

Deliverable 5.2

Deployment of the methodologies for training and mentoring programmes, including impact assessment and recommendations

Consortium

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Table of Abbreviations and Acronyms

Abbreviation	Meaning
CoP	Community of Practice
CSOs	Civil Society Organisations
EC	European Commission
ET	Education and Training
EU	European Union
EuBioNet	European Bioeconomy Network
KPIs	Key Performance Indicators
LLL	Life-long learning
MML	Mobilisation and mutual learning
NEET	Not in Education, Employment, or Training
OECD	Organisation of Economic Co-operation and Development
SROI	Social Return on Investment
STEM	Science, Technology, Engineering and Math
STEAM	Science, Technology, Engineering, Arts and Math
ToC	Theory of Change
VET	Vocational Education and Training
WP	Work Package

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1. Executive Summary

The **BioGov.net project** aims to support the establishment of an innovative governance model for training and skills development in bioeconomy, to enhance evidence-based decision-making, promote inclusive social engagement of all actors, and facilitate the uptake of sustainable innovations across the bioeconomy sector.

Specifically, BioGov.net will provide **validated guidelines** for the establishment of frameworks for regional bioeconomy training and mentoring. These guidelines will draw insights from eight EU pilot regions (Czech Republic, Estonia, Germany, Greece, Italy, Netherlands, Portugal, Slovakia). A key feature of these guidelines is the integration of **human-centric principles**, derived from art, culture, and (eco)-design, particularly in relation to bio-based feedstocks, including both traditional and novel biological materials. Additionally, the guidelines will provide **policy recommendations** aimed at enhancing stakeholders engagement at local level and fostering the development of regional skills and capabilities. These efforts will support the transition towards climate-neutral, bio-based, circular, and low-carbon footprint products and services.

The **validation, deployment, and assessment** of the aforementioned guidelines at both regional and EU levels are the focus of **Work Package 5 (WP5)**. This phase entails a series of diverse national and transnational activities designed to ensure proper representativeness of the entire value chain and territorial specificities. Central to WP5 is the dissemination and validation of the **BioGov.net methodology**, which uniquely integrates elements of the humanities, art, design, and culture to support the transition towards an innovative and inclusive bioeconomy.

During the **final reporting period**, WP5 activities also focused on **validating of the impact assessment framework**. This involved active engagement with stakeholders from the **eight Communities of Practice (CoPs)** as well as broader audiences. This was achieved through the implementation of a dedicated **EU-wide survey** and an **EU co-creation workshop**, aimed at **co-creating policy recommendations** on impact assessment approaches to inform the design of future EU bioeconomy policies.

2. Introduction

BioGov.net is implemented across eight EU countries by building multi-stakeholder CoPs, aimed at exploring and advancing innovative governance models for bioeconomy education. The project adopts a co-creation approach to develop guidelines for vocational and lifelong learning, with a focus on regional needs and social inclusion. The guidelines integrate **arts-based and STEAM (Science, Technology, Engineering, Arts, and Mathematics) approaches** to foster transversal skills, empower marginalised groups, and promote innovative career paths within the bioeconomy. By embedding elements from humanities, art, design, and culture, BioGov.net seeks to enable a more sustainable, just, and inclusive bioeconomy transition to a bioeconomy. This is operationalised through the implementation of a validated methodology that connects art and bioeconomy education (see Deliverable 5.1 for further details).

In this context, WP5 “**Validation and EU calibration**” aimed to support the validation of transnational guidelines and methodologies for training and mentoring programmes, developed through various activities across the target Countries. WP5 also aimed to generate tailored educational and policy recommendations to facilitate the effective implementation of these approaches at both regional and EU levels. During its last phase, WP5 focused on the creation and validation of an impact assessment framework, actively engaging stakeholders through surveys and workshops. These participatory processes led to the formulation of jointly developed policy recommendations on impact assessment methodologies, intended to guide the design of future EU bioeconomy policies.

Deliverable 5.2 provides a comprehensive overview of the activities carried out under WP5, as outlined in **section 3**. Particular emphasis is placed on the interconnection among the various tasks that collectively inform and shape the entire WP5, with a specific focus on activities performed during the second phase of the project implementation. Section 4 details the validation process of the guidelines and methodologies for VET and Life-Long-Learning (LLL) at the regional level, which serve as the foundation for formulating recommendations at the EU level. This section also presents the structure agreed upon for the European validation workshop, which was held place in conjunction with the First EU mutual learning co-creation workshop under Task 5.2, further elaborated in section 5.

Section 5 also describes the Second mutual learning co-creation workshop, conducted in the context of T5.3. This workshop served to both disseminate and validate the preliminary findings of the BioGov.net project’s impact assessment study, and to collaboratively explore their implications for future bioeconomy policy development. The session facilitated stakeholder engagement in co-creating insights on how impact assessment methodologies can inform and shape policymaking at the EU level

The validated impact assessment study and the resulting final policy recommendations are presented in **Section 6**. Lastly, **section 7** offers the concluding reflections and key lessons learned from the full range of activities undertaken within WP5.

3. WP5 overview

3.1 WP5 overview: connections between tasks

Throughout the project, the **validation dimension**— a central focus of WP5—was systematically integrated across all stages of implementation. It shaped both the partner-led activities and the engagement strategies employed during CoP events. WP5 also addressed key dimensions such as the **deployment** of BioGov.net methodology within regional and EU-level training and mentoring programmes, and the **development of a robust impact assessment framework**. This framework aims to evaluate the outcome of actions initiated within each CoP, while also enabling continuous monitor, assessment, and reinforce the effectiveness of the validated guidelines on bioeconomy and sustainability.

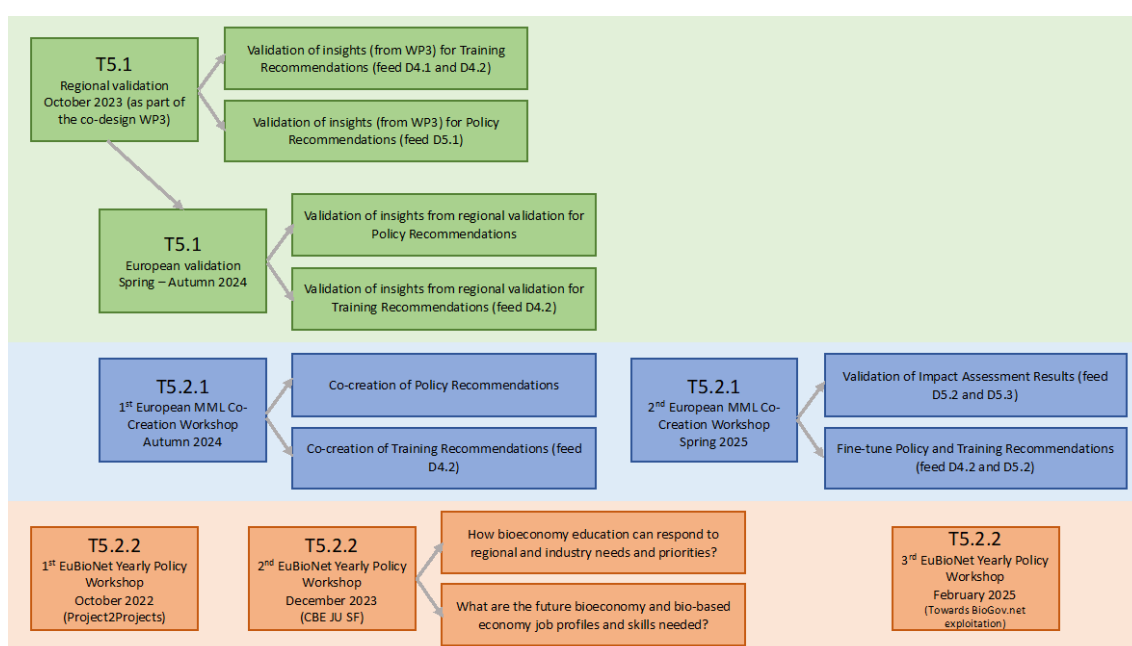


Figure 1 - Connection among the tasks of the WP

Activities carried out under Task 5.1 (indicated in green) initially focused on engaging stakeholders in a regional-level validation process, conducted between October and November 2023 as part of the workshops organised under Work package 3 (WP3). The validated insights generated through this process directly fed into the development of key project deliverables: D4.1 and D4.2 (training guidelines and recommendations) and D5.1 (policy recommendations). This foundational work paved the way for the first European validation workshop, held in October 2024 under Task 5.1, and carried out in coordination with Task 5.2.1 (shown in blue in Figure 1 – first European MML co-creation workshop).

The second European MML co-creation workshop (also shown in blue), conducted under Task 5.1.2, was closely linked with the activities of Task 5.3 and was held on March 2025. Concurrently, Task 5.2.2 (highlighted in orange in Figure 1) encompasses the annual policy workshops, which served as transversal activities evolving in parallel with the different phases of the project. These workshops were instrumental in facilitating the

exploitation and uptake of BioGov.net's final outcomes, including its educational and policy recommendations.

3.2 WP5 activities focus during the second phase of the project

During the second phase of the project, the focus shifted toward **consolidation validation efforts and the enhancement of stakeholder engagement through targeted co-creation activities**. A key milestone in this phase was the first European MML workshop, which marked a strategic transition from regional-level validation to cross-regional dialogue. This event provided a platform for stakeholders to collaboratively review, discuss and refine the initial findings and recommendations generated during the earlier stages of the project.

This process continued in the second European MML co-creation workshop, which provided a collaborative forum for the presentation and refinement of the impact assessment framework. The outcomes of this workshop shaped the development of the final policy recommendations presented in Deliverable D5.2. Simultaneously, the final series of policy workshops, held between November 2024 and early months of 2025, focused on ensuring Biogov.net's active presence in key events related to bioeconomy education. Through participation in prominent forums and strategic discussions, the project contributed to shaping future directions and informing policy development in the field.

These efforts, fully aligned with the overarching BioGov.net's methodology, ensured that the guidelines, recommendations and tools developed throughout the project were not only rigorously validated across diverse regional contexts, but also poised for uptake and long-term application at both the regional and EU levels.

4. Validation of the guidelines and methodologies for training and mentoring programmes at European level

A central objective of WP5 is the validation of the BioGov.net proposed guidelines at both regional and EU levels. This process contributes to the development of local innovation ecosystems by identifying balanced opportunities related to bio-based feedstock availability, infrastructure, and capacity, all within the broader framework of sustainable regional development and investment planning. Moreover, WP5 seeks to promote sustainability-driven policy frameworks by advancing tailored training and mentoring programmes stemming from the activities conducted under Task 5.1.

The initial validation phase was implemented during the early stages of the project through a series of regional workshops engaging Quadruple Helix stakeholders from the project's CoPs (as detailed in Deliverable 5.1). This process was further complemented by a European online validation workshop, held in October 2024, the structure of which is reported below (Section 4.1).

4.1 European validation workshop structure

The European online workshop was designed to support the development of transnational guidelines and methodologies for training at the EU level. In recognition of strong synergies between Task 5.1 and Task 5.2.1—which focuses on European co-creation workshops aimed at fostering cross-regional capacity-building, knowledge exchange, and mutual learning - the WP5 leaders opted to organise a joint online event. This joint workshop brought together a wide range of relevant stakeholders from all CoPs and beyond, ensuring that the outcomes were responsive to the distinct goals and deliverables of each task while maximizing stakeholder engagement and overall impact.

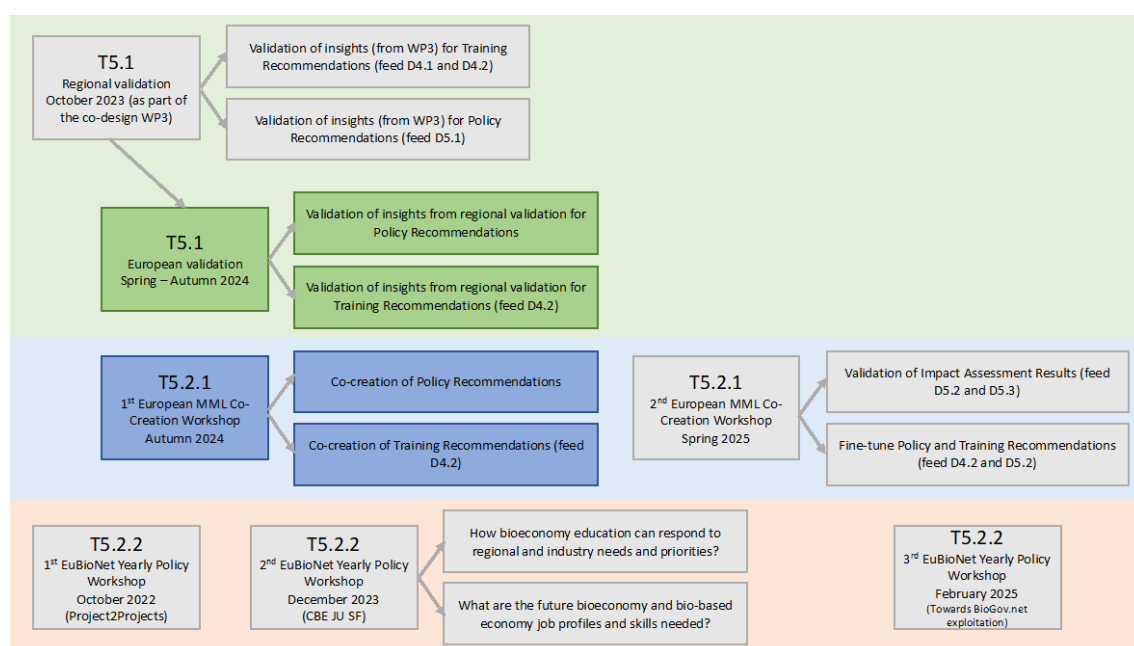


Figure 2 - Overview of the timeline highlighting the connection between this activity and the other tasks

Compared to the initial structure outlined in Deliverable 5.1, the WP5 leaders agreed on a slight adjustment, as detailed below.

Objectives: The workshop was organized as a combination of Task 5.1 European validation and Task 5.2.1 European Mobilization and Mutual Learning Workshop and had a set of clear objectives with regard to T5.1:

- **Validation of Regional Insights:** Validate the insights derived from the regional validation of policy recommendations, ensuring their relevance and applicability at the European level.
- **Validation of Regional Training Insights:** Validate the insights obtained from the regional validation of training recommendations, ensuring that they align with the broader European context.

Expected Outcomes: The European validation workshop produced the following outcomes:

- **Validated Insights and Recommendations (Education and Policy):** The workshop validated regional insights related to both policy and training, ensuring the recommendations were robust and relevant for implementation at the European level.

Context and timing: Originally scheduled for Spring 2024, the workshop was postponed to October 2024 to ensure the availability and integration of regional outcomes from all CoPs' policy workshops. The adjustment also provided a more strategic timeframe for positioning the project's recommendations to inform the ongoing revision of the EU Bioeconomy Strategy.

The workshop represented a critical milestone in the implementation of BioGov.net project, combining activities under Task 5.2 (validation) and Task 5.2.1 (co-creation). This integration aimed to ensure that the insights and recommendations emerging from regional activities were not only thoroughly validated but also aligned with broader European policy and training priorities. In the context of Task 5.1, the event served to validate regional policy and training, ensuring their relevance and coherence at the EU level. A more detailed account on the objectives, expected outcomes, and results of integrated activity - particularly in relation to Task 5.2.1 - is presented in the subsequent section, including the workshop report and corresponding outcomes (see sections 5.2.1 and 5.2.2).

5. Deployment of BioGov.net methodologies for training and mentoring programmes at regional and EU level

This chapter presents an overview of the actions carried out to implement the BioGov.net methodologies within training and mentoring programmes at both the regional and EU levels, with particular emphasis on the activities under Task 5.2. These efforts were intrinsically linked to the broader objectives and deliverables of Work Packages 2, 3, and 4, particularly to their ambition to establish innovative, inclusive, and interdisciplinary governance models for bioeconomy education.

Task 5.2 was designed to strengthen cross-regional capacities, promote inter-territorial knowledge exchange, and foster dialogue among a broad range of stakeholders engaged in the governance of a sustainable bioeconomy. The applied methodology was aimed to support mutual learning through participatory formats, while encouraging the development of synergies among key actors across the educational, policy, societal, and economic sectors, both within the BioGov.net consortium countries and beyond.

A cornerstone of this task was the organisation of **two European Mutual Learning Co-Creation Workshops**, which played a pivotal role in operationalising the BioGov.net methodology at the EU level. These workshops provided structured platforms for co-design, validation, and collaborative learning:

- The **first workshop**, titled “*What’s Next for Bioeconomy Education? VET and LLL Perspectives*” (October 2024), focused on formulating educational and policy recommendations for bioeconomy-related training, with particular emphasis on vocational education, lifelong learning, inclusivity, and interdisciplinary approaches.
- The **second workshop**, titled “*Impact Assessment and its Role in Policymaking*” (March 2025), focused on the validation of the BioGov.net impact assessment findings and the alignment of previously developed recommendations with this methodological framework. The workshop highlighted the importance of integrating impact assessment into policymaking processes to strengthen the responsiveness, transparency, and accountability of governance models in the bioeconomy sector.

To foster iterative feedback loops between civil society and policymakers, the partner organisation FVA committed to organising a **series of three annual conferences** over the course of the project. These events were held **in collaboration with the EuBioNet working group on bioeconomy education**, relevant European Commission-funded initiatives (including those involved in Task 1.4), and a broader network of stakeholders including civil society organisations. Beyond serving as platforms for dissemination, the conferences served as strategic forums for reflection, validation of project outcomes, and co-creation of policy-relevant recommendations.

The strategic planning, execution, and outcomes of the activities mentioned above are detailed in the following sections.

5.1 European mutual learning co-creation workshops

Task 5.2.1 was designed as a cornerstone of the BioGov.net's broader ambition to catalyse transnational collaboration, facilitate knowledge exchange, and promote mutual learning across diverse regional contexts. Its primary objective was to convene stakeholders from multiple sectors – policy, education, research, industry, civil society, and the arts – through a series of co-creation workshops that served **as incubators for inclusive, evidence-informed, and innovative governance models for the bioeconomy**.

Purpose and Scope

In alignment with the project's broader methodological framework, Task 5.2.1 sought to facilitate cross-regional cooperation and co-learning by hosting a total of **two European Mutual Learning Co-Creation Workshops**. These workshops were designed to harness and synthesise the findings of other work packages, notably:

- The **CoPs** established under WP3;
- The insights and outputs from the **annual Policy Workshops** organised under Task 5.2.2;
- The outcomes of mapping, stakeholder engagement, and case study development activities in **WP2 and WP4**.

Collectively, these inputs provided a robust empirical and experiential foundation for the workshop series, ensuring that the resulting recommendations and frameworks were deeply grounded in the real-world context, needs, and aspirations of diverse bioeconomy stakeholders across Europe.

Strategic Thematic Focus

Thematically, the two workshops revolved around **critical dimensions of sustainable bioeconomy policy and governance**. These included:

- The design, implementation, and monitoring of bioeconomy policies;
- The co-creation of educational frameworks and training pathways that integrate circular economy principles, environmental sustainability, and social innovation;
- The validation of impact assessment models capable of capturing holistic effects – social, environmental, economic, and cultural – of bioeconomy-related interventions.

In this way, the workshops functioned as dynamic platforms for deliberation and validation, while also enabling the co-design of scalable and transferable approaches to education and policy development within the bioeconomy sector.

Participants and Structure

The workshops brought together a **multidisciplinary and transnational cohort of experts**, including education and training providers, policymakers at local, regional, and EU levels, industry and SME representatives, civil society organisations, and members of cultural and creative sectors, alongside partners from BioGov.net and other Horizon Europe projects.

