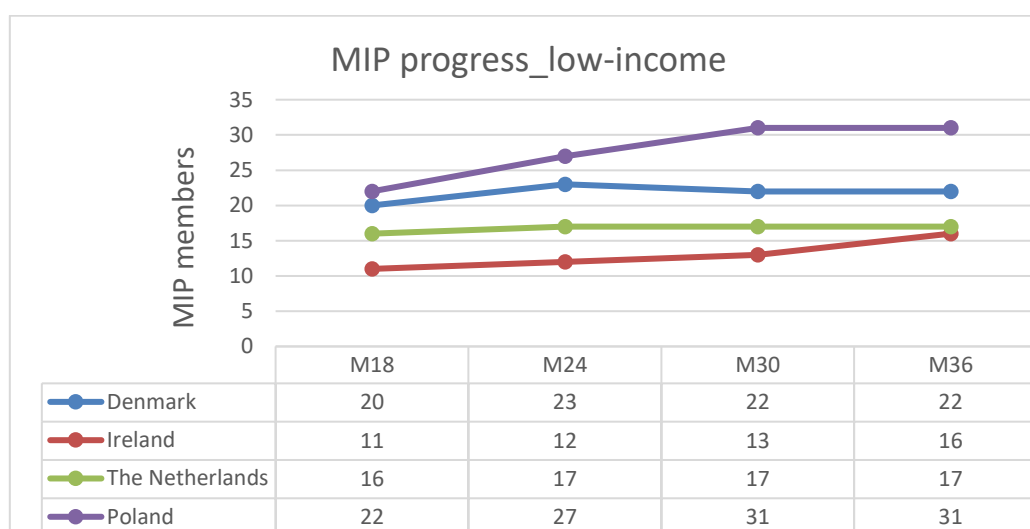
Figure 31: Number of members of the low-income MIPs

Within the low-income group, the Irish (13.30% increase per semester) and Polish (12.11%) MIPs showed the strongest growth, suggesting a dynamic expansion of stakeholder interest and successful engagement strategies. The Danish (3.23%) and Dutch (2.04%) MIPs grew more modestly, indicating more stable platforms with limited but steady inflow of new members.

MIP progress_med-income

	M18	M24	M30	M36
Bulgaria	20	21	23	23
Spain	12	12	14	16
Sweden	6	11	15	15
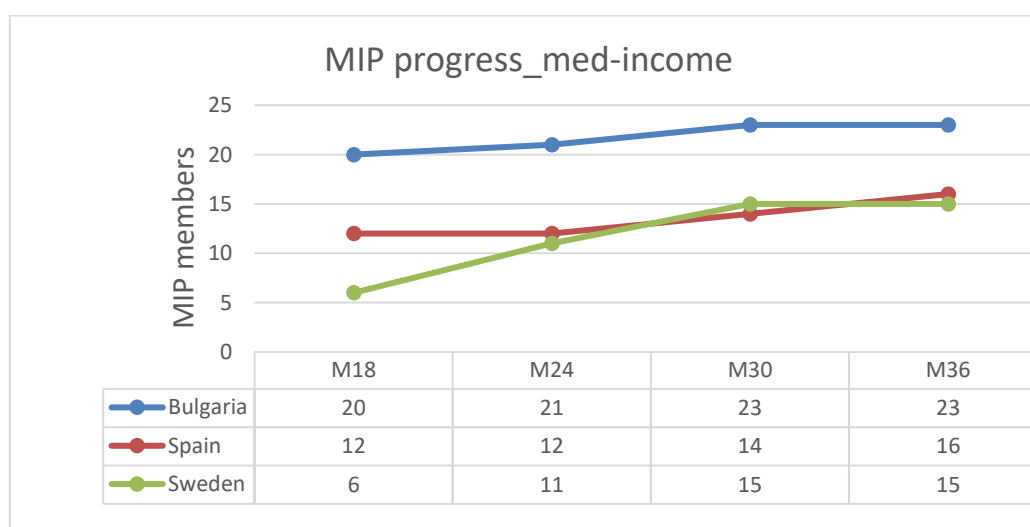
In the medium-income group, the Swedish MIP stood out with the highest growth rate (35.72%), almost tripling its members after M18. This remarkable increase depicts the effort spent to engage

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Swedish stakeholders. The Spanish (10.06%) and Bulgarian (4.77%) MIPs also achieved positive growth, with Spain showing strong momentum while Bulgaria maintained a more progressive expansion. Overall, while all MIPs managed to increase their members, the pace of growth varied significantly, highlighting different levels of maturity, attractiveness, and stakeholder mobilization strategies across regions.