Participants were drawn from both BioGov.net's target regions and other EU Member States, reflecting the consortium's commitment to fostering cross-border dialogue and

facilitating knowledge exchange across geographic, institutional, and sectoral boundaries. By providing a shared and inclusive platform, the workshops strengthened the project's overarching aim of contributing to the co-creation of a resilient, fair, and future-oriented bioeconomy in Europe.

Both events were intentionally **designed as interactive, participatory processes**. A range of digital collaboration tools was employed to enable real-time co-creation, idea mapping, and consensus-building. Guiding questions and structured facilitation ensured broad stakeholder participation, and the integration of diverse perspectives into tangible, actionable outcomes.

Outcomes and Added Value

The significance of these workshops lay in their direct outputs – they:

- **Co-created policy and training recommendations,**
- **Validated impact assessment study results, and**
- **Strengthened stakeholder network.**

The workshops also **demonstrated the value of inclusive engagement practices in eliciting insights that are often overlooked**— particularly those emerging from underrepresented groups, such as artists, migrants, grassroots educators, and social innovation actors. Notably, the integration **of arts and culture within bioeconomy education was affirmed** as a powerful catalyst for both awareness-raising and systemic transformation.

Finally, the events fostered a shared sense of commitment to advancing the bioeconomy transition – not merely as a technological or market-driven process, but as a deeply **societal transformation**. Requiring diverse perspectives and co-created solutions. The cross-pollination of ideas and experiences facilitated during the workshops has already begun to inform national policy dialogues, enrich educational practices, and contribute to ongoing debates within European networks.

5.2 First European mutual learning co-creation workshop structure

Timing and Objectives

The first European Mutual Learning Co-Creation Workshop, titled “*What’s Next for Bioeconomy Education? VET and LLL Perspectives*”, was held on the 29th October 2024. Designed as a hybrid event, it contributed simultaneously to Task 5.1 (focused on European-level validation) and Task 5.2.1 (dedicated to European mobilisation and mutual learning). This workshop marked a key milestone in the BioGov.net project, serving as a platform for translating regional insights gathered from the eight CoPs into a coherent European framework for policy and education reform in the bioeconomy sector.

The objective of the workshop was to co-create educational and policy recommendations with a pan-European scope, drawing on collective expertise, shared experiences, and innovative practices across formal, non-formal, and informal education. Specifically, it pursued the following core objectives:

- **Co-Creation of Policy Recommendations:** Bring together stakeholders from various European regions to collaboratively develop policy recommendations aimed at sustainable and inclusive bioeconomy governance. The process involved exchanging best practices, exploring effective governance mechanisms, and discussing regulatory measures that could enhance bioeconomy education across different governance levels.
- **Co-Creation of Training Recommendations:** Collaboratively generate recommendations for innovative bioeconomy training approaches, focusing on capacity-building, skill development, and knowledge transfer within Vocational Education and Training (VET) systems and lifelong learning (LLL) programmes. Emphasis was placed on cross-sectoral collaboration and the integration of sustainability, creativity, and digital competencies.

These objectives were guided by the overarching vision of the BioGov.net project – to foster a just and inclusive transition to a sustainable bioeconomy by rethinking education and governance through the integration of humanities, arts, and culture.

Expected and Achieved Outcomes

The workshop was designed to yield a range of tangible and process-oriented outcomes aligned with BioGov.net's implementation strategy. These included:

- **Policy Recommendations:** Participants produced a structured set of policy recommendations addressing curriculum innovation, stakeholder collaboration, integration of bioeconomy into national and regional strategies, and inclusivity in policy design. These recommendations emphasized the need for alignment with broader sustainability, circular economy, and industrial policy agendas.
- **Training Recommendations:** The workshop generated actionable training recommendations, including the adoption of arts-based, experiential, and blended learning methodologies; the importance of transversal skill development (e.g., critical thinking, entrepreneurship, systems thinking); and the need for enhanced cooperation between education providers and industry actors.
- **Stakeholder Engagement:** The workshop fostered meaningful engagement among stakeholders from educational institutions, civil society, industry, and public authorities. This cross-sectoral dialogue contributed to the validation of regional findings and the co-creation of scalable European solutions.
- **Documentation and Knowledge Sharing:** All recommendations, insights, and outputs were documented to inform subsequent project activities and policy dialogues, including those linked to the National Bioeconomy Coordination Board in Italy and the wider EuBioNet community.

5.2.1 Report of the first European mutual learning co-creation workshop “What’s Next for Bioeconomy Education? VET and LLL perspectives”



Figure 3 - Banner of the workshop

The event featured inspirational presentations from leading projects in bioeconomy education, each contributing to co-creating educational and policy recommendations in vocational training and life-long learning, while supporting the mapping/implementation of case studies and best practices in this domain. Key presentations were presented by:

- **Selenia Marinelli** (FVA – New Media Research) shared **insights from the regional policy workshops organized within the 8 CoPs** established by **BioGov.net** in targeted Countries, emphasising the successful participatory exercise performed with CoP members to collect extensive and insightful education and policy recommendations based on the local barriers, opportunities, needs and priorities.
- **Viola Pinzi** (European Association for the Education of Adults) introduced the **Engage4BIO Educational Guidelines**, which support the development of Regional Hubs to promote bioeconomy practices.
- **Nadia Sansone** (Unitelma Sapienza) presented the recently concluded **Circular Bricks project**’s lessons learnt and innovative pedagogical materials designed for VET teachers, focusing on circular bioeconomy through a train-the-trainer approach.
- **Eddy Grand-Meyer** (European Schoolnet) highlighted recommendations from the **Scientix initiative**, a vibrant community fostering STEM education and collaboration among educators, researchers, and policymakers.
- Finally, **Han van Osch** (AVANS) shared takeaways from the workshop on life-long learning for bioeconomy professionals organised by the ICA Community of Practice for Bioeconomy Education (**CoP Bio-Edu**), on 23rd -24th October 2024.

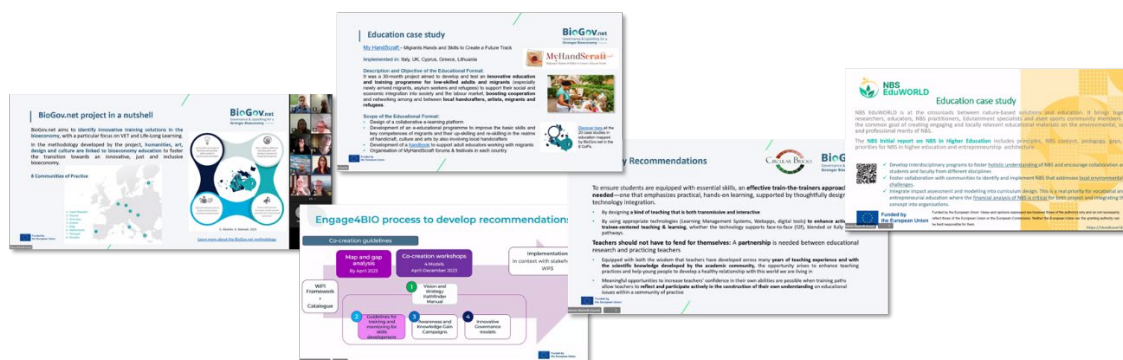


Figure 4 – Slides from keynote presentations from invited projects

The second half of the workshop featured an interactive session facilitated via the [Miro digital collaboration platform](#), designed to actively engage participants in the co-creation of where they collaborated to generate insightful inputs for educational and policy frameworks. Guided questions spurred rich dialogue, ensuring diverse perspectives were considered in shaping actionable recommendations.

The interactive session, divided into two steps, using a MIRO board pre-filled with insights from the opening inspirational case studies. One part focused on developing **educational recommendations** for both formal, non-formal and informal education, emphasizing awareness and learning strategies to be adopted by the educational community. The second part targeted policymakers, co-creating **policy recommendations** for sustainable bioeconomy education governance models at the European level. This process encouraged knowledge exchange on best practices, innovative policies, and regulatory measures to enhance bioeconomy education across diverse educational settings.

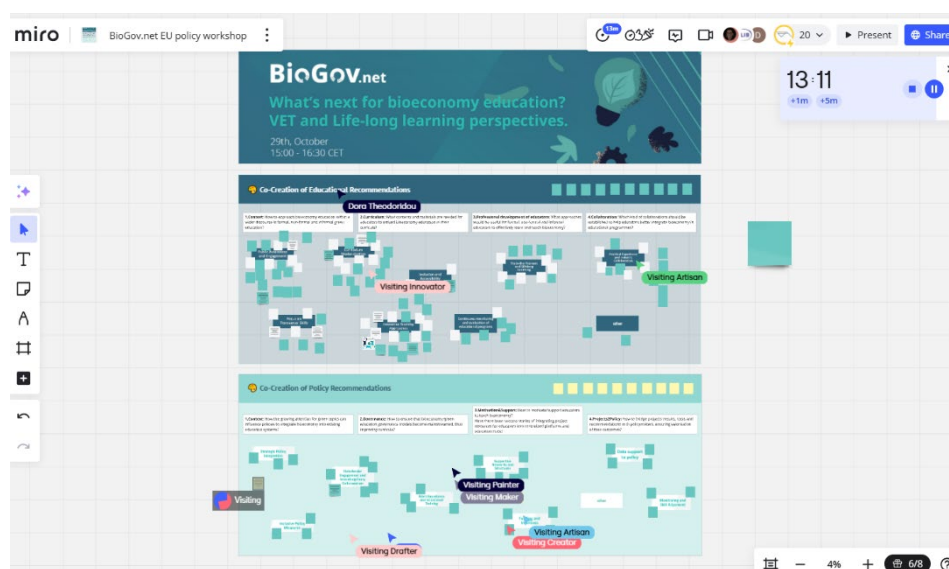


Figure 5 - Screenshot of the interactive session on MIRO

Below an overview of the questions that guided the two interactive sessions. These were designed to spark debate, foster collaboration, and trigger innovative thinking by encouraging diverse stakeholders to explore and address the challenges, opportunities,

and strategies for effectively integrating bioeconomy education and policy into current systems.

Table 1 - Guiding questions used during the interactive sessions in MIRO

Interactive Discussion 1 - Co-Creation of Educational Recommendations, <i>Guiding questions</i>	Interactive Discussion 2 - Co-Creation of Policy Recommendations, <i>Guiding questions</i>
• Context: How to approach bioeconomy education within a wider discourse in formal, non-formal and informal green education? • Curriculum: What contents and materials are needed for educators to embed bioeconomy education in their curricula? • Professional development of teachers: What approaches would be useful for formal, non-formal and informal educators to effectively learn and teach bioeconomy? • Collaboration: Which kind of collaborations should be established to help educators better integrate bioeconomy in educational programmes?	• Context: How the growing attention for green topics can influence policies to integrate bioeconomy into existing education systems? • Governance: How to ensure that bioeconomy/green education governance models become mainstreamed, thus improving curricula? • Motivation&Support: How to motivate/support educators to teach bioeconomy? E.g. a recognition scheme with certificates; resources into national platforms: Have there been success stories of integrating project resources for educators into national platforms run by their government? Are the project participants familiar with centralised environmental education hubs, where their project resources could be integrated? • Projects2Policy: How to bridge projects' results, tools and recommendations with policymakers, ensuring valorisation of their outcomes?

Workshop Participation: 94 registrations from 28 Countries and finally bringing together 60 active participants from 34 EU projects and initiatives, representing diverse expertise and perspectives.

5.2.2 Results of the first workshop (educational and policy recommendations)

The key insights and recommendations are included in this [public factsheet](#) and also listed below, following the two dimensions addressed during the workshop (education and policy).

Education-Focused Recommendations

Public Awareness and Engagement:

- Promote bioeconomy in the **wider discourse of environmental literacy** through **community education and engagement activities** involving local actors (e.g. through Living labs, citizen science, experiential learning) to support the **citizens and students in taking an active role** in the transition.
- **Take stock** from previous EU funded and regional experiences (including materials, educational packages, guidelines for training and mentoring programmes, platforms, etc.)

Skills needed:

- Bioeconomy transition requires **transversal skills like critical thinking, innovation thinking, entrepreneurship, and system thinking**.
- **Foster holistic understanding** to meet the **complexity** of the bioeconomy education.
- Connect bioeconomy education response with real world issues and **local skill needs** for the circular bioeconomy and bio-based sectors.

Curriculum modernization:

- Circular bioeconomy should be treated as **meta skill in existing curricula** across all educational levels.
- Promote **interdisciplinarity** and **crossover programs** with education providers, industry and local administration **to respond to evolving industrial and market demands**.
- Foster **co-creation of innovative curricula**.

Innovative teaching approaches:

- Promote **innovative approaches (formats and models)** to address challenges and respond to opportunities (Ideas incubators, problem-solving oriented teaching, coaching, Lab Works, simulations, Arts-based methods, site visits, experiential learning, peer learning and interdisciplinary learning and collaborative learning communities).

Inclusion and accessibility:

- Promote **tailored formats** (Adaptable Course Content, visual storytelling, Art, Virtual Living Labs) to meet the needs of specific marginalized or disadvantaged groups (incl. Primary sector, NEETS, migrants) and integrate underrepresented groups into the workforce.

Continuous monitoring and evaluation of educational programs:

- Promote the regular **assessment** of bioeconomy education programs to ensure that they **remain relevant and effective** and to **inform the design of innovative curricula**.
- Develop assessment tools to **measure the impact of bioeconomy education** on students' knowledge and skills.

Train the Trainers and LLL:

- Support **continuous professional development** for educators at various levels, including informal and non-formal education recognized with micro-credentials and certifications.
- Teachers should be **the first to be educated** in these complex topics and **equipped with actionable lesson plans, resources and toolkits** (in local languages).

Practical experiences and collaboration with industries:

- **Break down silos**, promoting partnerships and alliances with industry, educators, local communities, environmental organizations, etc. to **identify systemic interrelations**, better **align education with real labour market needs** and **implement hybrid education programs**.
- Support the creation of **multi-actor Regional Hubs** to connect education with **local policy priorities**.

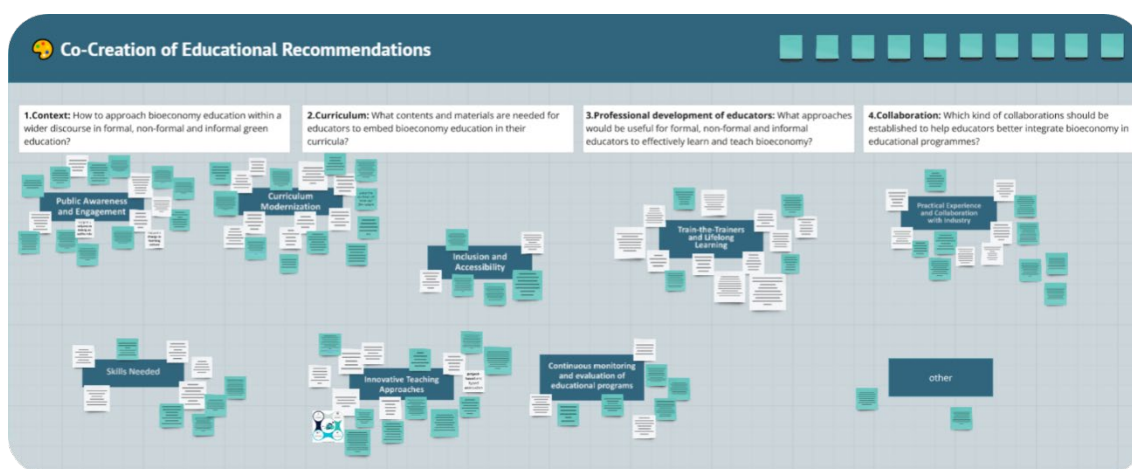


Figure 6 - Screenshot for the Educational Recommendations co-created on MIRO

Policy-Focused Recommendations

Strategic Policy integration:

- Facilitate **multi-ministerial approach** to ensure **cross-sectoral collaboration** and **coherence** for bioeconomy education at local, regional, and EU level.
- Embed bioeconomy knowledge into the curricula **across all educational levels** to ensure students gain practical and theoretical skills.
- Specific **policy recommendations must coincide with curriculum reform** to be actionable.

Inclusive Policy measures:

- Maximise the opportunities for **inclusive growth through bioeconomy education**.
- Include **bioeconomy education in public schools at all levels** to make bioeconomy and sustainability topics accessible to students across diverse socioeconomic backgrounds.
- Target educational offer to attract individuals from rural and underrepresented communities, **ensuring a diverse talent pipeline**.

Stakeholder engagement:

- Engage stakeholders in **defining educational priorities** to respond to **different needs along the whole value chain**.

- Support the creation of **Interdisciplinary Learning Hubs**, fostering the collaboration across disciplines, promoting knowledge transfer from industry to education and ensuring that educational opportunities are aligned with bioeconomy political and industrial agendas.

Work experience and vocational training

- Foster the above-mentioned partnership to facilitate **more adaptive systems** like collaborative learning hubs, apprenticeships, and vocational training focused on bioeconomy.

Supportive networks and structures:

- Support the **dissemination of success stories, tools and resources**, through **knowledge platforms** supported by governments.
- **Multidisciplinary bioeconomy HUBs** can play the role of mentors to support industries, policy makers and educators in integrating the bioeconomy in their practice.
- Enhance the role of **connectors** and **ecosystem facilitators** promoting **dialogue and mutual learning** among stakeholders.

Funding and incentives:

- **Bioeconomy LLL and VET education should be a priority** for future EU Funding.
- In addition, **new business models and public-private partnerships** should be used to support long-lasting initiatives.
- Simplify legislative processes to **unlock funding for smaller, local initiatives**.
- Provide recognition scheme through **certificates and credits for educators and professionals**

Data support to policy:

- Boost **awareness and empowerment of policy actors** with regards to the circular bioeconomy.
- Provide **systematic data collection for better strategic planning** and **evidence-based guidance** for future policies and initiatives in bioeconomy education (mapping impacts of successful policies, regional needs and gaps, training programs, initiatives, case studies and good practices).

Monitoring and skill alignments:

- **Monitoring** labor market trends and local bioeconomies through observatories and platforms **to bridge skill gaps**.

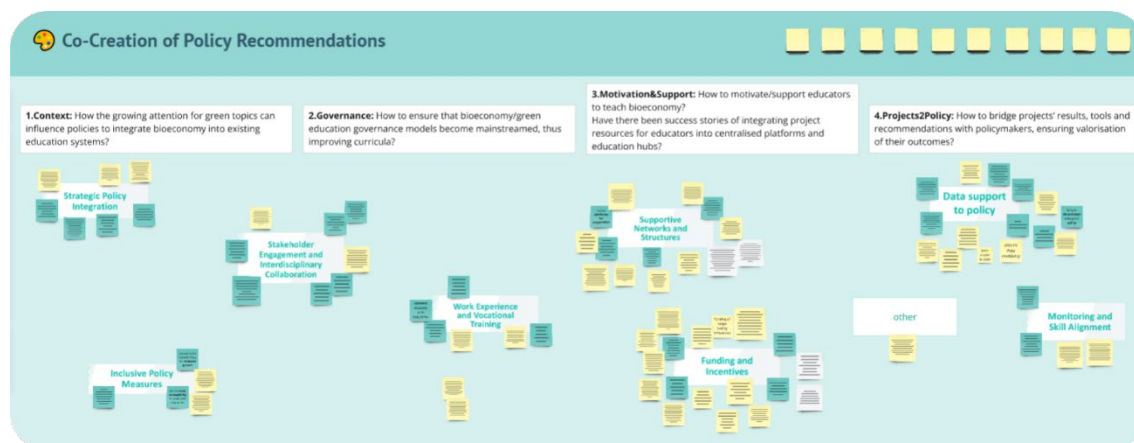


Figure 7 - Screenshot for the Policy Recommendations co-created on MIRO

The **outcomes of this collaborative workshop were showcased to around 100 experts in bioeconomy education participating in the high-level event “Bioeconomy education to enable the transition to a competitive, regenerative, and fair (bio)economy. Building the next union of skills in the bioeconomy”, organized in Brussels by the European Commission’s DG Research & Innovation on 20th November 2024, towards the revision of the [European Bioeconomy Strategy](#).**

5.3 Second European mutual learning co-creation workshop structure

Objectives & Strategic Context

The second European Mutual Learning Co-Creation Workshop, titled “*Impact Assessment and its Role in Policymaking: Co-Designing Bioeconomy Education and Training in Europe*”, was held online on the 31st of March 2025. Organised as part of Task 5.2.1 (mutual learning) and aligned with the strategic objectives of Task 5.3 (impact assessment), this workshop marked a second key milestone in strengthening the evidence-based foundations of bioeconomy governance, particularly within education and training systems.

The workshop served as both a validation platform for the outcomes to BioGov.net’s impact assessment study and as a collaborative forum to align educational and policy recommendations with this methodology. It promoted a holistic, participatory, and multidimensional understanding of impact – one that encompasses not only environmental and economic indicators but also social, cultural, and educational dimensions.

The workshop had the following core objectives:

- **Validation of Impact Assessment Study Results:** Through participatory methodologies, the workshop facilitated the validation of the impact assessment outcomes, designed to evaluate effects across environmental, economic, social, and cultural dimensions. This process aimed to ensure the assessment’s capacity to measure the long-term relevance, scalability, and inclusivity of actions initiated within the CoPs.
- **Refinement of Policy and Training Recommendations:** Building on stakeholder feedback and preliminary findings from the BioGov.net impact study, the workshop provided an opportunity to refine previously developed policy and training recommendations. The goal was to align these recommendations with the emergent impact framework, thereby enhancing their internal consistency, empirical robustness, and strategic applicability.

Expected and Achieved Outcomes

The workshop was successful in generating the following outputs, each aligned with BioGov.net’s objectives under WP5:

1. **Validated Impact Assessment Study Results:** Participants reviewed a draft impact assessment framework developed by the University of Bologna, grounded in the Theory of Change model (see D5.1). The model traced the pathways from project inputs and activities to short-, medium-, and long-term

outcomes, identifying key indicators, assumptions, enablers, and barriers. It was designed to assess impacts on sustainability literacy, stakeholder collaboration, social inclusion, and the integration of arts and cultural sectors in bioeconomy education.

2. **Refined Policy and Training Recommendations:** Building upon the outputs from the first co-creation workshop, participants contributed to the alignment of previously developed educational and policy recommendations with the emerging impact assessment framework. The workshop also ensured that the recommendations were both empirically grounded and strategically responsive to the multidimensional nature of impact envisioned by the project.
3. **Enhanced Stakeholder Ownership and Engagement:** Participants reported increased understanding of and commitment to the concept of impact-driven education and governance. This reinforced the participatory ethos of BioGov.net and deepened the collaborative networks initiated during the first workshop.

5.3.1 Report of the second European mutual learning co-creation workshop “Impact Assessment and its Role in Policymaking: Co-designing Bioeconomy Education and Training in Europe”



Figure 9 - Banner of the workshop

Key Presentations and Expert Contributions

The workshop opened with insightful contributions from leading experts and institutions, which framed the importance of impact assessment in policymaking and provided a foundation for the subsequent interactive sessions. Key presentations were by:

- **Giuseppe Pellegrino (European Commission)** delivered a keynote outlining the European Commission’s updated policy agenda for the bioeconomy and emphasized the increasing relevance of systemic impact assessment mechanisms to support responsive governance models.
- **Yaprak Kurtsal (University of Bologna)** presented the BioGov.net Impact Assessment Study, introducing a participatory methodology grounded in the Theory of Change (ToC). She outlined the co-created logic model that links project actions to desired societal impacts across key domains: sustainability literacy, inclusivity, stakeholder collaboration, and arts-based innovation.
- **Davide Viaggi (University of Bologna)** reflected on the transition from project-specific insights to broader policy relevance, advocating for stronger links between impact evidence and policy feedback loops at regional and European levels.

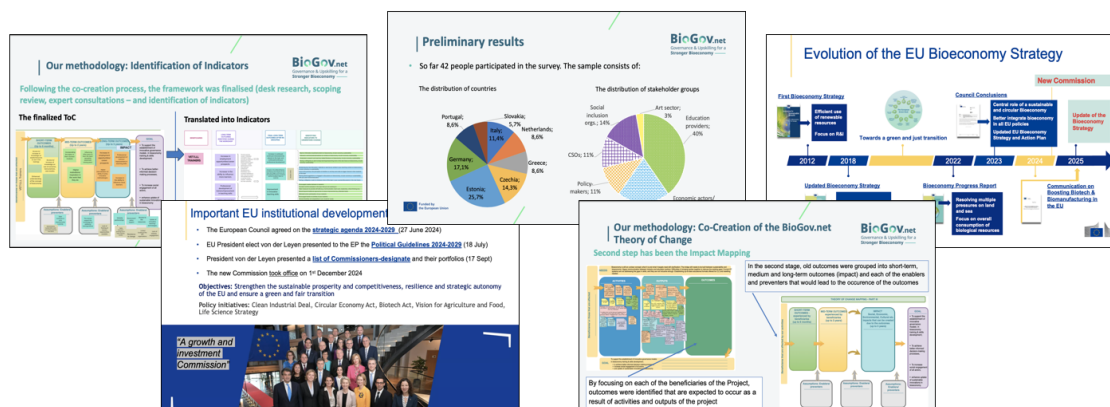


Figure 10 - Keynote Presentations by EC Representative and BioGov.net Partners

Interactive Co-Creation Session

Following the presentations, participants engaged in the second part of the workshop – a structured, two-phase interactive session conducted via online collaborative platforms Mentimeter and Miro. This session aimed to validate the preliminary findings of the BioGov.net impact assessment study and to co-design policy implications and governance strategies aimed at strengthening the integration of bioeconomy education and training in policymaking processes.

Interactive Session Structure

Stage 1: Validation of Impact Assessment Results

Online tool used: Mentimeter

The first interactive session focused on validating the preliminary findings of the BioGov.net Impact Assessment Study by gathering structured feedback from workshop participants. Using **Mentimeter**, an online audience engagement tool, participants were invited to reflect on the relevance, clarity, and policy applicability of the presented findings.

A diverse set of question types – ranging from scaled responses and multiple choice to word clouds and open-ended prompts – **was carefully selected not only to elicit meaningful feedback, but also to maintain a high level of engagement among participants**. This approach ensured the collection of both quantitative and qualitative data while creating an interactive and thought-provoking environment.

This session provided essential validation and user-oriented refinement of the Theory of Change-based framework and its accompanying indicators. The feedback also **revealed stakeholders' priorities and identified areas requiring additional attention for policy relevance and strategic implementation**.

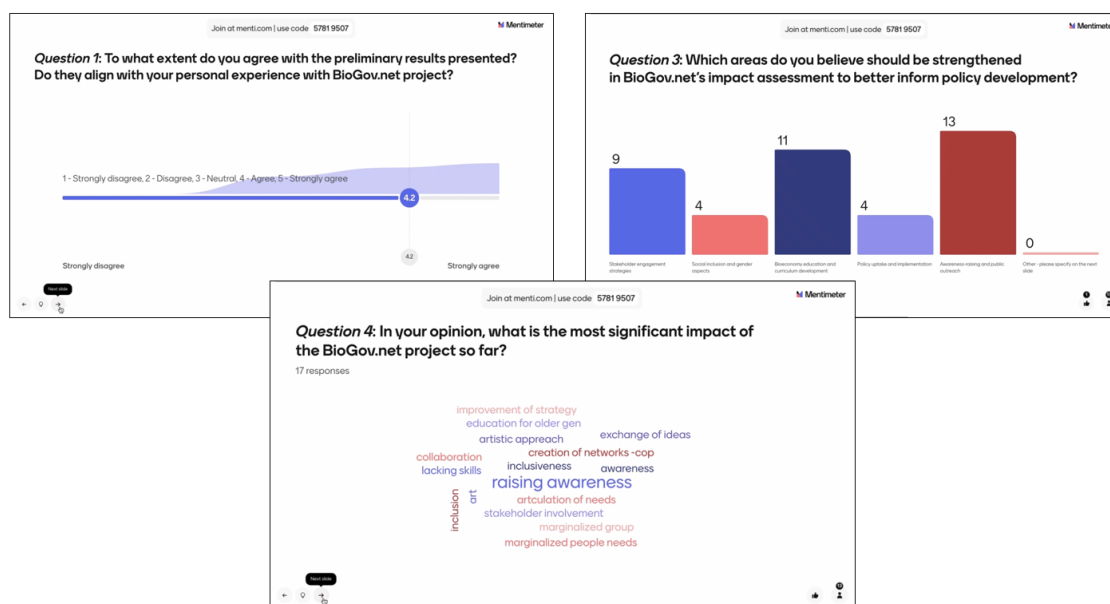


Figure 11 – Screenshot of the First Interactive Session on MentiMeter

Stage 2: Co-Creation of Policy and Governance Recommendations

Online tool used: Miro

The second session **transitioned from validation to co-creation**, focusing on how to embed impact-oriented thinking into the design and governance of bioeconomy education and training policies. Conducted via the collaborative whiteboard tool [Miro](#), the session facilitated an **open, visually structured discussion**. Participants contributed insights into governance mechanisms, policy frameworks, and institutional responsibilities that could support the uptake and systematic use of impact assessment findings.

This session enabled participants to collectively explore and articulate practical strategies for embedding impact-informed governance practices within educational and training systems. The outputs contributed directly to the refinement of BioGov.net’s policy recommendations and informed the project’s broader goal of promoting adaptive, inclusive, and data-driven governance in the bioeconomy sector.

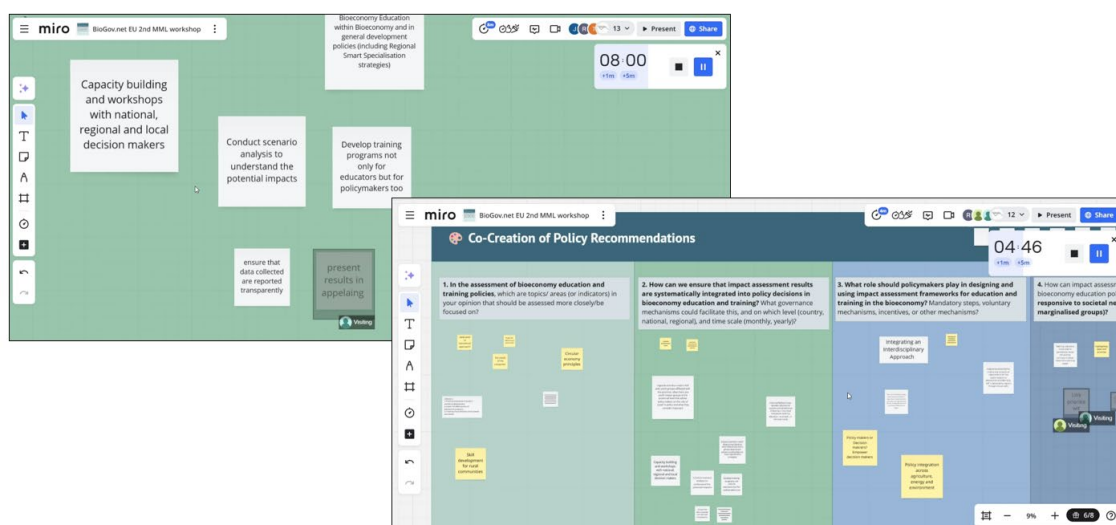


Figure 12 – Screenshot of the Second Interactive Session on MIRO

The following overview in the Table 2 presents the specific guiding questions used during the interactive sessions, which were designed to achieve two primary goals: first, to validate the preliminary results of the BioGov.net impact assessment study; and second, to collaboratively refine the project's policy and training recommendations. These questions encouraged participants to reflect critically on the applicability of the impact framework and to co-develop actionable insights for enhancing the effectiveness, inclusivity, and responsiveness of bioeconomy education and governance across Europe.

Table 2 - Guiding questions used during the interactive sessions – Stage 1 and Stage 2 – in Mentimeter and MIRO

Stage 1: Validation of Impact Assessment Framework Results <i>Online tool used – Mentimeter</i>	Stage 2: Co-Creation of Policy and Governance Recommendations <i>Online tool used – MIRO</i>
Question 1: To what extent do you agree with the preliminary results presented? Do they align with your personal experience with the BioGov.net project? Answer Type: Scale – “Strongly Agree” to “Strongly Disagree” Question 2: Do you think the results of the BioGov.net Impact Assessment provide useful insights for policymaking in bioeconomy education and training? Answer Type: Single Choice – • “Yes, definitely” • “Yes, to some extent”	Question 1: In the assessment of bioeconomy education and training policies, which are topics / areas (or indicators) in your opinion that should be assessed more closely / be focused on? Question 2: How can we ensure, that impact assessment results are systematically integrated into policy decisions in bioeconomy education and training? What governance mechanisms could facilitate this, and on which level (country, national, regional) and time scale (monthly, yearly)?

• “No, not really” • “Not sure” • Optional: Please elaborate on your answer (open-ended response). Question 3: Which areas do you believe should be strengthened in the BioGov.net’s impact assessment to better inform policy development? Answer Type: Multiple Choice – • “Stakeholder engagement strategies” • “Social inclusion and gender aspects” • “Bioeconomy education and curriculum development” • “Policy uptake and implementation” • “Awareness-raising and public outreach” • “Other - please specify (open-ended response)” Question 4: In your opinion, what is the most significant impact of the BioGov.net project so far? Answer Type: Word Cloud / Open-ended response. Question 5: Based on the presented Impact Assessment results, what do you see as the biggest challenge in improving bioeconomy education and training? Answer Type: Open-ended response.	Question 3: What role should policymakers play in designing and using impact assessment frameworks for education and training in bioeconomy? Mandatory steps, voluntary mechanisms, incentives, or other mechanisms? Question 4: How can impact assessment contribute to making bioeconomy education policies more adaptive and responsive to societal needs (as well as need of marginalised groups)?
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Workshop Participation and outcome:

The event attracted **55 registrations**, ultimately bringing together **38 active participants**, including representatives from EU-funded projects, national authorities, research institutions, education providers, and civil society organisations.

The workshop succeeded in:

- **Validating the preliminary impact assessment results** through diverse stakeholder lenses;
- **Refining educational and policy recommendations** based on real-world insights;

- **Strengthening stakeholder engagement and expanding the BioGov.net network**, by fostering meaningful exchanges among participants from policy, education, civil society, and industry, and reinforcing collaborative links across Member States and associated projects

The outputs of this workshop directly informed Task 5.3 of the BioGov.net project and contributed to a more robust, accountable, and inclusive European bioeconomy education ecosystem.

5.3.2 Results of the workshop (policy recommendations on the impact assessment framework)

Policy Recommendations emerging from the 2nd MML workshop

Embedding impact assessment in governance and policy cycles

- Engage policy-makers early in the impact assessment process to improve relevance and uptake of findings.
- Translate assessment results into formats accessible for policy use, such as infographics and interactive tools.
- Ensure the systematic integration of assessment findings into decision-making at national, regional, and local levels.
- Establish feedback loops between educational systems, industry beneficiaries, and learners at all levels.
- Promote the use of scenario analysis to anticipate the effects of future bioeconomy education policies.

Building capacity for impact-oriented policy and practice

- Organise capacity-building activities and workshops targeting decision-makers at all levels (national, regional, local).
- Develop dedicated training programmes for policymakers, alongside those designed for educators and trainers.
- Invest in skills development for policymakers and educators to enable the design and implementation of robust impact assessments.
- Empower decision-makers by strengthening their ability to interpret, apply, and act upon assessment results.

Indicators and evidence for adaptive curriculum development

- Define indicators for:
 - Tracking employment trends and workforce development in the bioeconomy.
 - Assessing the effectiveness of educational programmes.
 - Monitoring the profitability of bio-based businesses.
- Use these indicators to periodically revise curricula in response to changing societal and labour market needs.
- Highlight existing gaps and emerging priorities to inform future revisions and investments.

Promoting inclusive and flexible learning pathways

- Support lifelong learning opportunities that are accessible to diverse learner profiles.
- Ensure the early integration of bioeconomy content in the education continuum.
- Promote experiential learning, particularly for marginalized groups, as a way to enhance engagement through hands-on approaches.
- Develop modular, flexible curricula that allow learners to tailor their educational journey to individual needs and career trajectories.
- Offer financial incentives and institutional support for the development of innovative programmes that reflect evolving social and economic realities.

Regional Responsiveness and Societal Anchoring

- Address regional differences and needs in both programme design and policy support mechanisms.
- Ensure the inclusion of company needs and circular economy principles in educational design and evaluation.
- Establish stronger links with youth advisory groups and other community-level actors to reflect local voices in policy priorities.
- Consider using everyday-life experiences as informal learning pathways in regions where formal education is less accessible.

Leveraging Incentives and Regulation to Drive Change

- Encourage the use of incentives and funding mechanisms (e.g., public support through regional calls) to embed sustainability in education.
- Explore the role of mandatory mechanisms where appropriate, ensuring bioeconomy education becomes a recognised part of community and national development strategies.
- Support interdisciplinary approaches and cross-sectoral integration (e.g., agriculture, energy, environment) in both policy and practice.

5.4 Yearly policy workshops

To ensure a continuous feedback loop between society and policymakers, the BioGov.net project organized three annual policy workshops. These workshops (Task 5.2.2) aimed to generate policy recommendations and best practice guidelines as *Actionable Knowledge* for stakeholders. Each workshop corresponded to a different phase of the project and supported the uptake of knowledge from other related projects, reinforcing the bioeconomy innovation ecosystem.

In recent months, WP5 leaders have focused on creating the conditions for BioGov.net to have a say in the most relevant events related to bioeconomy education—events that have played a key role in informing the education dimension of the ongoing bioeconomy strategy revision. BioGov.net has participated in various roles, including:

- as on-stage keynote speaker to present policy recommendations
- as invited expert in co-creation sessions organized by the European Commission
- as a featured project contributing to debates and sharing insights
- as an exhibitor showcasing the project's main outcomes
- at the project final event held during the week of **European Rural Circular Bioeconomy Conference** (on 13rd and 14th May in Brussels).

All the relevant events are reported in the following paragraphs.

5.4.1 The EU high-level policy workshop in bioeconomy education organised by the European Commission

On 20 November 2024, a delegation of BioGov.net project including FVA, AVANS, ART and members of the BioGov.net Communities of Practice, participated among the experts invited in the European Commission's DG Research & Innovation workshop in Brussels entitled “***Bioeconomy education to enable the transition to a competitive, regenerative, and fair (bio)economy. Building the next union of skills in the bioeconomy***”.

This event gathered around **100 experts in bioeconomy education** to discuss concrete future policy needs on this subject to be addressed in the **update of the [European Bioeconomy Strategy](#)**. Participants included high-level policy makers such as **Joanna Drake** – Deputy Director-General: Planet, People and Science for Policy – Directorate-General for Research and Innovation of the European Commission, **Peter Wehrheim** – Head of Unit, Bioeconomy & Food Systems – Directorate-General for Research and Innovation of the European Commission, **Giuseppe Pellegrino** – Policy Officer, Bioeconomy & Food Systems – Directorate-General for Research and Innovation of the European Commission, **Ioana Dewandeler**, Policy Officer Higher Education – DG Education and Culture of the European Commission and **Norbert Lins**, Member of the European Parliament (MEP).