Understanding the prior experience of MIP members with bioeconomy activities provides valuable insights into the baseline knowledge and expertise within each platform.
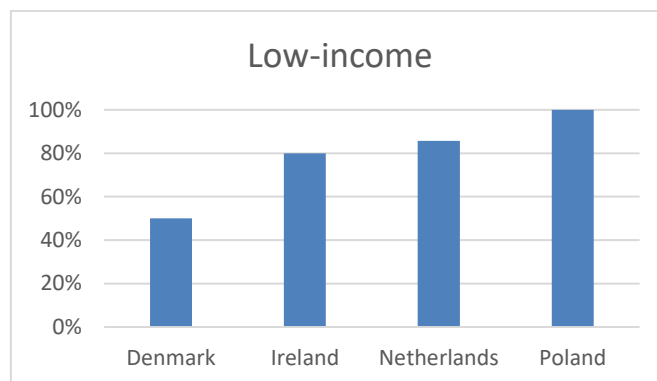
Figure 32: Previous engagement with bioeconomy of low-income MIP members

Within the low-income group, the Polish MIP stands out with 100% of members already engaged in bioeconomy, demonstrating a strong foundation of prior experience. The Dutch (86%) and Irish (80%) MIPs also show high levels of previous involvement, indicating that most of their members had familiarity with bioeconomy before joining. The Danish MIP, however, presents a lower share at 50%, suggesting a more balanced composition of experienced and new actors.
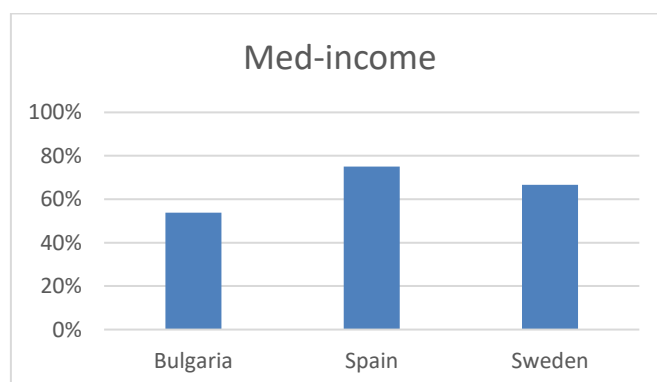
Figure 33: Previous engagement with bioeconomy of med-income MIP members

In the medium-income group, the levels of previous engagement are more varied. Spanish (75%) and Swedish (67%) MIPs indicate a solid base of experienced members, while the Bulgarian (54%) shows a closer split between those with prior bioeconomy experience and newcomers.

The willingness of MIP members to actively engage in bioeconomy-related actions reflects the motivational potential of each platform.
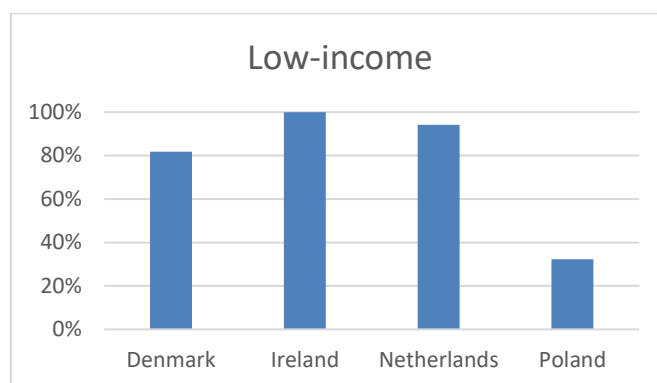
Figure 34: Willingness of low-income MIP members to take bioeconomy-related actions

In the low-income group, results vary considerably across countries. Irish and Dutch MIPs stand out with 100% and 94% of members, respectively, expressing willingness towards action. The Danish MIP also shows a high level at 82%, suggesting a broad interest among its members. In contrast, the Polish MIP records a significantly lower share, with only 32% of members indicating readiness to act, pointing to potential barriers or contextual challenges that may affect mobilization.
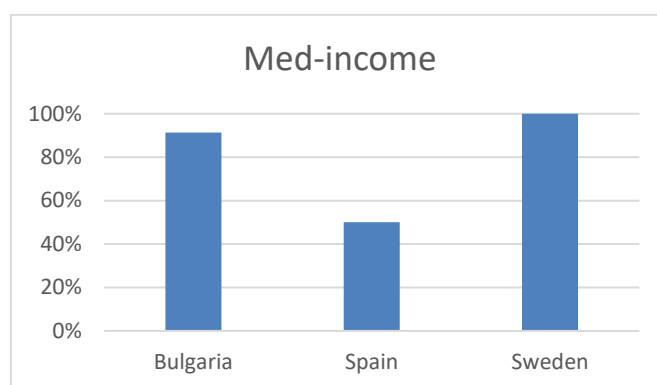
Figure 35: Willingness of med-income MIP members to take bioeconomy-related actions

Within the medium-income group, the Swedish MIP also reports 100% willingness, the Bulgarian follows closely with 91%, while the Spanish one presents a more moderate level, with 50% of members ready to take action.