In this occasion, the outcomes of the **BioGov.net EU workshop “What's Next for Bioeconomy Education?”** were presented with a focus on the **educational and policy recommendations for future VET and Life-Long Learning strategies**.



Figure 8 - Presentation of the BioGov.net recommendations at the EC policy workshop

Finally, **world café breakout groups** were organised among the invited experts, allowing focused group discussions on critical topics. Participants divided in the different tables explored questions such as “What role can bioeconomy education play in upskilling the bioeconomy workforce of our society?” and “What policy actions can support these efforts?”. These intimate, collaborative dialogues allowed for a deeper dive into challenges and opportunities, generating targeted insights and actionable recommendations to bridge education, workforce development, and policy support for the bioeconomy at different educational levels.



Figure 9 - Picture of the world café breakout session

5.4.2 BioGov.net participation in the GenB-BioBeo final policy event

On 10 April 2025, BioGov.net participated in the **GenB-BioBeo** joint final event “**Bridging generations: Education and Policy to shape a sustainable future**” in Brussels, where both projects explored how education and policy can drive the transition towards a sustainable and circular bioeconomy.



Figure 10 - Banner of the GenB-BioBeo final event

The day was structured around two key sessions. The first one focused on **education as a driving force** for the circular and sustainable transition, with keynote contributions from a diverse range of EU-funded initiatives including GenB, BioBeo, BioGov.net, SLEs, CLEVERFOOD, LOESS, and ProBleu. Speakers highlighted how education can equip the next generation with the tools and mindset to lead the green transition.



Figure 11 - Picture from the first session with key projects in bioeconomy education

The second part of the event featured **policy recommendations** from GenB and BioBeo, followed by a dynamic **youth-policy dialogue**. In a lively exchange, **GenB Ambassadors** and **EU Young Ocean Advocates** engaged directly with representatives from the **European Commission's DG RTD and DG AGRI**, as well as the **Circular Bio-based Europe Joint Undertaking (CBE JU)**. This dialogue reinforced the importance of youth participation in shaping policies that directly affect their future.



Figure 12 - Picture of the second session on policy recommendations and youth-policy dialogue

A standout moment of the event was the **“Education in Action” experiential exhibition**, where visitors could explore a wide range of interactive tools and materials developed by GenB, BioBeo, and sister Horizon Europe projects: BioGov.net, SLEs, CLEVERFOOD, LOESS, NBSEduWorld, ProBleu, Circular Schools, Life Terra, BlueMissionMed, and BlueRev. The exhibition showcased creative educational approaches to engage citizens and raise awareness around bioeconomy and sustainability topics.



Figure 13 - BioGov.net exhibition corner

5.4.3 BioGov.net final event

On May 14th, 2025, the BioGov.net project reached a pivotal milestone with its final event, **“Growing Together: Art, Inclusion & Green Skills,”** held in Brussels.

The event brought together a diverse audience of policymakers, educators, researchers, artists, and practitioners, creating a space for reflection, co-creation, and exchange. It served not only as a celebration of achievements but also as a forward-looking moment to mobilize the tools and insights developed through the project for broader regional impact.



Figure 14 - Banner of the BioGov.net final event

In her opening remarks, the project coordinator from CIVITTA welcomed participants with a strong message on the importance of collaboration and inclusivity in addressing today's ecological and social challenges.

One of the highlights of the day was the presentation of **policy and education recommendations** by FVA Team. These insights, developed through cross-country research and stakeholder engagement, offer practical pathways for integrating bioeconomy into regional planning and curricula. They advocate for interdisciplinary education, lifelong learning, and the active participation of underrepresented groups in shaping green futures.

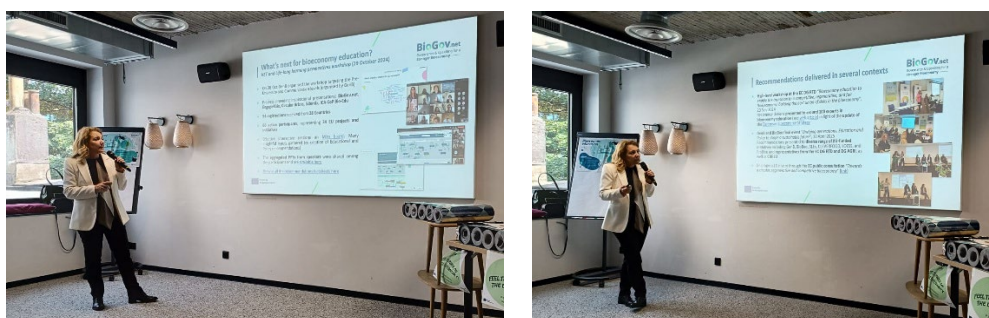


Figure 15 - Pictures from the presentation of the policy and education recommendations

Interactive sessions followed, designed to turn insights into action. The **“Designing a Bio-Based Education Programme”** session lead by AVANS, sparked vibrant discussions on pedagogical innovation, the role of experiential learning, and how to link local materials and practices to global sustainability goals. The session also included the presentation of the final **BioGov.net guidelines for training and mentoring programmes**.



Figure 16 - “Designing a Bio-Based Education Programme” session

In parallel, the “**Art Meets Bioeconomy**” session paired the presentation of the **BioGov.net methodology to link Art and Bioeconomy Education** with an interactive session co-lead by FVA and BTG, which invited participants to engage with the bioeconomy through a sensory and emotional lens. Featuring **do-it-yourself biomaterials samples and hands-on exploration**, the session emphasised the value of artistic practices in shifting perceptions, telling new stories, and making sustainability more tangible and inclusive.

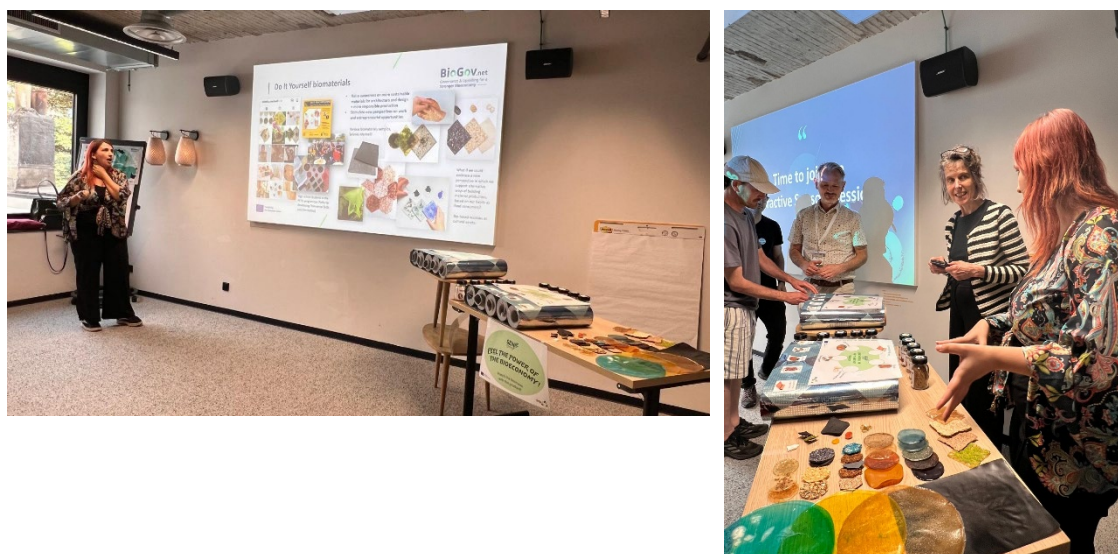


Figure 17 - “Art Meets Bioeconomy” session with the interactive sensory experience

Finally, throughout the day, participants explored the BioGov.net Exhibition Corner, which showcased the project’s key outputs and results along with innovative and even disruptive bio-based gadgets, such as the cotton towels printed with the final project’s recommendations in bioeconomy education&policy (see picture below), to symbolically integrate them into our daily actions.



Figure 18 - The BioGov.net exhibition corner with eco-friendly kitchen towels with the project's final recommendations

The event concluded with a wrap-up session focused on final reflections and future opportunities. Speakers emphasised the need to continue fostering networks and communities of practice beyond the life of the project. The tools and resources developed by BioGov.net are ready to be adopted and adapted by regions across Europe, offering a scalable model for inclusive green transition.

6. Impact assessment framework and action plan

6.1 Introduction

This section sets out the rationale behind conducting an impact assessment in the context of bioeconomy education and training (ET). It is structured in two parts: the first outlines the broader conceptual and policy context that underscores the relevance of impact assessment in this field, while the second details the specific objectives of Task 5.3 within the BioGov.net project.

To support clarity and coherence, the chapter begins with a conceptual overview, followed by a description of the methodological framework, the survey design and implementation process, and the analytical approach employed. This analysis is complemented by stakeholder-specific findings and concludes with policy-oriented reflections that highlight the implications of the results for governance of bioeconomy ET.

6.1.1 Background

In an era defined by evolving social, economic, and environmental paradigms, the importance of conducting impact assessments is of paramount importance. Organizations across the spectrum, from private businesses to governmental bodies are increasingly recognizing the need to assess the consequences of their projects, actions and/or interventions on the society and the planet. This compelling need arises from a growing consciousness of corporate social responsibility, growing awareness of populations and societies in demanding transparency and just processes, and the recognition that a project or activity's impact transcends its immediate outcomes. Failure to do so can result in reputational damage, regulatory challenges, and ultimately, a loss of stakeholder trust on the side of enterprises (Aras & Crowther, 2009). Moreover, these assessments help organizations refine their strategies, identify areas for improvement, and enhance their overall effectiveness (Porter & Kramer, 2011).

Moreover, the evolving expectations of funders – both public and private - have significantly elevated the importance of demonstrating measurable societal impact (Burns *et al.*, 2016). Increasingly, funding bodies require evidence that supported projects generate positive societal outcomes or mitigate potential negative effects. This shift reflects a broader transition towards impact-oriented funding models, including the rise of impact investing and societal entrepreneurship, where financial returns are explicitly linked to social and environmental value creation (Austin, Stevenson, & Wei-Skillern, 2006).

Hence, organizations that can demonstrate their projects' capacity to create value for society are more likely to secure funding and investments. Transparent and methodologically sound impact assessments not only fulfil funders' expectations but also aid in building trust and accountability, fostering long-term partnerships (Owen, 2017).

In the context of bioeconomy, the significance of conducting impact assessments when designing an ET system is critical. Such assessments are pivotal for several reasons. Firstly, they serve as a means to identify and communicate the societal implications of cultivating a well-educated and skilled workforce in the bioeconomy sector. With an

increased level of skills, specialised knowledge (and awareness), the professionals and practitioners in the sector can be better equipped to understand, develop, and implement sustainable practices, thereby contributing to the attainment of bioeconomy objectives (European Commission, 2018). Moreover, an enhanced ET system, coupled with provisions for lifelong learning, fosters adaptability and responsiveness to evolving challenges and technological advancements, making the sustainability transition in bioeconomy more feasible (UNESCO, 2020). The dynamism of the bioeconomy field calls for continuous learning and adaptability, making robust ET systems a must for its long-term success. Conducting impact assessments in this area—whether at the local, national, or regional level—enables more effective and evidence-based policymaking. It leads to better informed decision- and strategy-making, and the possibility to update these, when the intended results are not achieved; last but not least, to be able to communicate the importance of these efforts to wider audiences and stakeholders (including the funders).

6.1.2 Aim

In this direction, the overall aim of Task 5.3 (Impact assessment and recommendations) was to design and perform an impact assessment and robust evaluation of actions generated in each CoP (established within the scope of the BioGov.net project), to monitor, review and ensure their impact to bioeconomy and sustainability.

In this regard, recommendations were prepared based on social and economic barriers and potentialities (e.g. job creation capacity and its quality) to enable the transition towards socially and environmentally responsible systems (e.g. creation of novel governance models in training and re-skilling, corporate responsibility initiatives, support to educational and training initiatives), by ensuring inclusiveness of all actors (bio-based systems, NGOs, civil society, Cultural and Creative Industries, as well as marginalised groups).

6.2 Methodology

The methodology of this study was structured around several key components: a desk-based literature review to establish the conceptual and methodological foundation for the impact assessment; a co-creation workshop with project partners to develop the Impact Mapping using a ToC approach; an online survey to gather stakeholder input; and the analysis of both qualitative and quantitative data to inform policy recommendations.

The study began with a review of existing impact assessment methodologies and theoretical frameworks, with the aim of identifying an approach suitable for the objectives of the BioGov.net project. This literature review, which is presented in detail in Deliverable 5.1 (submitted in Month 18), served as the conceptual groundwork for the design of the study. Building on the findings of the review, and drawing on the expertise of the project team, the ToC approach was selected as the most appropriate framework for the impact assessment. The development of the BioGov.net Impact Assessment Framework followed, detailing the steps of the study in alignment with the ToC model. This included the co-creation of an impact map, the identification of intended outcomes, and the definition of corresponding indicators to measure those outcomes.

Using these indicators, a structured questionnaire was developed (by UNIBO) and deployed as an online survey (hosted on the BioGov.net website). Data collection targeted stakeholders involved in the CoPs across eight partner countries. The

responses were analysed using descriptive methods to identify patterns and insights relevant to the project's objectives.

In addition to the survey results, the outputs generated during the 2nd MML co-creation workshop - focused on impact assessment and policy recommendations - were integrated into the analysis. The final phase of the study involved synthesising all data sources to develop a coherent set of policy recommendations grounded in the empirical evidence and stakeholder input.

The remainder of this chapter provides a detailed account of the methodological process, including the co-creation and finalisation of the impact assessment framework, the selection of relevant impact indicators, the design and implementation of the online survey, and the subsequent analysis and interpretation of findings leading to the recommendations presented herein.

6.3 Impact Assessment Framework for BioGov.net Project

This section outlines the framework developed to assess the impact of the BioGov.net project. The impact assessment was designed to evaluate the project's influence on key stakeholder groups, with particular attention to those engaged through the CoPs established in each partner country. These stakeholders included education providers (educators and education managers), bioeconomy professionals, policymakers, civil society organisations, entities promoting social inclusion, representatives from the arts and culture sector, and funding bodies.

The objective was to assess the impact generated by BioGov.net's interventions and engagement efforts across the identified stakeholder groups, while also examining the project's broader influence on the bioeconomy ET landscape. The analysis encompassed not only individuals directly involved in CoP activities, but also those who engaged with the project indirectly through its outputs, resources, and dissemination channels.

The section opens with an explanation of the ToC logic model and the overall scope of the study. It proceeds by identifying the relevant stakeholders and beneficiaries, and mapping the project's key activities and outputs. The narrative then details the co-creation process through which the outcomes were defined, indicators were selected, and the survey instrument was developed for data collection.

6.3.1 Introduction of Theory of Change Logic Model

The Theory of Change (ToC) approach to planning, monitoring, and evaluation has become an increasingly recognised and essential practice in project and programme design (OECD, 2019). It involves articulating how change is expected to happen in a particular context, clarifying the roles of different actors in contributing to that change, and defining and testing the critical assumptions that underpin a project's logic. Often represented through visual roadmaps, a ToC outlines the logical sequence from inputs and activities to outputs, outcomes, and long-term impacts, providing a comprehensive framework for understanding and assessing change. ToC thinking is more than just a static framework; it is understood as an ongoing, iterative process that involves discussion, analysis, and learning (Vogel, 2012).

To guide the impact assessment of the BioGov.net project, a ToC approach was adopted to provide a structured way of mapping how project activities were expected to lead to

meaningful outcomes and long-term societal impact. While the full methodological rationale for this choice was outlined in Deliverable 5.1, this section presents its practical application within the framework of our study.

The simplified ToC model below illustrates the foundational logic of our approach. It begins with the identification of stakeholder needs and project activities, followed by the outputs generated, and concludes with the outcomes these are expected to produce. These outcomes form the key reference point for assessing the impact of the BioGov.net project. Importantly, the model also allows for feedback loops, enabling the reassessment of evolving needs and the effectiveness of the pathways established.

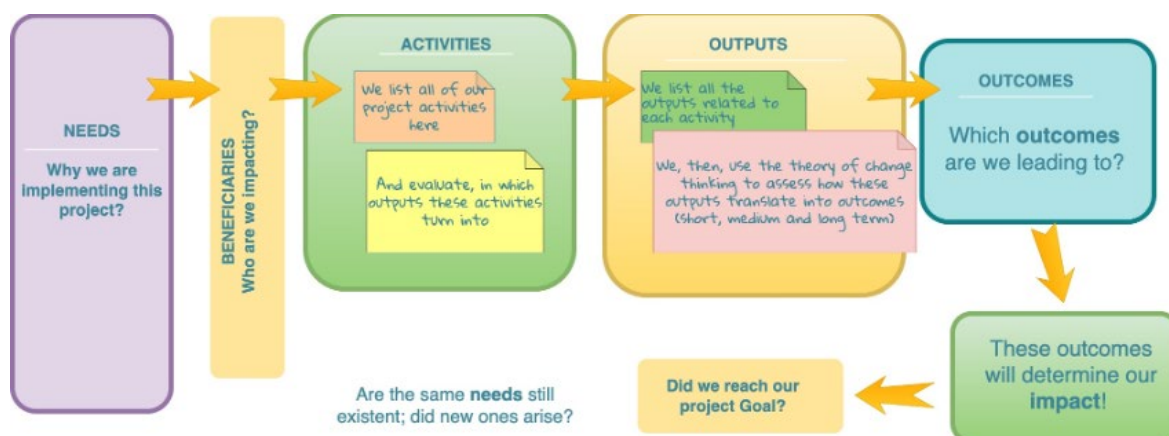


Figure 19 – A simplified representation of the Theory of Change logic used for BioGov.net

This visual framework served as the foundation for co-creating the project's impact map, identifying stakeholder-specific outcomes, and designing appropriate indicators for evaluation.

6.3.2 The scope of the Impact Assessment

A CoP refers to a group of individuals who share a common interest, passion, or concern, and who come together to deepen their understanding of the subject through collaborative learning and mutual exchange. By nature, CoPs function as communities that foster peer learning and shared identity, grounded in a common area of interest. Within the BioGov.net project, CoPs were conceptualised as regional co-creation labs operating through a multi-stakeholder approach, with each group comprising approximately 15-30 members from diverse sectors.

The activities foreseen for the CoPs in the BioGov.net project included:

- Establishing multi-stakeholder teams in each partner country;
- Analysing knowledge gaps, barriers, and enablers within the bio-based educational ecosystem;
- Identifying relevant actors and educational offers;
- Collecting and disseminating good practices and case studies;
- Supporting consultation mechanisms for the preparation of project guidelines;
- Providing policy recommendations at the national level;
- Collaborating closely with the Innovation Board to co-create input on training methodologies and provide structured feedback.

These CoP-based activities formed the backbone of the project's engagement with stakeholders, and were central to the development of an inclusive, practice-oriented impact assessment.

The Predictive Impact Assessment Approach

Given the timing of the study and the nature of the project's implementation stage, a **predictive impact assessment** methodology was selected as the most appropriate evaluation approach. This approach aims to estimate the potential outcomes and longer-term effects that may be realised if the activities initiated by the project are fully implemented and sustained over time.

As this form of assessment is inherently forward-looking, the evaluation focused on what is likely to happen rather than what has already occurred. The design of the data collection tools, particularly the online questionnaire, reflected this orientation. Stakeholders were asked to indicate not only what actions they had already taken as a result of their engagement with the project, but also what they were planning or intending to do in the following year. This allowed the assessment to capture both actual and anticipated changes, and to generate insights into the potential future impact of BioGov.net's activities.