The composition of MIP members in terms of age and gender provides important insights into diversity.
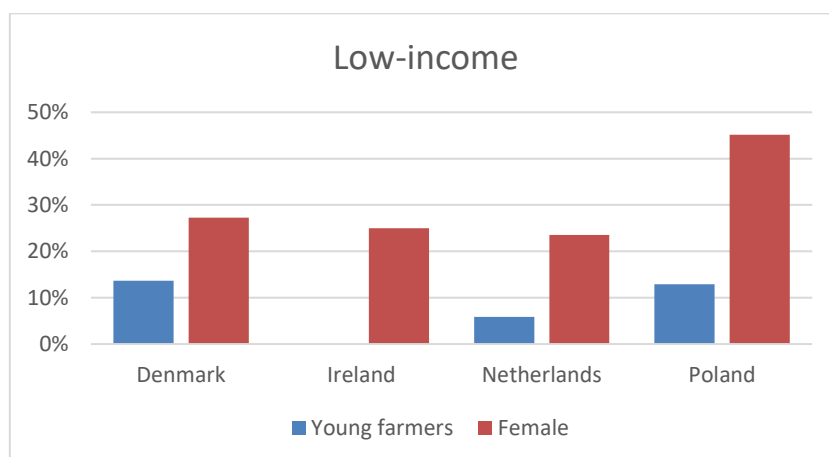
Figure 36: Young farmers and female participation within low-income MIPs

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In the low-income group, youth representation of biomass producers is relatively modest, with Ireland (0%) and the Netherlands (6%) showing no or very limited involvement of young farmers. Denmark (14%) and Poland (13%) display higher but still moderate shares of youth participation. Female participation shows greater variation: while Poland reaches 45%, Denmark, Ireland, and the Netherlands record lower levels (27%, 25%, and 24%, respectively).
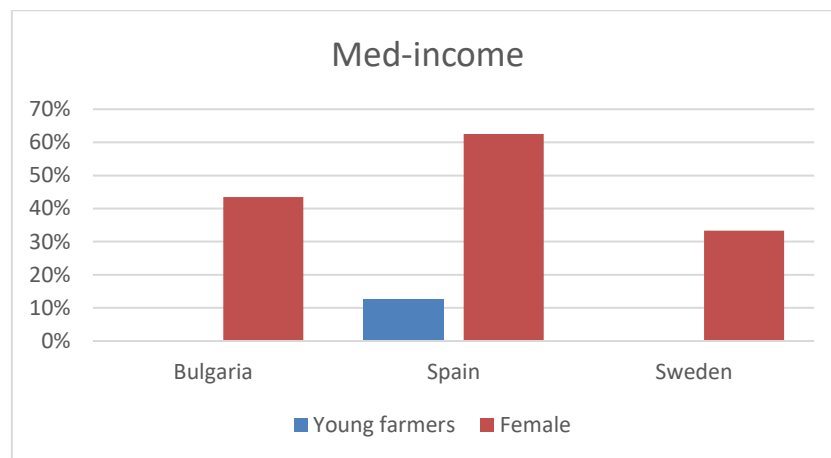
Figure 37: Young farmers and female participation within med-income MIPs

In the medium-income group, youth representation is similarly uneven, with Bulgaria (0%) and Sweden (0%) showing no young farmer engagement, while Spain (13%) demonstrates a more encouraging level. Female participation is generally stronger in this group compared to the low-income MIPs: Spain leads with 63%, followed by Bulgaria (43%) and Sweden (33%), all above the highest level observed in the low-income group.

5. **Conclusions**

The deliverable D4.6 - Report on evaluation of MIP performance - second round briefly describes the performance M&E framework and analytically presents the key findings and results emerged through the project activities and MIP operation. The MainstreamBIO project, through the establishment and mobilisation of its MIPs, has enabled a conducive environment for bringing small-scale bio-based solutions into mainstream across rural areas. The MIPs have actively involved a wide range of key stakeholders by hosting a variety of activities, in particular several types of workshops and tailored service provision. To effectively capture the diverse activities and their consequent impacts, the MainstreamBIO Monitoring framework was slightly refined, in terms of the defined indicators, based on the feedback received from the 1st Innovation Round and the 1st Virtual Validation Workshop. On top of that, key factor for the effective deployment of our M&E framework was the close collaboration of Q-PLAN (task leader) with all MainstreamBIO partners to collect the data and define realistic baseline targets.

This document captures the progress of the identified project objectives i) Enhance cooperation of key players and knowledge holders for bio-based innovations in rural areas, ii) Support innovators to accelerate the development of marketable products and services and improve market penetration of bio-based solutions, iii) Deploy existing knowledge to increase number of implemented bio-based solutions in rural areas, and iv) Build awareness and knowledge on bioeconomy. 13 data collection methods were used to capture the progress of 100 indicators and measure the performance of our MIPs and MainstreamBIO activities in general, offering an in-depth insight into the MIPs performance, the perceptions of their stakeholders, and the overall impact of the initiative.

In addition, the report, utilising the well-established Assessment and Evaluation framework, provides an analysis of results from the project activities. The Assessment and Evaluation exercise focused on various project activities and engaged a wide range of stakeholders (MIP members and externals, across all our target groups), including our AB members who validated the results through our 2nd Virtual Validation workshop. This document provides a concise overview of the activities and outcomes of MainstreamBIO, offering valuable insights into its achievements and suggesting directions for future research on small-scale bio-based solutions.

A broad range of conclusions was drawn from the project activities. The overall results demonstrate a high level of engagement and satisfaction among MIP members. The efforts of engaging female stakeholders and young farmers paid off, achieving high participation of both in MIPs, while the limited engagement of civil society reflects a broader EU problem which needs greater attention. Moreover, most participants found added value in their involvement, with many reporting strengthened network connections, but also expressing a good level of interest for taking bioeconomy-related actions.

Regarding the provision of services, there was high interest from the supported cases to receive more services, confirming the reported good collaboration and satisfaction of the service provision. However, the results showed that additional efforts will be needed to provide even more targeted services that could improve the income diversification inside the Multi-Actor Partnerships. Moreover, the results from the MainstreamBIO Toolkit shows a useful digital tool easy to navigate, attracting a lot of active users, especially interested in using the Decision Support System.

MainstreamBIO's scale-up and mutual learning workshops were particularly effective in inspiring participants to replicate the demonstrated solutions, considering their perception of a good scaling readiness level in their regions, while the awareness raising campaigns and events had a great

outreach on a broader audience, increasing their awareness of the bioeconomy. In addition, the Policy Roundtable showed remarkable results, highlighting the relevance of MainstreamBIO's policy insights with the EU policy objectives and their potential to addressing existing implementation gaps and challenges in policies.

The M&E framework proved to be a valuable tool in the hands of our MIPs, offering meaningful insights on their progress. The work done will be disseminated and made publicly available to serve as a basis for further investigation and use of interested stakeholders. To that end: i) D4.6 "Report on evaluation of MIP performance - second round" is a public deliverable and is available through the project's website, and ii) the main results is an openly shared dataset on Zenodo open repository.

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6. Annexes

Annex I - Stakeholder Matrix

MainstreamBIO Aggregate Stakeholders Matrix												
Organisation name	Demographics										Classification		
Organisation name	Stakeholder Group	Actor within value chain	Relevant existing network	Feedstock to be used	Bio-based Technology used / Experience in Bioeconomy ventures	Region	Country	Age of MIP Member	Gender of MIP Member	Interest Level	Power/ Influence Level	Attention and interaction

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Annex II - Report from MIP leaders

Introduction: This is a short report requested from all MIP leaders to evaluate the operation of their respective MIPs every 6 months. The aim of the report is to capture and regularly monitor some Key Performance Indicators (KPIs) of the MainstreamBIO project. Each MIP leader should collect the required data and fill in the report on semester basis. The data will be included in the Semester reports, starting from the 3rd Semester report.

Total estimated duration: 5'

MIP Leader /	[First Name] [Last Name]	MIP	[Country]
Date	[Date]		

It is highly recommended that always the same person files the report to facilitate comparisons between different periods.

Part 1: Questionnaire for MIP
Please reply to the following questions

#	Question	Data
1	How many MIP members dropped out in the last Semester?	
2	How many new MIP members did you engage in the last Semester?	
3	How many MIP members are truly willing to take bioeconomy-related actions?	
4	How many MIP members could be characterized as "prime movers" in bioeconomy?	

#	Question	Not good	Somewhat good	Neutral	Good	Very good
1	How do you perceive the level of trust between MIP members?					
2	How do you perceive the level of presence among MIP members?					

Apart from the above, did your MIP members recently undertake any other initiative to adopt any bioeconomy-related practices? If yes, then could you please describe them? *Examples of such initiatives could be (i) the adoption of new waste processing methods/techniques; (ii) employ bioeconomy strategy to develop new products; and (iii) introduction of a new bioeconomy related policy. If nothing changed since* <mark>*<month that the last MIP report was filled in>*</mark>*, please write "nothing changed".*

Finally, if you wish, you are welcome to add any other indicators that you would like to monitor.

#	Indicator / Question	Data
1		
2		
3		

Part 2: Questionnaire for MAPs

Please reply to the following questions

#	Question	Data
1	How many stakeholders are taking part in the MAPs?	
2	How many of the MAP members are farmers?	
3	How many of the MAP members are women?	
4	How many business support services were provided to the MAP stakeholders?	
5	How many technical support services were provided to the MAP stakeholders?	
6	How many of the supported cases are also members of the MIP?	
7	How many of the supported cases are actually Multi-actor Partnerships (more than 1 member)?	
8	How many of the supported cases will become Multi-actor Partnerships?	

When will they become MAPs?