The results presented in this report should therefore be understood as projections based on current engagement and intentions, illustrating the kinds of transformations that the project could catalyse if its momentum is sustained and its outputs are taken up in practice.

6.3.3 Identifying Beneficiaries

In order to assess change, it is necessary to include in the study, all beneficiaries that are expected to experience material changes as a result of our activities (i.e. relevant and significant outcomes) (Nicholls *et al.*, 2012).

The involvement of stakeholders and beneficiaries was a central element of the BioGov.net impact assessment. Stakeholder engagement was approached through multiple complementary channels, aiming to ensure both the inclusiveness and diversity of perspectives across regions and sectors.

One of the primary mechanisms for stakeholder engagement was the establishment of CoPs in each partner country. These CoPs functioned as regional multi-stakeholder labs, bringing together representatives from education, industry, civil society, policy, and other relevant sectors. Throughout the project, CoP members interacted and exchanged through a series of workshops and events, both in online and face-to-face formats, depending on the nature and context of each gathering. These meetings facilitated collaborative learning, sharing of good practices, and co-creation of knowledge and recommendations.

In addition to the CoPs, stakeholders were also engaged through the Innovation Board, which brought together experts and representatives from key institutions to provide strategic input to the project. Regular meetings and exchanges with Innovation Board members provided an important space for reflecting on project developments and refining the direction of activities based on expert feedback.

A further layer of stakeholder involvement was ensured through dissemination and outreach activities, including the wide circulation of project materials, reports, and outputs via online channels, particularly through social media. These efforts helped

extend the project's visibility and reach, allowing stakeholders who were not directly involved in the CoPs or other structures to engage with the project's themes and findings.

Taken together, these multiple pathways of engagement created an inclusive ecosystem of participation around the BioGov.net project, ensuring that its impact assessment could draw on a diverse and representative range of stakeholder insights.

6.3.4 Impact Mapping and Finalisation of the Theory of Change

The development of the BioGov.net ToC up to the stage of outcome identification was carried out through a structured and iterative process that combined desk research, an in-depth review of project documentation, and internal consultations among the project partners. The intention was to develop a comprehensive understanding of how the project's interventions could lead to meaningful change in the domain of bioeconomy ET, while grounding the assessment in realistic and context-sensitive pathways of impact.

The main steps to designing an impact map are the following: inputs, outputs, outcomes and impacts. This relationship between input, output and outcomes is also known as a logic model. Understanding how your interventions through inputs, outputs and outcomes make a difference in the world/society and how these advance your mission (or, how they create impact) is your theory of change (OECD, 2019). However, even before these steps, identification of beneficiaries is crucial.

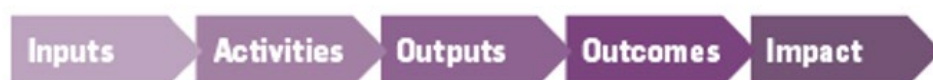


Figure 20 – The main steps to designing and impact map using the Theory of Change approach

i. Identification of Beneficiaries

At the heart of this process was the identification of stakeholders and beneficiaries. These included the members of the CoPs mobilised in each of the eight partner countries, as well as adult and lifelong learners reached through the project's outreach. In addition, policy-makers who were engaged or influenced by the project were considered relevant stakeholders, alongside other actors involved in or affected by the activities of the project. It is estimated that between 15 to 30 stakeholders were engaged per country, although the final numbers and extent of reach will be further validated in the concluding reporting phase of the project.

ii. Inputs

In terms of inputs, the study intentionally opted not to quantify or analyse financial and economic dimensions such as Social Return on Investment (SROI) or cost-benefit ratios. Instead, a qualitative and narrative approach was adopted, more suitable to the scope and purpose of the BioGov.net project. The key inputs were understood to include the Project funding received, as well as the time, expertise, and sustained efforts contributed by the project teams across partner countries. The emphasis of the assessment was placed not on input-output ratios, but on tracing the intended outcomes of the project and defining the indicators necessary to evaluate them.

iii. Activities

In the ToC approach, activities refer to the concrete actions and interventions implemented by a project in order to achieve its intended outcomes. These are the

operational steps taken to mobilise resources, engage stakeholders, and deliver outputs. Activities are positioned after the identification of needs and target groups, and they form the bridge between inputs and outputs. They are essential in creating the necessary conditions for change, setting in motion the processes that will eventually lead to meaningful and measurable outcomes.

Within the BioGov.net project, a wide range of activities were undertaken across eight partner countries. These aimed to build inclusive regional communities of practice, foster stakeholder collaboration, support governance innovation, and prepare practical tools and frameworks to enhance ET in the bioeconomy sector.

The main activities implemented in the project include:

- Establishment of CoPs: Regional multi-stakeholder co-creation labs were launched to serve as key platforms for dialogue and collaboration.
- Engagement of stakeholders and practitioners: Stakeholders from diverse backgrounds, including education providers, policy-makers, CSOs, and industry, were identified and mobilised.
- Organisation of workshops and co-creation events: Local and transnational events were conducted to facilitate knowledge exchange, co-design, and feedback collection.
- Knowledge sharing events and mutual learning formats: The project facilitated thematic exchanges and cross-country learning opportunities.
- Preparation of governance framework proposals: These were designed based on stakeholder input to improve inclusivity and systemic thinking in bioeconomy governance.
- Development of foundational models for governance: Conceptual and practical frameworks were developed to support long-term governance innovation.
- Collection and validation of data, case studies and good practices: Regional and sector-specific information was compiled to inform the guidelines and assessments.
- Creation and dissemination of online surveys: Tools were designed to collect stakeholder perspectives and validate preliminary findings.
- Design of indicators and data collection tools: Metrics were developed to assess the impact of activities and guide evaluation.
- Design and delivery of communication and outreach activities: Efforts were made to raise awareness and share findings with a broader audience through campaigns, online platforms, and events.
- Preparation of training and mentoring materials: Practical resources were created to support educational and institutional capacity building.
- Implementation of stakeholder-specific activities: This included the setup of Innovation Boards, meetings with policy-makers, and targeted engagement with marginalised groups.

These activities laid the foundation for the project's outputs and subsequently its expected short-, medium-, and long-term outcomes.

iv. Outputs

The outputs of the project were then mapped as the direct, tangible results of its activities, the foundational layer upon which longer-term outcomes could emerge. These included, among others, the identification of relevant stakeholders within regional bioeconomy

ecosystems, the establishment of eight CoPs, and the design of dedicated strategies to ensure the inclusion of marginalised groups in ET contexts. The project also developed innovative governance models for bioeconomy ecosystems, and identified future-oriented job profiles and skill needs within the sector. Further outputs involved the preparation of governance and training guidelines, which were validated in diverse national contexts.

Additionally, a range of engagement formats were implemented throughout the project's lifecycle. These comprised focus groups, co-creation workshops, co-design workshops, and regional policy workshops, all aimed at facilitating multi-stakeholder dialogue and knowledge co-production. The project also invested significantly in dissemination, with communication activities reaching a wide audience, including policy-makers and marginalised groups, thereby raising awareness and enhancing the visibility of bioeconomy ET. The Project outputs included:

- 8 regional reports created that map the bio-based education ecosystem in each partner region
- 17 case studies identified and validated
- 40 job profiles identified that are relevant to the bioeconomy
- 20 good practice cases identified and described
- Guidelines for governance frameworks prepared and published
- Guidelines for training and mentoring developed and validated
- 8 regional policy workshops conducted
- 8 co-creation workshops and 8 focus groups conducted
- 16 co-design workshops carried out
- Framework for feedback loops between stakeholders and policymakers developed
- Strategy for inclusive outreach and marginalised groups engagement established
- Communication and dissemination materials shared broadly
- Innovation Board set up and activated in each CoP
- Stakeholder engagement activities with CoPs, VET providers, industry, SMEs, NGOs, and innovation centres
- Structured recommendations for local and regional policy integration prepared

Together, these components formed the basis for the identification of outcomes, setting the stage for the development of a robust impact pathway tailored to the project's objectives.

v. Outcomes

Outcomes are the observable effects resulting from the outputs of an intervention. In other words, they represent the changes that occur as a consequence of a project's activities. Within the scope of the BioGov.net Impact Assessment study, the identification of outcomes was conducted through a comprehensive and participatory process.

Given the complexity and importance of this task, a **collaborative approach** was adopted to ensure the robustness and inclusiveness of the outcome mapping. To this end, a **co-creation workshop** was organised with the active participation of all project partners and Community of Practice (CoP) leaders.

The process is described below in three main stages:

- preparation for the co-creation workshop,
- implementation of the co-creation session, and
- finalisation and systematisation of outcomes through impact mapping.

Preparation for the co-creation workshop

The University of Bologna (UNIBO) team led the preparation phase through a detailed review of the project's activities and expected outputs, with the objective of visually illustrating the project's theory of change up to the point of outcome generation. This preparatory work was essential to guide and facilitate an effective co-creation process.

Two posters were designed as core materials for the workshop. These were developed by the UNIBO team, and printed for distribution during the General Assembly held in Thessaloniki in June 2024. These visual tools were shared with all project partners participating in the session.

In addition to the visual materials, a presentation was prepared to facilitate the step-by-step implementation and to introduce the ToC methodology. This ensured that participants had a shared understanding of the objectives and steps of the co-creation process.

The first poster displayed the causal pathway of the BioGov.net Impact Map, from project activities to outputs and up to outcomes. This visual representation aimed at helping participants understand the logical relationship between project efforts and the changes they are expected to generate.

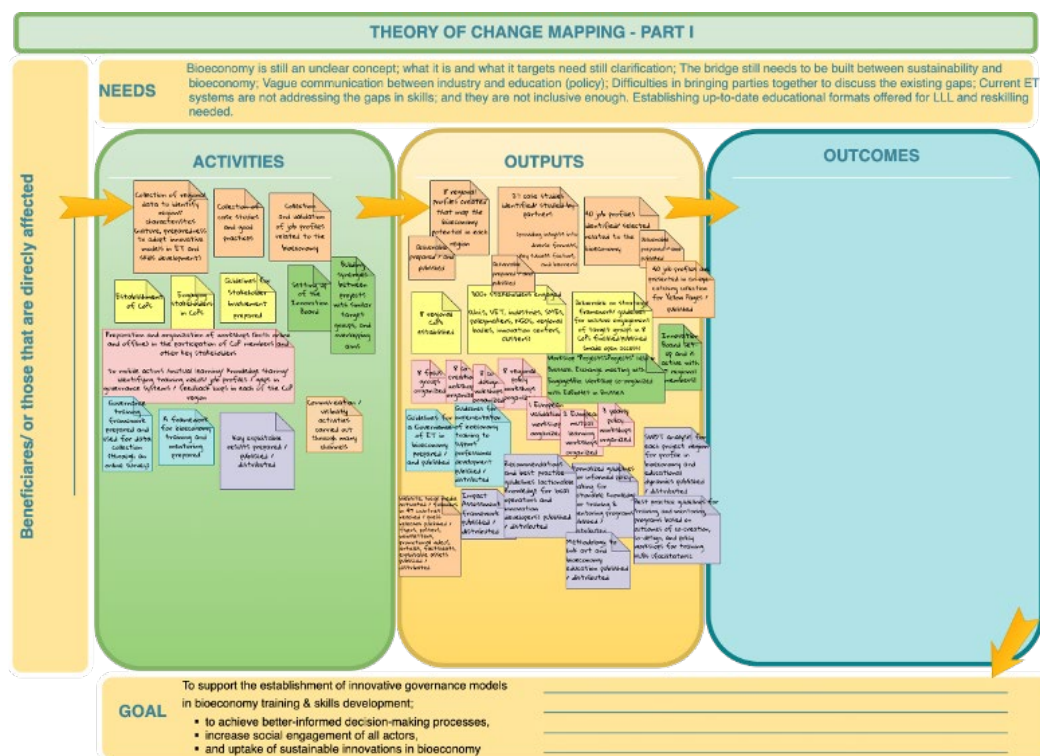


Figure 21 - The first poster used in the co-creation workshop to identify outcomes of BioGov.net activities

Following the definition of outcomes during the workshop, an additional participatory exercise was conducted to assess the duration and sustainability of each outcome. It was recognised that some outcomes may yield longer-lasting effects than others, and identifying this distinction was critical for a meaningful impact assessment.

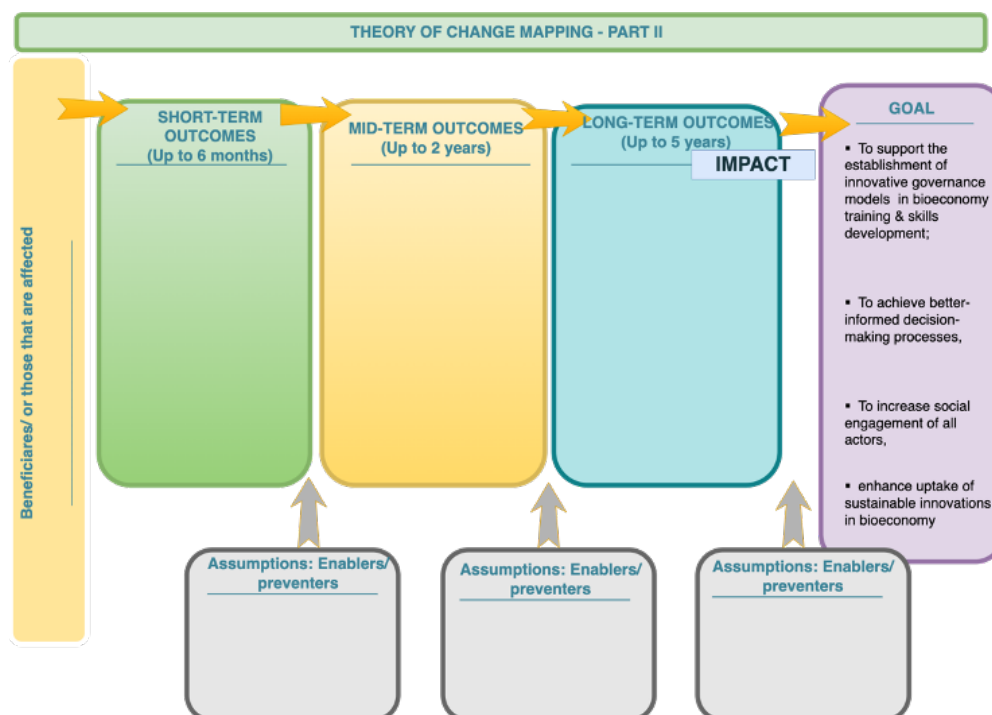


Figure 22 – The second poster used in the co-creation workshop to identify the time span of the outcomes of the BioGov.net activities

Implementing the co-creation workshop

The co-creation session was conducted during the Thessaloniki General Assembly Meeting 13th -14th June 2024. The session began with a presentation introducing the ToC methodology, followed by a detailed overview of BioGov.net’s activities and outputs. After this introductory phase, participants were introduced to the visual tools and materials, and then were divided into working groups.

Each group was asked to focus on one key stakeholder or beneficiary group relevant to the project (e.g. educators, policy-makers, professionals in the bioeconomy, professional associations). The goal was to identify meaningful outcomes for these specific groups based on the project’s interventions. Participants used post-it notes to freely propose outcomes based on their expertise and understanding. Throughout the group work, the UNIBO team facilitated the process by posing guiding questions and offering support to ensure that the discussions were focused, inclusive, and productive. As a result of this first stage of the workshop, the “outcomes” section of the poster was populated with sticky notes capturing the outcomes identified by the participants.

In the second stage, these outcomes were then reviewed and organised according to their expected time of occurrence: short-term, medium-term, and long-term. This classification allowed for the development of an outcome pathway that distinguishes immediate effects from those likely to evolve into long-term impacts (defined as changes expected to occur within a three-year horizon). Simultaneously, participants discussed and recorded enablers and preventers—factors that could respectively facilitate or hinder the realisation of these outcomes over time. This reflective step was instrumental in ensuring that the pathway to impact was both realistic and grounded in the lived experience of stakeholders.

The results of this collaborative work were documented and visualised, distinguishing the specific outcome pathways developed for each key beneficiary group. These are presented below in the accompanying visuals:

Educators

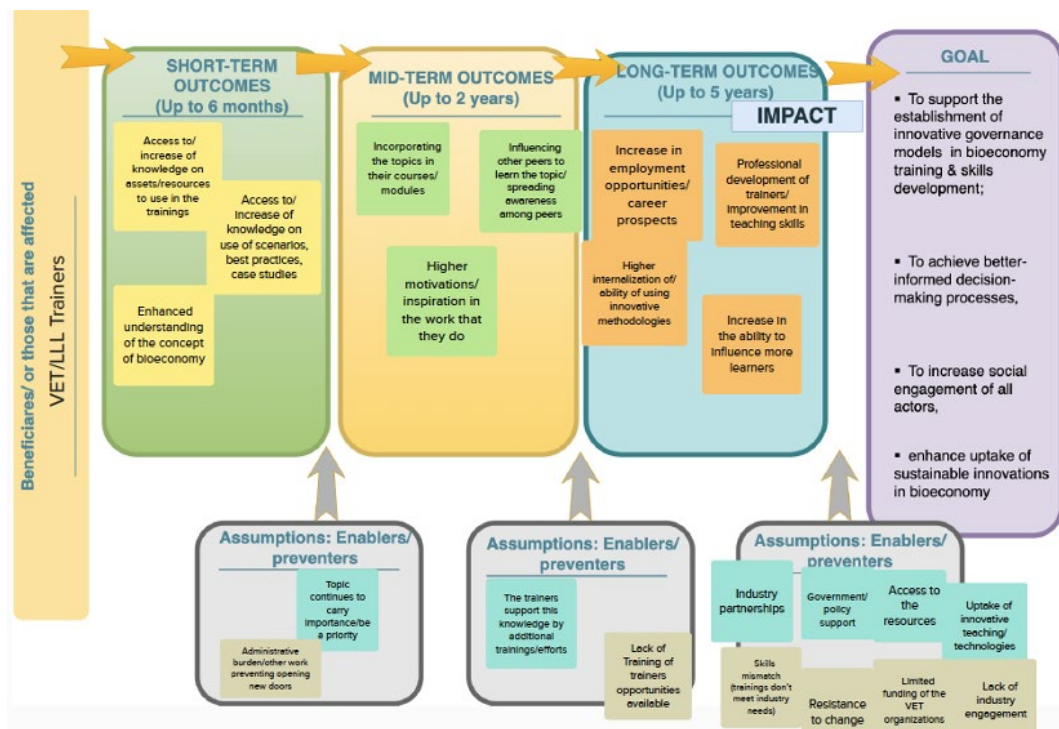


Figure 23 – The Theory of Change prepared for Educators

Professional Associations

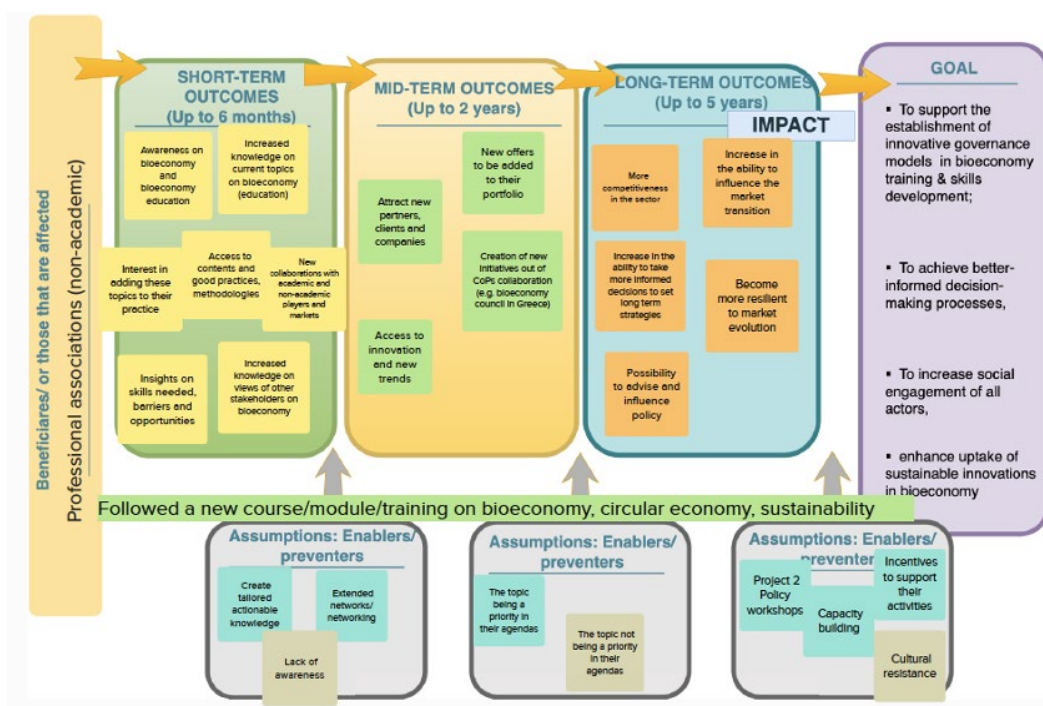


Figure 24 – The Theory of Change prepared for professional associations

Bioeconomy professionals

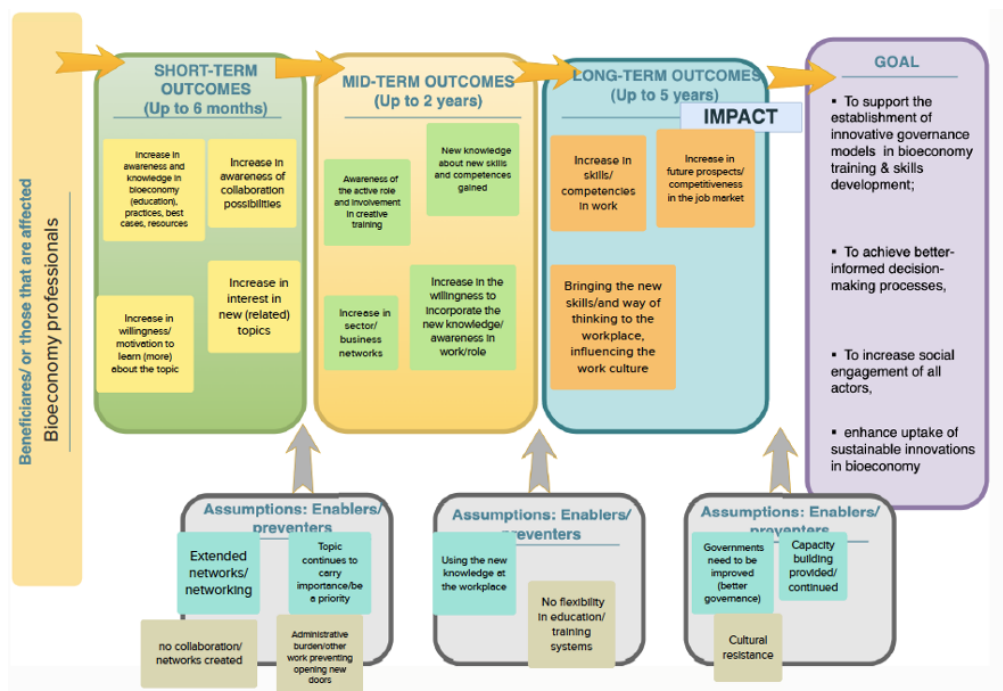


Figure 25 – The Theory of Change prepared for bioeconomy professionals

Policy-makers

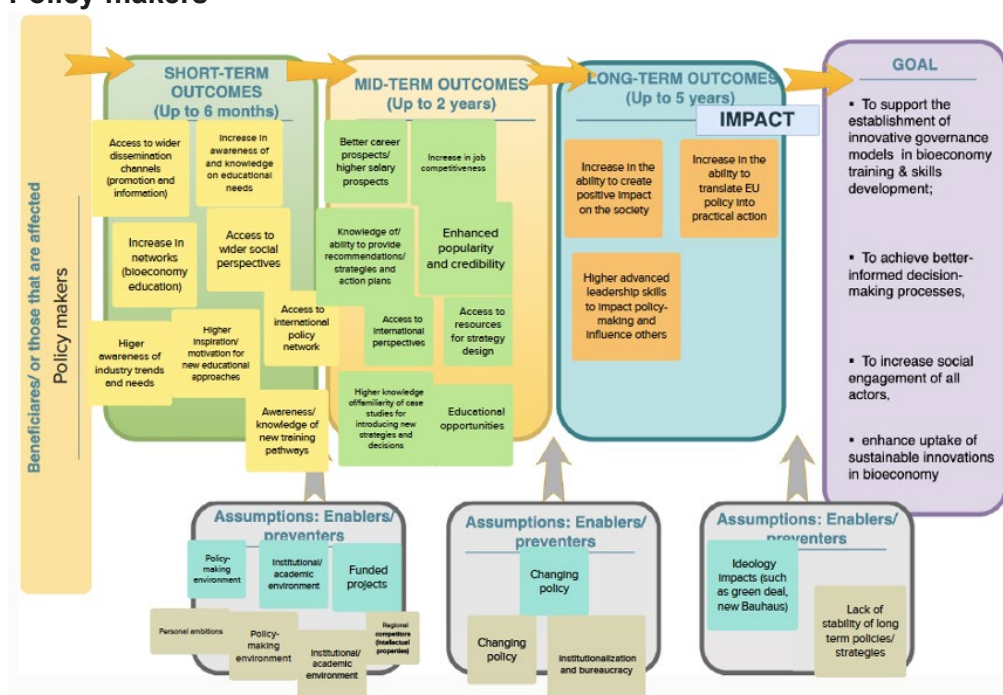


Figure 26 – The Theory of Change prepared for policy-makers

Finalisation of the outcomes

In line with the discussions and the impact map prepared for key selected key stakeholders, the UNIBO team has continued its discussions and the impact mapping

process, combining it with desk-research to finalise the outcomes for the BioGov.net project and these were used to identify the indicators.

6.3.5 Identification of Indicators

Following the finalisation of outcomes, a systematic process was undertaken to identify indicators capable of measuring those outcomes. This involved targeted desk research, review of relevant literature, and adaptation of existing frameworks where appropriate.

The indicators developed correspond to specific outcomes for each stakeholder group and provide the basis for the survey questions and qualitative assessment included in the study. These indicators, which were used to structure the online questionnaire and assess impact, are presented in detail in Annex 5 of this Deliverable.

6.3.6 Finalisation of the Questionnaire

Based on the outcomes and indicators identified, the UNIBO team developed an online questionnaire (Annex 6), which was then uploaded to the BioGov.net website. The questionnaire design drew directly from the indicators to ensure alignment with the ToC model.

First, a pilot survey was conducted in Italy, and then, with the support of project partners, it was disseminated between January-March 2025 across the rest of the partner countries. The questionnaire consisted of several sections. The first covered general and shared questions applicable to all respondents, followed by targeted sections for specific stakeholder groups (educators, policy-makers, professionals, etc.). This allowed for a nuanced and tailored data collection process, ensuring that responses were both comparable and meaningful across stakeholder categories.

6.4 Outcomes of Impact Assessment Implementation for the BioGov.net Project

This section will present the results of the Impact Assessment Study under two sub-sections, namely the Results of the Impact Assessment Survey, and the Results of the 2nd MML Co-creation Workshop.

6.4.1 Results of the online survey

In this section, we provide the results of the impact assessment survey.

The sample

A total of 41 stakeholders have participated in the survey, the distribution of which can be seen below.

Table 2 – Stakeholders that took part in the survey

	Education Provider Group 1	Education Provider Group 2	Economic actor/ bioeconomy professional	Policy- maker	Funding Agency	CSO	Organisation working on social inclusion	Art sector	Total
Czechia		2		1			1		4
Estonia	1			1		1			3
Germany			1			2			3

	Education Provider Group 1	Education Provider Group 2	Economic actor/ bioeconomy professional	Policy-maker	Funding Agency	CSO	Organisation working on social inclusion	Art sector	Total
Greece		1	1	2			1		5
Italy	3	2	2				1	1	9
Netherlands	2	2	2						6
Portugal	1		1				1		3
Slovakia		1		1	1	3	1	1	8
Total	7	8	7	5	1	6	5	2	41

The Figure below shows the distribution of countries that participated in the survey.

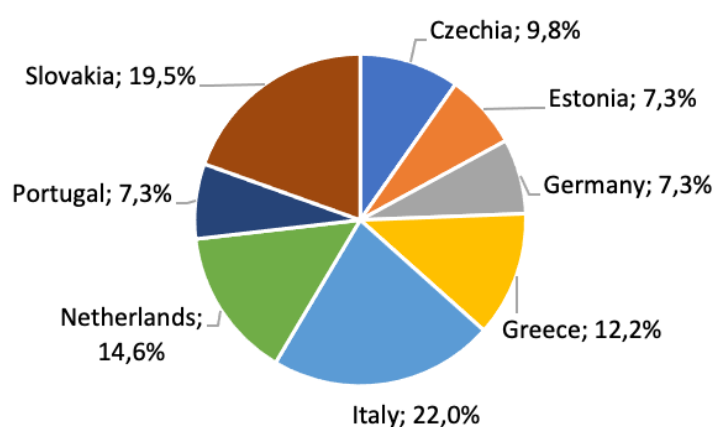


Figure 27 – Distribution of respondents according to countries

The results show that all eight BioGov.net partner countries were represented in the survey, with the highest number of responses from Italy (22%), followed by Slovakia (19.5%).

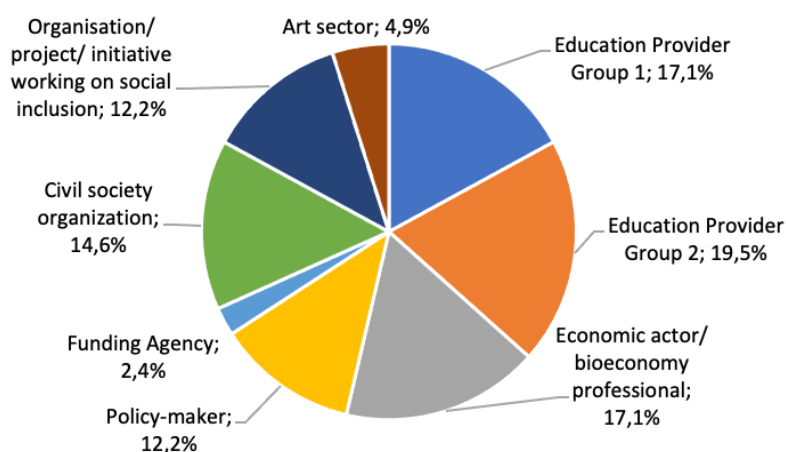


Figure 28 – Distribution of respondents according to stakeholder groups

The stakeholder group with the highest participation was Education Provider Group 2 (19.5%), comprising education managers, programme directors, and administrative staff.

This was followed by Education Provider Group 1 (educators and teachers), and bioeconomy professionals.

Meanwhile, the respondents were asked about their engagement with the Project, the responses of which can be seen in the below graph (The respondents could select more than one choice from the list of multiple choices).

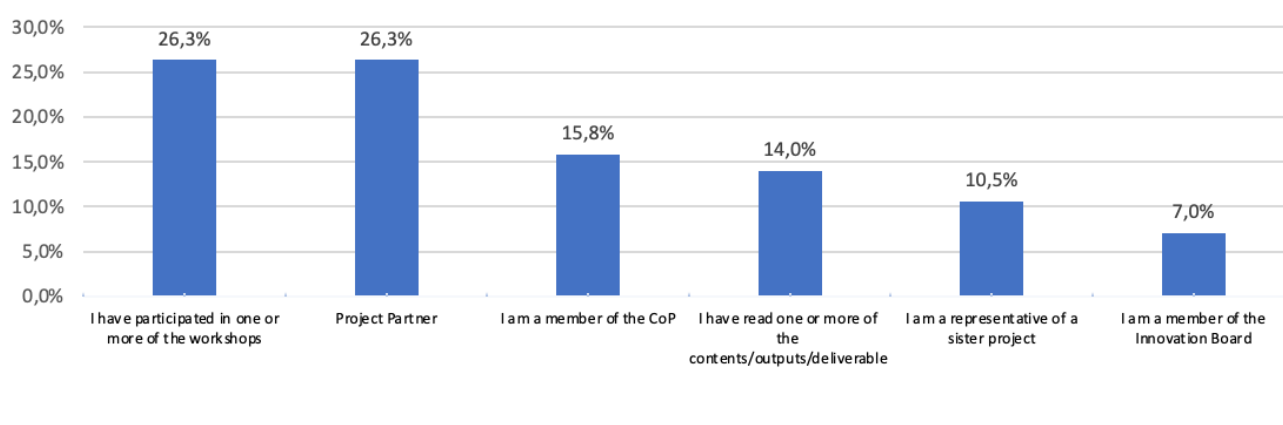


Figure 29 – Distribution of respondents according to their engagement in the BioGov.net project

Actions Stakeholders Have Taken (or Plan to Take) to Learn More About Bioeconomy, Sustainability, and Circular Economy

Participants were asked to indicate the actions they have already taken or plan to take to enhance their knowledge in these areas. Multiple responses were permitted.

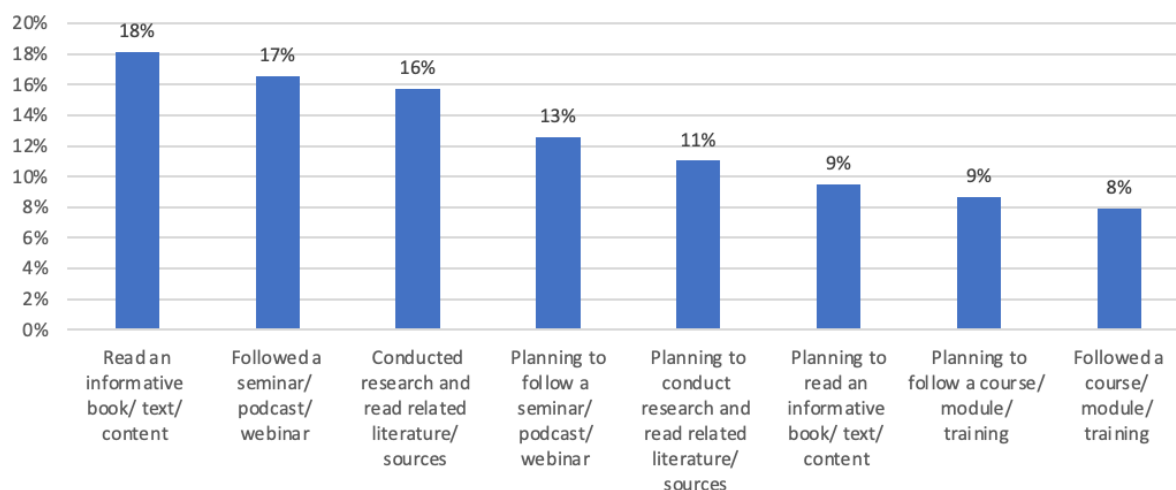


Figure 30 – Actions taken or planned to learn more about bioeconomy, sustainability, and circular economy

The most frequently selected action was “having read an informative book, text, or content” on the subject, followed by “attending a seminar, podcast, or webinar” and “conducting research or reading relevant literature.” While the average attribution to the BioGov.net project varied between 42% and 63.8%, the highest attribution was given to “having followed a course, module, or training” (63.8%).

Table 3 – Attribution to the BioGov.net project - What stakeholders have done or planning to do in terms of learning more on bioeconomy, sustainability and circular economy

Read an informative book/ text/ content	Followed a seminar/ podcast/ webinar	Conducted research and read literature/ sources	Planning to follow a seminar/ podcast/ webinar	Planning to conduct research and read literature/ sources	Planning to read an informative book/ text/ content	Planning to follow a course/ module/ training	Followed a course/ module/ training
55,6%	54,4%	56,1%	47,7%	50,0%	42,0%	56,7%	63,8%

The table below shows which stakeholder groups selected each action the most.

Table 4 – Distribution of stakeholder groups regarding what they have done or are planning to do in terms of learning more on bioeconomy, sustainability and circular economy

	Education provider 1	Education provider 2	Bioeconomy professionals	Policy makers	Funding agency	CSO	Org.s working on social inclusion	Art sector	Total
Followed a course/ module/ training	20,0%	20,0%	0,0%	10,0%	10,0%	10,0%	30,0%	0,0%	100,0%
Planning to follow a course/ module/ training	0,0%	27,3%	36,4%	9,1%	9,1%	9,1%	9,1%	0,0%	100,0%
Read an informative book/ text/ content	17,4%	17,4%	8,7%	13,0%	4,3%	17,4%	17,4%	4,3%	100,0%
Planning to read an informative book/ text/ content	25,0%	25,0%	16,7%	0,0%	8,3%	8,3%	16,7%	0,0%	100,0%
Followed a seminar/ podcast/ webinar	9,5%	23,8%	9,5%	14,3%	4,8%	19,0%	14,3%	4,8%	100,0%
Planning to follow a seminar/ podcast/ webinar	18,8%	25,0%	18,8%	6,3%	6,3%	12,5%	12,5%	0,0%	100,0%
Conducted research and read related literature/ sources	25,0%	25,0%	20,0%	0,0%	0,0%	10,0%	15,0%	5,0%	100,0%
Planning to conduct research and read related literature/ sources	28,6%	14,3%	21,4%	14,3%	0,0%	14,3%	7,1%	0,0%	100,0%

According to the table, organisations working on social inclusion most frequently reported “having followed a course/module/training.” Bioeconomy professionals most frequently selected “planning to follow a course/module/training.” The two groups of education providers showed high engagement across other actions, particularly reading and participation in seminars or research activities.

Education provider 1 (educators) and Education provider 2 (education managers/directors), on the other hand, most frequently selected planning to read an informative book/text/content, having followed or planning to follow a seminar/podcast/webinar, or having conducted or planning to conduct research in the following year.

Placing special emphasis on inclusivity, gender equality, or marginalised groups in their work and professions

Respondents were asked whether they had placed, or were planning to place, special emphasis on inclusivity, gender equality, or marginalised groups in their work.

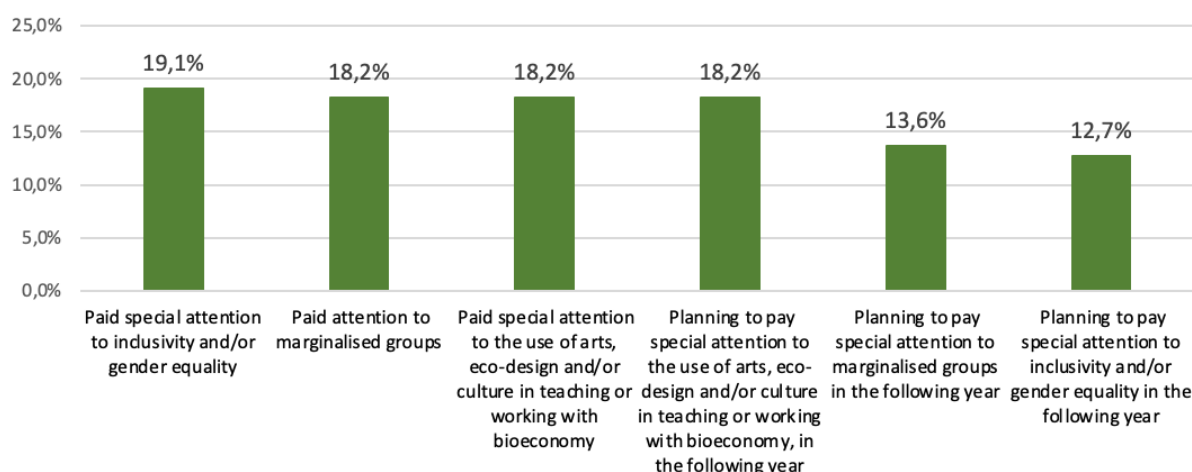


Figure 31 – Actions taken or planned relating to inclusivity, gender equality, or marginalised groups

The most commonly selected action was “having paid special attention to inclusivity and/or gender equality,” which also received the highest attribution to BioGov.net (66.7%) - a significant result given the project’s focus on social responsibility.