Case number	Name of the applicant/candidate case	Data

Annex III - Questionnaire for Capacity Building workshops participants

1. General Impressions:

- How would you describe your overall experience with the website?
    - Very dissatisfied
    - Slightly dissatisfied
    - Neutral
    - Slightly satisfied
    - Satisfied
- Rate the website's overall design.
    - Poor
    - Fair
    - Average
    - Good
    - Excellent
- What emotions or feelings did you associate with the website?
    - Frustration
    - Confusion
    - Indifference
    - Satisfaction
    - Delight

2. Navigation:

- Were you able to easily find the information you were looking for?
    - Very difficult
    - Difficult
    - Neutral
    - Easy
    - Very easy
- Did the navigation menu and structure make sense to you?
    - Not at all
    - A little
    - Neutral
    - Sometimes
    - It is intuitive
- Were there any challenges or confusion in moving from one section of the website to another?
    - Confusing
    - Somewhat confusing
    - Neutral
    - Somewhat clear
    - Clear

3. Visual Design:

- How visually appealing do you find the website?
    - Not at all appealing
    - Slightly appealing

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- o Indifference
- o Moderately appealing
- o Very appealing
- o Extremely appealing
- Does the color scheme contribute positively to the overall experience?
  - o Not at all
  - o A little
  - o Neutral
  - o Sometimes
  - o It contributes positively
- Are the font styles and sizes easy to read?
  - o Extremely difficult
  - o Somewhat difficult
  - o Neither easy nor difficult
  - o Somewhat easy
  - o Very easy

4. Content:

- Did the content on the website meet your expectations?
  - o Didn't meet expectations
  - o Somewhat failed to meet expectations
  - o Neither more nor less
  - o Met expectations
  - o Completely met expectations
- Were you able to understand the main message or purpose of the website?
  - o Unable
  - o Difficult
  - o Neutral
  - o Understood
  - o Fully grasped
- Were there any sections where you felt the content was lacking or unclear?
  - o Catalogue of small-scaled bio-based solutions
  - o Collection of best practices for improved nutrient recycling
  - o MainstreamBIO Resources
  - o Decision Support System
  - o BioForum
  - o Bioeconomy Repository
  - o Tool Library
  - o Instructions

5. Interactivity:

- Did interactive elements (buttons, forms, etc.) work as expected?
  - o Not at all
  - o Rarely
  - o Sometimes
  - o Often
  - o Always
- Were you able to easily interact with features like sliders, pop-ups, or dropdown menus?

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- o Not at all
- o Rarely
- o Sometimes
- o Often
- o Always
- Were there any interactive elements that you found confusing or unnecessary?
  - o Write your answer

6. Mobile Responsiveness:

- How would you rate the website's performance and usability on a mobile device?
  - o Poor
  - o Fair
  - o Average
  - o Good
  - o Excellent
- Were there any elements that did not display or function well on a smaller screen?
  - o Not at all
  - o A little
  - o Neutral
  - o Sometimes
  - o It is intuitive

7. Load Time:

- How fast did the website load for you?
  - o Very slow
  - o Slow
  - o Average
  - o Fast
  - o Very fast
- Were there any delays or issues in accessing different pages?
  - o Yes, there were significant delays or issues
  - o There were some delays or issues
  - o There were minor delays or issues
  - o I did not notice any delays or issues
  - o No, there were no delays or issues

8. Call to action (Click to procced/Buttons):

- Did you find the buttons clear and compelling?
  - o Yes
  - o No
- Were you encouraged to take the desired actions on the website?
  - o Not at all
  - o Somewhat
  - o Neutral
  - o Quite a bit
  - o Very much

9. Accessibility:

- Did the website seem accessible to users with disabilities?

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- o No
- o Maybe
- o Yes
- o Other
- Were there any features that could be improved for better inclusivity?
  - o No
  - o Maybe
  - o Yes
  - o Other

10. Suggestions for Improvement:

- What specific improvements would you recommend for enhancing the user experience?
  - o Write your answer
- Is there anything else you would like to share about your experience with the website?
  - o Write your answer

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Annex IV - Questionnaire for Business Models validation survey participants

Feedback for MIP Business Model validation

MainstreamBIO has established Multi-actor Innovation Platforms (MIPs) in 7 regions of Europe. These platforms are composed of key regional stakeholders (farmers, agri-food and bio-based industry, government, academia, civil society) that have contributed to characterize the region and shaped the support services that have been provided to different cases along the 7 regions.

Now, MainstreamBIO partners are working on the sustainability of the MIPs in the long term, with the aim of supporting the development and establishment of small-scale rural bio-based business models in each of the study regions. To this end, we are proposing that the **MIPs established** during the project **become consolidated as a cluster or regional association** with different activities and services to help local actors who want to develop or improve their business ideas around the small-scale rural bioeconomy.

Based on the previous characterisation of the region and the needs identified by local actors, for the region XXX (XX) we have devised a cluster/association business model with a specific value proposition and activities. Please, look into the information in the following page and answer the questions below in order to improve the upcoming cluster / association usefulness.

- Do you think the value propositions respond to the needs of the region? Are there any needs that you are missing that need to be covered?
  - o <Answer>
- Would you include any additional key activities, key partners or customers (considering that we are targeting people in the rural bioeconomy who can benefit from this cluster)?
  - o <Answer>
- Please include any comments/suggestions that come to mind.
  - o <Answer>

XXX (Country) MIP

MainstreamBIO regional characterization: XXXX.

Value proposition and activities of the proposed cluster/association: The value proposition of the business model for the XXX MIP focuses on XXX

Value proposition	Key activities (free services)
1. XXX 2. XXX 3. ……	1. XXX o YYY o YYY 2. XXX o YYY o YYY o YYY X. …..

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Annex V - Questionnaire for Awareness raising and Educational events participants

MIP member	[First Name] [Last Name]	Title
Date	[Date]	
Organization	[Organization Name]	

Introduction: You have been invited to participate in a short questionnaire survey. Your replies will help us to evaluate the performance and impact of the key project activities.

Total estimated duration: 5'

Part 1: Background Information

1) Which of the following stakeholder groups do you associate with?
   - ❏ Biomass producer (farmers, forestry, aquaculture, unions, associations, etc.)
   - ❏ Business (agri-food & bio-based industry, logistics, financing)
   - ❏ Academic/Researcher
   - ❏ Government/policy-maker/public authority
   - ❏ Civil Society
   - ❏ Other, specify _____

2) Your Gender:
   - ❏ Female
   - ❏ Male
   - ❏ Diverse / Non-binary
   - ❏ Rather not to say

3) Your region: _____

4) What is your highest educational degree achieved?
   - ❏ Less than high school diploma
   - ❏ High school diploma
   - ❏ Some college, but no degree
   - ❏ Bachelor's degree or equivalent
   - ❏ Master's degree or equivalent
   - ❏ Doctorate or Professional degree

Part 2: Questionnaire

Please reply to the following questions

#	Question	Not at all	Slightly	Moderately	Very	Extremely
1	Did you have a better understanding of the bioeconomy after the campaign?					
2	Did you find the content of the awareness raising & education campaign relevant to your needs?					
3	Will you be more active in searching information about bioeconomy in the future?					
4	Would you be interested in receiving information about MainstreamBIO results?					

Part 3: Final thoughts

5: What improvements would you suggest complementing the webinar educational series?

6: What improvements would you suggest making the regional awareness raising event more interesting?

Annex VI - Questionnaire for MAP members receiving innovation support services

MIP Leader / Partner providing the service	/[First Name] [Last Name]	Title

Date | [Date]

Participant (MAP member) | [First Name] [Last Name]

Introduction: You have been invited to participate in a short questionnaire survey. Your replies will help us to evaluate the performance and impact of the key project activities.

Total estimated duration: 5'

Part 1: Background Information

5) Which of the following stakeholder groups do you associate with?
   - ❑ Biomass producer (farmers, forestry, aquaculture, unions, associations, etc.)
   - ❑ Business (agri-food & bio-based industry, logistics, financing)
   - ❑ Academic/Researcher
   - ❑ Government/policy-maker/public authority
   - ❑ Civil Society
   - ❑ Other, specify _____

6) Your Gender:
   - ❑ Female
   - ❑ Male
   - ❑ Diverse / Non-binary
   - ❑ Rather not to say

7) Your region: _____

8) What is your highest educational degree achieved?
   - ❑ Less than high school diploma
   - ❑ High school diploma
   - ❑ Some college, but no degree
   - ❑ Bachelor's degree or equivalent
   - ❑ Master's degree or equivalent
   - ❑ Doctorate or Professional degree

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Part 2: Questionnaire

Please reply to the following questions

#	Question	Very much	Somewhat	Undecided	Not really	Not at all	Don't know
1	Do you believe that you had a good collaboration with the service provider during the project?						
2	Do you believe that the support from MainstreamBIO services was satisfactory?						
3	Do you believe that your participation in MainstreamBIO activities improved your income diversification?						
4	Do you believe that the support received from MainstreamBIO services was sufficient?						
5	Do you believe that your participation in MainstreamBIO Multi-actor Partnership improved your team-working skills?						

#	Question	0% - 5%	≥ 5%	≥ 10%	≥ 15%	≥ 20%
6	How much do you believe that MainstreamBIO service will improve the market penetration of your product/solution?					

#	Question	<25%	25%-50%	50%-75%	≥ 75%
7	In 10 years, do you believe that the experience gained through participation in MainstreamBIO activities could assist you to significantly increase your income diversification (generate additional income by using residual bio-based resources to create new products such as bioenergy, fertilizers, or biochemicals, instead of discarding them)?				

Part 3: Final thoughts

1: What improvements would you suggest complementing the service provision?

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Annex VII – MIP Operation

MIP member	[First Name] [Last Name]	MIP	[Country]
Date	[Date]		
Organization	[Organization Name]		

Introduction: You have been invited to participate in a short questionnaire survey. Your replies will help us to evaluate the performance and impact of the key project activities.