Table 5 – Attribution to the BioGov.net project - Placing special emphasis on inclusivity, gender equality, or marginalised groups in their work and profession

Paid special attention to inclusivity and/or gender equality	Paid special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy	Planning to pay special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy	Paid attention to marginalised groups	Planning to pay special attention to inclusivity and/or gender equality	Planning to pay special attention to marginalised groups
66,7%	60,6%	60,6%	64,7%	62,7%	60,9%

The table below shows the distribution of responses among different stakeholder groups. According to the results, CSOs and organisations working on social inclusion most frequently selected actions already taken to promote inclusivity. Meanwhile, Education Provider Group 2 and bioeconomy professionals were most likely to report planning such actions. Policymakers showed the highest level of planned action in the area of placing special attention to the use of arts, eco-design, and culture in their work.

Table 6 – Distribution of stakeholder groups regarding placing special emphasis on inclusivity, gender equality, or marginalised groups in their work and profession

	Education provider 1	Education provider 2	Bioeconomy professional	Policy maker	Funding agency	CSO	Org.s working in social inclusion	Art sector	Total
Paid attention to inclusivity and/ or gender equality	9,5%	14,3%	14,3%	14,3%	0,0%	19,0%	19,0%	9,5%	100,0%
Planning to pay attention to inclusivity and/or gender equality next year	14,3%	21,4%	21,4%	14,3%	0,0%	14,3%	7,1%	7,1%	100,0%
Paid attention to marginalised groups	15,0%	15,0%	10,0%	10,0%	0,0%	25,0%	20,0%	5,0%	100,0%
Planning to pay attention to marginalised groups next year	26,7%	6,7%	6,7%	20,0%	6,7%	13,3%	13,3%	6,7%	100,0%
Paid attention to use of arts/ eco-design in teaching or working with bioeconomy	15,0%	15,0%	20,0%	0,0%	0,0%	20,0%	20,0%	10,0%	100,0%

	Education provider 1	Education provider 2	Bioeconomy professional	Policy maker	Funding agency	CSO	Org.s working in social inclusion	Art sector	Total
Planning to pay attention to use of arts, / eco-design in teaching or working with bioeconomy next year	15,0%	15,0%	20,0%	25,0%	5,0%	10,0%	5,0%	5,0%	100,0%

What educators have done or planning to do in terms of introducing new materials or content in their teaching/professions

While the above two domains were asked to all the participants, the below table shows the actions that were taken or are planned to be taken by only educators. The educators were asked whether they introduced or are planning to introduce new materials or exercises on bioeconomy, sustainability or circular economy, and whether they shared suggestions or engaged in discussions on these topics with their peer educators/trainers. Out of all responses given by the educators, the highest rated was “planning to share ideas/suggestions or engage in discussions on these topics with their peer educators”. Meanwhile, respondents attributed 56% of this action to the BioGov.net project. Another area in which respondents attributed relatively a high amount of their action to the BioGov.net was having “introduced new discussions, materials or exercises on bioeconomy, circular economy or sustainability in their teaching content”.

Table 7 – What stakeholders have done or planning to do in terms of introducing new materials or content in their teaching/profession

	Percentage of responses	Attribution
Introduced any new discussion, materials or exercise (or similar) on bioeconomy, circular economy and/or sustainability in your teaching content	18,2%	60,0%
Planning to introduce any new discussion, materials or exercise (or similar) in your teaching content on bioeconomy, circular economy and/or sustainability in your teaching content	18,2%	30,0%
Shared ideas/suggestions or engaged in discussions on bioeconomy, circular economy and/or sustainability with your peer trainers/educators	18,2%	20,0%
Planning to share ideas/suggestions or engage in discussions on bioeconomy, circular economy and/or sustainability with your peer trainers/educators	45,5%	56,0%

Besides, all educators that took part in the survey selected “yes” to either having triggered interest or thinking they can trigger interest in their students. They also all selected “yes” to either having triggered interest or thinking they can trigger interest in their peer educators on these topics.

What education managers/directors have done or planning to do in terms of their role and profession, in promoting bioeconomy and related topics

Meanwhile, a question was asked to the Education Group 2 (who include education managers, or director of programmes or administrative or research staff in education institutions) to understand whether they engaged in (or planning to do so in the next year) certain activities with relation to the topic of bioeconomy, sustainability and circular economy. Their responses were as follows:

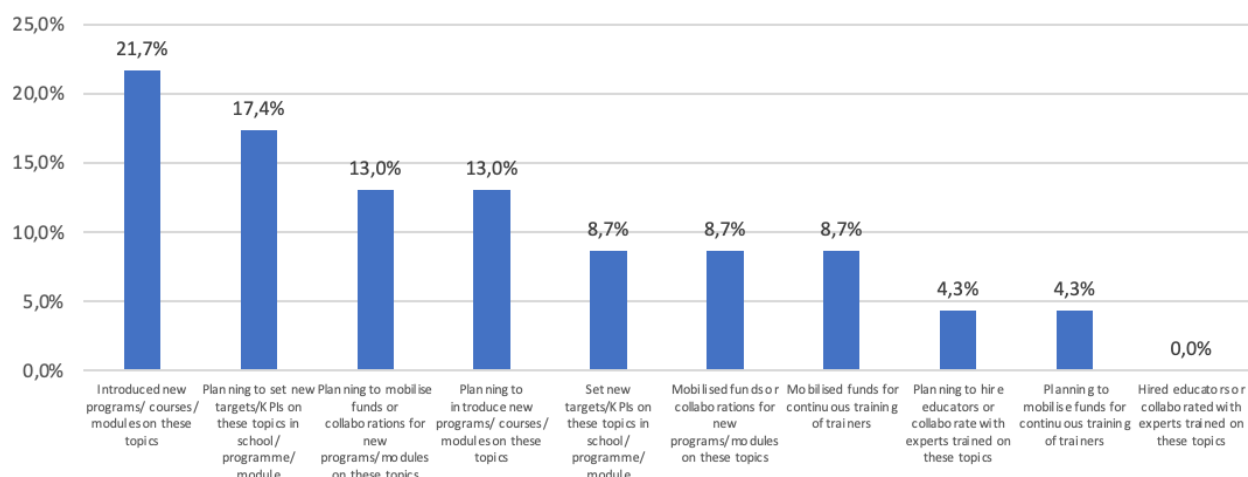


Figure 32 – What education managers/directors have done or are planning to do as part of their role, in the topic of bioeconomy, sustainability and circular economy

The action that was rated the most was having “introduced new programmes/courses or modules on bioeconomy, sustainability and circular economy, followed by “planning to set targets or KPIs on these topics in their schools, programmes or modules” and “planning to mobilise funds or collaborations to open new programmes/modules/courses on these topics”.

Below, we can see the percentages given, as attributing these actions to the BioGov.net project (in the same order as in the bar chart above, in the order of actions taken/planning to be taken the most to the least).

Table 8 – Attribution to the BioGov.net project - What education managers/directors have done or are planning to do as part of their role, in the topic of bioeconomy, sustainability and circular economy

Set new targets/ KPIs in school/ programme/ module	Planning to set new targets/ KPIs in school/ programme/ module	Mobilised funds or collaborations for new programs/ modules	Planning to mobilise funds or collaborations for new programs/ modules	Introduced new programs/ courses/ modules on these topics	Planning to introduce new programs/ courses/ modules on these topics	Hired educators or collaborated with experts trained on these topics	Planning to hire educators or collaborate with experts trained on these topics	Mobilised funds for continuous training of trainers	Planning to mobilise funds for continuous training of trainers
35,0%	60,0%	40,0%	60,0%	37,5%	30,0%	(no responses)	30,0%	40,0%	40,0%

While education managers, directors, or administrators who reported having already introduced new programmes, courses, or modules on bioeconomy-related topics attributed 37.5% of this action to the BioGov.net project, other planned actions were associated with an even stronger perceived influence. In particular, respondents more frequently attributed their intention to set new targets and KPIs, as well as their plans to mobilise funding or establish collaborations for launching new educational offerings, to the impact of the BioGov.net project.

In which areas stakeholders have shown improvement in

Besides, a set of questions were asked to specific stakeholder groups to understand if they showed improvement in some areas in relation to their performance in their professions (Harvard Business School, University College Estate Management, Greener

Insights). These questions were asked to bioeconomy professionals, funding agencies, and those working in CSOs, organisations working in social inclusion and the art sector.

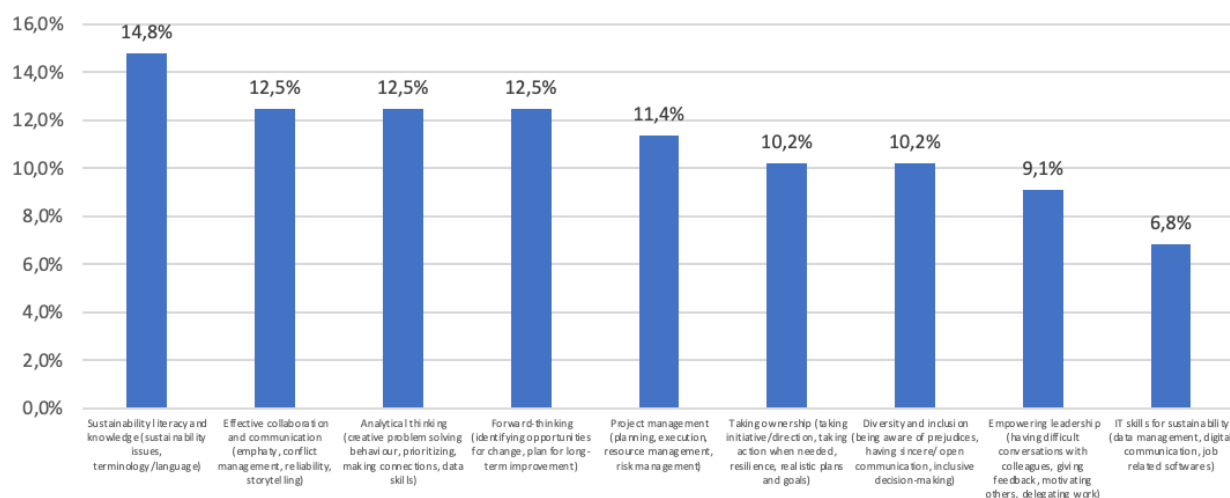


Figure 33 – The areas in which stakeholders have shown improvement in

The results revealed that issues related to sustainability and sustainability literacy were selected the most by the respondents. This was followed by topics such as effective collaboration, analytical thinking and forward thinking, among others. The attribution participants allocated to sustainability and sustainability literacy was 55%. The topic, in which respondents gave the highest amount of attribution to the BioGov.net project was “diversity and inclusion” by 63%, which, given its critical importance and priority for the BioGov.net project, is a promising result.

Table 9 – Attribution to the BioGov.net project - The areas in which stakeholders have shown improvement in

Sustainability literacy (sustainability issues, terminology/language)	Effective collaboration, communication (conflict management, storytelling)	Analytical thinking (creative problem solving)	Forward-thinking (Long-term planning)	Project management (planning, execution, risk management)	Taking ownership (taking initiative, taking action)	Diversity and inclusion (open communication, decision-making)	Empowering leadership (conversations with peers, feedback, delegating work)	IT skills for sustainability
55%	58%	59%	59%	53%	53%	63%	57%	56%

Improvement experienced by policy-makers

Meanwhile, policymakers were asked whether or not they showed improvement in certain areas in relation to their profession (European Commission's Competence Framework for innovative policymaking).



Figure 34 – The areas in which policy-makers have shown improvement

The results reveal that the policy-makers have shown the most improvement in inclusive stakeholder and citizen engagement, followed by advising policy and working with evidence. The policy-makers stating to have shown improvement in “inclusive stakeholder and citizen engagement” is a prominent outcome, as stakeholder engagement and inclusiveness, through approaches (including governance) to integrate marginalised groups has been a core mission of the BioGov.net project.

The percentages presented below reflect the extent to which respondents attributed improvements in specific skills to their engagement with the BioGov.net project. These are listed in the same order as shown in the bar chart above. Among the various skill areas, “collaboration” received the highest average attribution, followed by “advising policy” and “communication.” Notably, “inclusive stakeholder and citizen engagement” was also rated highly, with respondents attributing 65% of their improvement in this area to the BioGov.net project.

Table 10 – Attribution to the BioGov.net Project - The areas in which policy-makers have shown improvement

Inclusive stakeholder and citizen engagement (planning, designing, executing inclusive stakeholder engagement)	Advising policy (identifying policy issues, designing evaluating policy)	Working with evidence (scientific and data literacy, data)	Communication (clear writing, speaking with impact, story telling)	Innovating (creative/ systems/ critical thinking)	Being futures literate (change management, long-term strategies)	Collaboration (collaborative mindset, facilitation processes, empathy, facilitating CoPs)
65,0%	66,7%	60,0%	65,0%	50,0%	50,0%	70,0%

6.4.2 Results of the 2nd MML workshop

Stage 1: Reflection on Impact Assessment Results (Mentimeter)

As detailed in Section 5.3.1 of this Deliverable, the first interactive session was designed to present participants with selected results from the BioGov.net impact assessment study and to collect their reflections. Participants responded via Mentimeter to a series of open and structured questions focused on: their alignment with the identified impact areas, perceived gaps or areas not fully captured, and the potential for methodological approaches such as Theory of Change to support long-term improvements in bioeconomy ET systems.

All participants showed their belief towards the ability of the BioGov.net Impact Assessment Study to provide useful insights for policymaking in bioeconomy ET. A response indicated that the strength of this approach includes its ability to engage stakeholders, increase inclusivity and to ensure transparency, and that it clarifies the need to engage policy-makers more. Other participants raised some issues that can be strengthened or improved, which included, prioritising the societal dimension more, and to place more emphasis on international alignment.

Participants identified a wide range of challenges to advancing bioeconomy ET, many of which revolve around deeper systemic and structural issues. A recurring theme was the lack of coherent and supportive policy frameworks, with several participants noting the need for education in bioeconomy to be prioritised by governing bodies and better aligned with regional needs and realities. Others highlighted the challenge of changing current education practices, particularly in terms of developing tailored and up-to-date curricula, fostering experiential learning opportunities, and ensuring that training is relevant across diverse bioeconomy sectors. The issue of inclusion featured prominently, with calls to ensure meaningful participation of marginalised groups, including youth, NEETs, women, and workers in the primary sector. Participants also pointed to the difficulty of bridging interdisciplinary knowledge with real-world application, the need for additional skill development, and the barriers posed by language in accessing training and collaboration across borders. Finally, concerns were raised about the fragmentation of efforts — from sectoral heterogeneity to limited institutional coordination — reinforcing the importance of moving from isolated local initiatives toward more systemic approaches in bioeconomy education.

Finally, stakeholders, by providing keywords on what they think was the most significant impact of the BioGov.net project, helped draw this word cloud on Mentimeter. According to the results, raising awareness was the strongest impact of the BioGov.net project.



Figure 35 – Word cloud generated during the 2nd MML Co-creation workshop using the Mentimeter

Stage 2: Policy Recommendations and Co-Reflection (Miro Board)

The second session invited participants to respond to four open-ended policy questions, using a digital Miro board. The aim was to collectively explore the implications of impact

assessment in a policy context and to identify actionable recommendations for improving the governance of bioeconomy ET.

Which topics, areas, or indicators in the assessment of bioeconomy ET should be assessed more closely or focused on?

Stakeholders highlighted a number of priority areas that should be addressed more closely in the assessment of bioeconomy ET. Among these were the need to distinguish between dedicated and transversal approaches to bioeconomy learning, as well as to account for regional differences and specific local needs. The alignment between education systems and labour market demand was seen as a key area for improvement, particularly regarding the needs of companies and skill development for rural communities. Several participants also suggested that circular economy principles should be more explicitly embedded in impact frameworks. In terms of indicators, stakeholders recommended tracking employment trends, workforce development, and the effectiveness of educational programs, alongside the profitability of bio-based businesses. Finally, experiential and informal learning was also mentioned, with one participant suggesting that sectors such as tourism could offer creative and accessible routes for engagement with bioeconomy themes.

How can we ensure that impact assessment results are systematically integrated into policy decisions in bioeconomy ET? What governance mechanisms could facilitate this, and at which level and time scale?

Participants underlined the importance of engaging policymakers early in the process and translating assessment findings into policy-friendly formats. Better communication and alignment between stakeholders, including youth groups, regional authorities, and the general public, were considered essential. Some participants referenced youth impact groups already active at provincial levels as models for strengthening the role of young people in education governance. Others called for capacity-building efforts involving national, regional, and local decision-makers, as well as training programs tailored to policymakers, not only educators. The importance of transparent data reporting and the use of visual formats such as infographics and interactive dashboards was also stressed. Participants repeatedly highlighted the need for robust feedback loops, both between education systems and industry, and between learners and decision-makers, to ensure that assessment results lead to meaningful and ongoing improvements in policy.

What role should policymakers play in designing and using impact assessment frameworks for ET in bioeconomy, and what types of mechanisms should be used (mandatory steps, voluntary measures, incentives, etc.)?

Stakeholders expressed that policymakers have a crucial role to play in shaping and sustaining impact assessment practices. There was a strong call for interdisciplinary policy integration, especially across sectors such as agriculture, energy, and the environment. Participants supported the use of mandatory steps, such as embedding bioeconomy education within community and national-level development strategies, potentially supported by legal mandates. Incentives were also considered vital, including public support schemes tied to sustainability criteria, such as regional funding calls. Long-term monitoring and follow-up were seen as essential, with several participants stressing the need to build capacity among both educators and policymakers to effectively design and implement impact assessments. The distinction between policymakers and broader decision-makers was also raised, with a call to empower

actors across governance levels and strengthen their roles in steering bioeconomy education.

How can impact assessment contribute to making bioeconomy education policies more adaptive and responsive to societal needs, particularly the needs of marginalised groups?

Stakeholders emphasised the potential of impact assessment to drive more inclusive, flexible, and context-sensitive education policies. This includes defining indicators that support the periodic revision of curricula to better reflect emerging challenges and opportunities. Participants stressed the importance of identifying gaps and priorities, and using assessment tools to link educational planning with the needs of marginalised groups, including unemployed individuals, rural communities, and other underserved populations. Suggestions included promoting experiential learning, lifelong learning, and modular education models that allow students to tailor their learning pathways. Early integration of bioeconomy into educational systems was also highlighted, along with the need to engage local communities in order to better understand their perspectives and co-design relevant interventions. Finally, participants called for financial incentives and institutional support to help education providers implement innovative programs aligned with real societal needs.

6.5 Discussion and Recommendations

This final section presents the key insights, reflections, and policy recommendations emerging from the BioGov.net impact assessment study. While the following sections offer a detailed discussion of findings, stakeholder perspectives, and methodological insights, the chart below provides a concise visual summary of the main components of this section.