Total estimated duration: 3'

Part 1: Background Information

9) Which of the following stakeholder groups do you associate with?
   - ❑ Biomass producer (farmers, forestry, aquaculture, unions, associations, etc.)
   - ❑ Business (agri-food & bio-based industry, logistics, financing)
   - ❑ Academic/Researcher
   - ❑ Government/policy-maker/public authority
   - ❑ Civil Society
   - ❑ Other, specify _____

10) Your Gender:
   - ❑ Female
   - ❑ Male
   - ❑ Diverse / Non-binary
   - ❑ Rather not to say

11) Your region: _____

12) What is your highest educational degree achieved?
   - ❑ Less than high school diploma
   - ❑ High school diploma
   - ❑ Some college, but no degree
   - ❑ Bachelor's degree or equivalent
   - ❑ Master's degree or equivalent
   - ❑ Doctorate or Professional degree

Part 2: Questionnaire

Please reply to the following questions

#	Question	Not at all	Slightly	Moderately	Very	Extremely	Don't know
1	Do you believe that the involvement and contribution of farmers to MainstreamBIO activities has been significant?						
2	Are you satisfied with participating in MainstreamBIO MIPs?						
3	Do you believe that the synthesis of MIP was adequately diverse to allow various opinions to be considered and fruitful synergies to be developed?						
4	Do you think that the participation in the MIP served well with your business benefits?						
5	Do you think that participation in the MIP hinders the freedom of research activities?						
6	Do you think that participating in MIPs' events has improved your connections with agricultural, business and research stakeholders?						
7	Do you think that MainstreamBIO services and digital toolkit promoted the engagement of farmers in bioeconomy?						

#	Question	Yes	No	Don't know
8	Do you believe that the activities of the MIP took place in a gender-equal environment?			
9	Did you get involved in MainstreamBIO MIPs through another contact already member of the MIP taking part in the project activities?			
10	Have you ever engaged before in any bioeconomy or rural local network?			

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#	Question	<25%	25%-50%	50%-75%	≥ 75%
11	In 10 years, do you believe that the experience gained through participation in MainstreamBIO activities could assist you to significantly **increase your income diversification** (generate additional income by using residual bio-based resources to create new products such as bioenergy, fertilizers, or biochemicals, instead of discarding them)?				

#	Question	0	1-2	3-5	5+	Don't know
12	By 2030, how many small-scale biobased solutions do you foresee to implement?					
13	By 2030, how many greener jobs do you foresee that will be created or safeguarded on average per value chain developed for the supported small-scale biobased solutions?					

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Annex VIII – Questionnaire for Mutual Learning participants

MIP member	[First Name] [Last Name]	Title
Date	[Date]	
Organization	[Organization Name]	

Introduction: You have been invited to participate in a short questionnaire survey. Your replies will help us to evaluate the performance and impact of the key project activities.

Total estimated duration: 2'

Part 1: Background Information

13) Which of the following stakeholder groups do you associate with?
   - ❑ Biomass producer (farmers, forestry, aquaculture, unions, associations, etc.)
   - ❑ Business (agri-food & bio-based industry, logistics, financing)
   - ❑ Academic/Researcher
   - ❑ Government/policy-maker/public authority
   - ❑ Civil Society
   - ❑ Other, specify _____

14) Your Gender:
   - ❑ Female
   - ❑ Male
   - ❑ Diverse / Non-binary
   - ❑ Rather not to say

15) Your region: _____

16) What is your highest educational degree achieved?
   - ❑ Less than high school diploma
   - ❑ High school diploma
   - ❑ Some college, but no degree
   - ❑ Bachelor's degree or equivalent
   - ❑ Master's degree or equivalent
   - ❑ Doctorate or Professional degree

Part 2: Questionnaire

Please reply to the following questions

#	Question	Not at all	Slightly	Moderately	Very	Extremely
1	Did the Mutual Learning Workshop enable you to create international contacts?					
2	Do you think that the field visits could inspire the replication of the showcased solutions?					

Part 3: Final thoughts

3: Is there any additional learning topic you wish had been covered?

4: How do you think we could better achieve knowledge exchange during the workshop?

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Annex IX – Questionnaire for Networking events participants

MIP member [First Name] [Last Name]   Title

Date   [Date]

Organization [Organization Name]

Introduction: You have been invited to participate in a short questionnaire survey. Your replies will help us to evaluate the performance and impact of the key project activities.

Total estimated duration: 2'

Part 1: Background Information

17) Which of the following stakeholder groups do you associate with?
- ❑ Biomass producer (farmers, forestry, aquaculture, unions, associations, etc.)
- ❑ Business (agri-food & bio-based industry, logistics, financing)
- ❑ Academic/Researcher
- ❑ Government/policy-maker/public authority
- ❑ Civil Society
- ❑ Other, specify _____

18) Your Gender:
- ❑ Female
- ❑ Male
- ❑ Diverse / Non-binary
- ❑ Rather not to say

19) Your region: _____

20) What is your highest educational degree achieved?
- ❑ Less than high school diploma
- ❑ High school diploma
- ❑ Some college, but no degree
- ❑ Bachelor's degree or equivalent
- ❑ Master's degree or equivalent
- ❑ Doctorate or Professional degree

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Part 2: Questionnaire

Please reply to the following questions

#	Question	Not at all	Slightly	Moderately	Very	Extremely	Don't know
1	Did your participation in this event facilitate the connections with possible partners?						
2	Did you get inspired from the showcased solutions to get engaged in small-scale bioeconomy projects?						

Part 3: Final thoughts

3: How many connections with potential partners were promising for fostering a multi-actor partnership (MAP) in this event? Please add company names.

4: What improvements would you suggest for the future networking events (show cases, matchmaking, innovative solutions)?

Annex X – Questionnaire for Policy Roundtable participants

Date	[Date]
Organization	[Organization Name]

Introduction: You have been invited to participate in a short questionnaire survey. Your replies will help us to evaluate the performance and impact of the key project activities.

Total estimated duration: 3'

Part 1: Background Information

21) Which of the following stakeholder groups do you associate with?
- ❑ Biomass producer (farmers, forestry, aquaculture, unions, associations, etc.)
- ❑ Business (agri-food & bio-based industry, logistics, financing)
- ❑ Academic/Researcher
- ❑ Government/policy-maker/public authority
- ❑ Civil Society
- ❑ Other, specify _____

22) Your Gender:
- ❑ Female
- ❑ Male
- ❑ Diverse / Non-binary
- ❑ Rather not to say

23) Years of Experience in Policy making / Public service
- ❑ Less than 5 years
- ❑ 5-10 years
- ❑ 11–20 years
- ❑ More than 20 years

24) What is your highest educational degree achieved?
- ❑ Bachelor's degree or equivalent
- ❑ Master's degree or equivalent
- ❑ Doctorate or Professional degree

25) Current Role / Position Title: _____

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Part 2: Questionnaire

Please reply to the following questions

#	Question	Don't know / Not familiar	Not relevant at all	Slightly relevant	Neutral	Somewhat relevant	Very relevant
1	Did you think that MainstreamBIO policy insights are relevant towards relevant EU policy objectives (EU Bioeconomy strategy, Green Deal, Long-Term Vision for Rural areas, new CAP)?						
2	Did you think that MainstreamBIO policy insights facilitate actors from different backgrounds to find overlapping areas of interest?						
3	Did you think that MainstreamBIO policy insights contribute to filling any policy implementation gaps and challenges for mainstreaming bioeconomy in rural areas?						

Annex XI – Questionnaire for Regional Scale-up participants

MIP member [First Name] [Last Name]   **Title**

Date   [Date]

Organization [Organization Name]

Introduction: You have been invited to participate in a short questionnaire survey. Your replies will help us to evaluate the performance and impact of the key project activities.

Total estimated duration: 2'

Part 1: Background Information

26) Which of the following stakeholder groups do you associate with?

❑ Biomass producer (farmers, forestry, aquaculture, unions, associations, etc.)

❑ Business (agri-food & bio-based industry, logistics, financing)

❑ Academic/Researcher

❑ Government/policy-maker/public authority

❑ Civil Society

❑ Other, specify _____

27) Your Gender:

❑ Female

❑ Male

❑ Diverse / Non-binary

❑ Rather not to say

28) Your region: _____

29) What is your highest educational degree achieved?

❑ Less than high school diploma

❑ High school diploma

❑ Some college, but no degree

❑ Bachelor's degree or equivalent

❑ Master's degree or equivalent

❑ Doctorate or Professional degree

Part 2: Questionnaire

Please reply to the following questions

#	Question	Not at all	Slightly	Moderately	Very	Extremely
1	Do you think that the small-scale biobased solutions have a good scaling readiness in your region?					
2	Did the case studies and success stories presented served as inspiration for your business activities?					
3	Have realistic business models pathways been created, answering your needs and challenges?					

Part 3: Final thoughts

4: Did you experience any barriers or success stories through MainstreamBIO? If yes, please elaborate.

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The project

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. 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 ADVISORS PC	Q-PLAN
	MUNSTER TECHNOLOGICAL UNIVERSITY	MTU
	STICHTING WAGENINGEN RESEARCH	WR
	INSTYTUT UPRAWY NAWOZENIA I GLEBOZNAWSTWA, PANSTWOWY INSTYTUT BADAWCZY	IUNG
	RISE PROCESSUM AB	PROC
	AGRAREN UNIVERSITET - PLOVDIV	AUP
	FBCD AS	FBCD
	EURIZON SL	INNV
	DRAXIS ENVIRONMENTAL SA	DRAXIS
	WHITE RESEARCH SPRL	WHITE