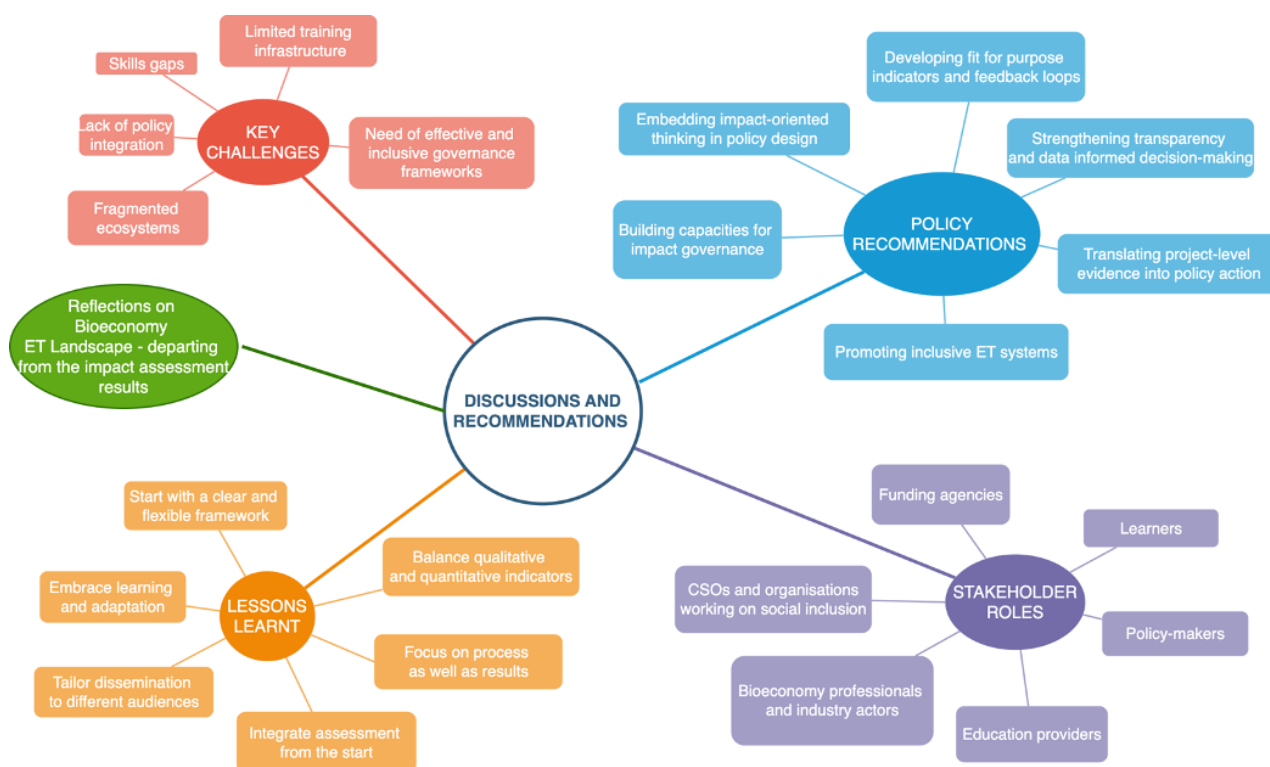


Figure 36 – Visual summary of impact assessment-related recommendations

6.5.1 Reflections on the Bioeconomy Education and Training Landscape

The shift towards a sustainable and circular bioeconomy depends largely on education and training (ET) systems that are both inclusive and future-oriented. These systems play a key role in equipping individuals with the skills, values, and perspectives necessary to drive innovation, build resilience, and respond to social and environmental challenges.

As such, understanding how these systems currently operate, and where they fall short, is essential for informing policy development, investment priorities, and institutional change. The BioGov.net Impact Assessment contributes to this effort by providing a practical example for how project-level assessments in this field can be conducted, offering both a methodological framework and a set of indicators for broader use.

This study was not designed to collect representative or large-scale data; rather, it aimed to offer a structured example of how a project-level impact assessment in the bioeconomy ET field can be conceptualised and implemented. The exercise sought to generate actionable insights while simultaneously contributing to the methodological landscape by offering a replicable framework that other projects or organisations may adapt to their own contexts. By identifying and categorising actions taken by diverse stakeholder groups, and by linking them to clearly defined outcomes and indicators, the study also provides a practical foundation for future assessments. The data collection component, including the online survey and interactive workshop sessions, served both as a source of valuable findings and as a demonstration of how targeted, theory-based impact assessment approaches can be operationalised at the project level.

The survey results show that stakeholders across all target groups have engaged in various learning activities related to bioeconomy, circular economy, and sustainability. A substantial proportion reported having read relevant materials, participated in training or seminars, or planned to do so in the near future. Education providers in particular, both educators and education managers, showed relatively high levels of interest in integrating new content and methods into their work. However, these efforts remain unevenly distributed, with new pedagogical approaches and curricula still far from mainstreamed. Stakeholders' attribution of their activities to the BioGov.net project also varied, suggesting that while the project influenced awareness and behaviour, external factors continue to play a significant role.

The data further indicate that certain groups, such as organisations working in social inclusion, civil society organisations, and policy-makers, are beginning to place greater emphasis on topics such as gender equality, inclusivity, and marginalised groups within their professional domains. At the same time, gaps persist in areas such as systemic support for capacity-building, long-term investment in teacher training, and the integration of arts and cultural approaches into sustainability education.

Complementing the survey findings, the interactive sessions of the 2nd MML workshop provided qualitative insights into the governance and policy dimensions of bioeconomy ET. Participants highlighted a range of persistent challenges, including the limited presence of bioeconomy in national strategies, the difficulty of translating interdisciplinary knowledge into actionable curricula, and the lack of mechanisms for

bridging policy, education, and practice. Several participants stressed the need for clearer feedback loops between education systems and societal needs, as well as for better coordination between national and regional actors.

Overall, the findings suggest that while there is growing awareness of the role ET can play in advancing bioeconomy goals, existing systems are not yet equipped to deliver the scale and depth of transformation required. There is a clear need for policy frameworks that incentivise innovation in education, facilitate stakeholder engagement, and provide long-term institutional support for emerging practices. These challenges and opportunities form the basis for the recommendations that follow.

6.5.2 Key Challenges Identified

From the combined insights of the survey and the 2nd MML workshop, several interlinked challenges emerge:

- **Fragmented Ecosystems.** ET initiatives in bioeconomy are often disconnected from broader systemic policies, institutional mandates, and market demands. Educators and institutions operate in silos, without sustained collaboration with industry, policy-makers, or civil society.
- **Lack of Policy Integration.** Bioeconomy education remains peripheral in many national or regional education strategies. Stakeholders highlighted the lack of alignment with regional smart specialisation strategies, limited feedback loops between education providers and policy-makers, and a general undervaluing of bioeconomy education in public discourse.
- **Skills Gaps and Limited Training Infrastructure.** Survey responses reveal a lack of continuous training opportunities for both educators and learners. Participants identified deficits in soft skills, interdisciplinary thinking, and the ability to translate knowledge into practice, all of which are critical for a dynamic and responsive bioeconomy.
- **Marginalisation and Inclusion.** Despite progress, stakeholders reported that groups such as NEETs, women, rural learners, and the primary sector continue to be underrepresented. The need for modular, experiential, and flexible training solutions was raised frequently.
- **Data Gaps and Weak Monitoring.** Without clear, shared indicators and systematic tracking of outcomes, institutions and policy-makers lack the ability to assess progress, replicate good practices, or revise strategies.

6.5.3 Policy Recommendations

The transition toward a sustainable and circular bioeconomy depends on the development of ET systems that are evidence-informed, inclusive, and responsive to societal needs. This impact assessment study has demonstrated that while there is growing awareness and engagement with bioeconomy education across Europe, persistent challenges remain, ranging from limited policy coherence and capacity gaps to the lack of systematic monitoring mechanisms.

The recommendations outlined below synthesise findings from the BioGov.net impact assessment survey, the 2nd MML co-creation workshop, and the broader project experience.

i. Embedding Impact-Oriented Thinking in Policy Design

A major conclusion of this study is that current ET approaches in the bioeconomy often lack embedded mechanisms to assess and demonstrate their impact. Stakeholders across regions recognised the value of integrating impact assessment from the outset, not as a final reporting obligation, but as a core design principle that enhances relevance, alignment with stakeholder needs, and responsiveness to societal challenges. To address this, education policy frameworks in bioeconomy ET can incentivize the use of impact-oriented approaches from the outset. This could take the form of:

- Including requirements or encouragements for impact assessments in public funding calls.
- Providing institutional support and capacity-building to design evaluation strategies aligned with policy priorities.
- Institutionalizing interdisciplinary approaches across the education system. Since bioeconomy intersects with diverse domains (agriculture, energy, design, sustainability), embedding its principles across curricula promotes systems thinking and real-world relevance.
- By integrating these principles into planning and design phases, stakeholders across the system - from ministries to educators - can ensure greater alignment between activities, expected outcomes, and long-term policy goals.

ii. Developing Fit-for-Purpose Indicators and Feedback Loops

Another key recommendation emerging from the study is the need for more robust and context-sensitive indicators for evaluating impact in bioeconomy ET. The diversity of stakeholder profiles and education pathways, along with evolving labour market dynamics and policy priorities, requires more adaptive and disaggregated forms of evidence. The BioGov.net framework provides a starting point: it includes indicators tailored to different stakeholder groups, from educators and programme directors to civil society actors and policymakers. To further advance the use of meaningful indicators:

- Institutions can be encouraged to adopt and adapt a shared set of indicators while retaining flexibility for regional or sectoral specificities.
- Programme evaluation can move beyond static metrics to focus on changes in sustainability literacy, inclusion practices, stakeholder collaboration, and institutional innovation.
- Feedback mechanisms can be established between educators, learners, and policy actors. As also pointed during the 2nd MML workshop, these can take the form of stakeholder panels, youth advisory groups, or participatory consultation formats, ensuring curricula and strategies evolve based on real-world inputs. These feedback loops not only enhance responsiveness but also support the creation of policy environments that reflect lived experiences and emerging needs.

iii. Strengthening Transparency and Data-Informed Decision-Making

Impact assessment processes only serve their purpose if the results are translated into accessible, transparent, and policy-relevant outputs. One challenge frequently noted by stakeholders was the lack of visibility and accessibility of existing impact evidence, which often remains siloed within institutions or published in formats inaccessible to broader audiences.

It is therefore recommended that impact assessment results be translated into actionable formats, such as infographics, policy briefs, and open-access dashboards, and

disseminated across the ET ecosystem. Special attention should be given to tailoring these outputs to different audiences, including regional and national authorities, educators, and civil society actors.

Transparency also entails setting up clear reporting structures, where data from ongoing assessments can be aggregated and analysed to inform long-term trends, sectoral planning, and inter-sectoral learning. At the EU level, a platform for collecting and comparing such data across Member States could serve to strengthen alignment and mutual learning across bioeconomy ET systems.

iv. Translating Project-Level Evidence into Policy Action

Translating project-level evidence into meaningful policy action requires more than generating robust data; it demands intentional strategies for integration, communication, and institutional uptake. Impact assessments conducted within projects focused on education, skills, and the bioeconomy often yield valuable insights into stakeholder needs, context-specific dynamics, and implementation challenges. However, these findings risk remaining underutilised unless they are systematically connected to broader governance and policymaking processes.

To enhance the policy relevance of such assessments, a more structured and strategic approach is required. Some critical steps can be as follows:

- **Assessments should be policy-aware from the outset, with policymakers involved in co-designing frameworks, indicators, and expected outcomes.** Involving public authorities early in the evaluation process, during the framing of questions, the co-definition of expected outcomes, and the selection of indicators, can ensure greater alignment with policy priorities and regulatory demands. Establishing shared expectations in the design phase also increases the credibility, utility, and uptake of the resulting evidence.
- **Public institutions should establish structured mechanisms.** Equally important is fostering stronger institutional mechanisms to embed project-level insights into policymaking processes. These may include the creation of dedicated advisory bodies, structured channels for knowledge sharing between projects and public administrations, or formalised reflection processes within institutions. Evidence must be communicated in ways that are tailored to policy cycles, made available in advance of key programming milestones, summarised clearly, and visualised in formats that support quick interpretation and strategic dialogue.
- **Reporting standards should be harmonised across projects to allow comparability and synthesis of results.** The standardisation of methodologies and reporting practices also plays a key role in increasing the utility and comparability of findings across projects. Developing shared templates, metadata protocols, and indicator frameworks enables the aggregation and synthesis of results, while also ensuring a more coherent evidence base across regions and policy domains. This in turn strengthens the visibility and legitimacy of project outcomes in the eyes of policymakers and funders.
- **Capacity-building is essential for both implementers and public officials.** A critical area for investment is capacity-building, both within project teams and among public stakeholders. Promoting a shared understanding of core concepts (such as outputs, outcomes, and long-term impact) and strengthening fluency in evaluation approaches fosters mutual trust and enhances the interpretability of results. Policymakers, in particular, benefit from targeted training on the strategic use of

evidence, improving their ability to assess, contextualise, and apply findings in real-time decision-making.

- **Communication and dissemination strategies must also evolve.** Traditional final reports are often insufficient to ensure uptake. Instead, findings should be presented in dynamic, accessible formats—such as policy briefs, infographics, dashboards, or interactive visualisations—that meet the needs of diverse audiences. These tools not only support understanding, but also facilitate collaboration across sectors and governance levels.
- **Finally, it is essential to foster a culture of impact literacy and continuous learning.** Projects should be seen not as isolated experiments but as contributors to a cumulative body of knowledge on what works, for whom, and under what conditions. Building feedback loops across projects and between projects and institutions allows for ongoing refinement of policies, programmes, and funding priorities. Formalising opportunities for peer exchange, learning communities, and reflective governance practices will help ensure that public investments in innovation, skills, and sustainability yield durable societal value.

Together, these measures lay the groundwork for transforming project-level evaluations into instruments of strategic foresight, accountability, and adaptive policymaking in the bioeconomy ET sector.

v. Promoting Inclusive ET Systems

The BioGov.net project placed a central emphasis on social inclusion, equity, and the visibility of marginalised groups in bioeconomy learning ecosystems. This commitment is also observed in stakeholder responses, which underscored the need for inclusive and tailored learning opportunities, particularly for women, youth, NEETs, and rural communities. Hence, integrating gender equality and inclusive governance into the bioeconomy ET is of critical importance. Indicators of progress in these domains should be mainstreamed into assessment frameworks.

vi. Building Capacities for Impact Governance

While capacity-building is also highlighted above as a necessary condition for ensuring that project-generated evidence can be effectively interpreted, communicated, and used within policymaking processes, capacity-building is also among the most important long-term strategic priorities.

The success of any impact-oriented policy ecosystem relies on the capacities of those who design, implement, and evaluate them. BioGov.net stakeholders emphasised the need for dedicated training and capacity-building opportunities focused on impact governance, including topics such as evaluation methods, futures literacy, stakeholder engagement, and systems thinking.

Such capacity-building initiatives should target all levels of the ET system: from school leaders and programme designers, to public administrators and funding agencies. Particular attention should be given to the role of decision-makers as enablers of change, ensuring that they are equipped with the analytical, collaborative, and strategic competences needed to steer education systems toward greater sustainability and impact.

6.5.4 Stakeholder Roles in Advancing Bioeconomy Education and Training

Achieving meaningful and sustainable impact in bioeconomy ET depends on coordinated action by a diverse group of stakeholders. The BioGov.net impact assessment findings underscore the need for multi-level collaboration, with each actor contributing distinct capacities to advance inclusive, relevant, and evidence-based educational systems. Drawing on the results of the stakeholder survey and insights from the 2nd MML co-creation workshop, this section outlines stakeholder roles as they emerged from the study.

Policy-makers play a pivotal role in enabling systemic change. Their responsibility extends beyond policy formulation to ensuring long-term policy coherence, funding allocation, and the integration of bioeconomy education into broader national and regional development strategies. Policymakers can support impact assessment efforts by embedding mandatory monitoring frameworks in policy implementation cycles and enabling the co-development of indicators and methods with education providers and researchers. Participants in the MML workshop highlighted the lack of coherent and supportive policy frameworks as a major barrier to advancing bioeconomy education. They also underlined the importance of embedding bioeconomy education within regional and national strategies, supported by robust governance mechanisms and long-term vision. Workshop discussions pointed to the value of mandatory monitoring mechanisms and incentives for embedding impact assessment into policy cycles. Policy-makers were also seen as crucial actors for ensuring inclusive stakeholder engagement and translating assessment findings into policy-relevant formats.

Education providers including schools, universities, vocational training centres, and lifelong learning institutions, serve as the critical implementation hubs for bioeconomy knowledge and skills development. They are uniquely positioned to contextualise and apply impact assessment findings by adapting curricula, embedding sustainability and inclusivity principles, and cultivating the transversal skills highlighted by the study (e.g. forward-thinking, collaborative problem solving, adaptability). Education managers and directors also have a strategic role in resource mobilisation, curriculum innovation, and institutional change. In the survey, educators and education managers reported a range of actions they had taken or planned to take to enhance learning on bioeconomy, sustainability, and circular economy. These included reading relevant content, engaging in peer discussions, and introducing new materials or programmes. These actions reflect a growing awareness and willingness to innovate, particularly in response to emerging needs. The findings further reinforced the role of education providers in developing context-responsive curricula and promoting inclusive learning environments.

Bioeconomy professionals and industry actors bring real-world relevance and application to ET efforts. Their input is vital in aligning learning outcomes with labour market needs and sustainability standards. By engaging in impact assessment, they can help define skills gaps, identify emergent trends, and support training programmes through mentorship, co-design of content, or funding partnerships. In the survey, they most frequently reported planning to engage more deeply with bioeconomy education, such as by seeking out training opportunities. Their involvement was also discussed in the 2nd MML workshop as essential for aligning learning outcomes with real-world needs and fostering stronger connections between education and labour markets. Industry

actors can contribute by co-developing content, mentoring learners, and identifying emerging trends in the bioeconomy sector.

Civil society organisations and **organisations working on social inclusion** play a vital role in ensuring that the bioeconomy transition is both equitable and socially responsive. Their involvement helps shape inclusive education strategies that engage marginalised populations and amplify underrepresented voices in policy and practice. They are also essential in defining relevant indicators of social impact and validating the inclusiveness of training interventions. In the survey, these stakeholders most frequently reported having already taken steps to promote inclusivity and work with marginalised groups. These findings suggest that civil society actors are already advancing the social dimension of the bioeconomy. The 2nd MML workshop also supported this perspective, calling for their deeper involvement in co-developing inclusive indicators, engaging local communities, and validating the social relevance of ET interventions.

Funding agencies have a dual role: first, in supporting the operationalisation of impact assessment by financing data collection, evaluation, and innovation; and second, in adopting funding criteria that are aligned with long-term impact targets in bioeconomy education. By requiring transparent reporting and evidence-based progress monitoring, they can drive uptake of rigorous impact frameworks across funded projects. Funding agencies were also seen as having the potential to mainstream impact-driven practices across programmes and institutions.

Learners, especially adult and lifelong learners, were recognised as essential actors in the impact cycle. Their feedback, engagement, and evolving needs must inform both the assessment frameworks and the resulting policy and pedagogical adjustments. Mechanisms for their inclusion in evaluation processes are essential for generating relevant and grounded insights. During the workshop, the need to treat learners as active contributors to educational transformation was stressed. Including learners in assessment and feedback processes was seen as critical for ensuring education systems remain relevant, inclusive, and responsive.

These insights form a solid foundation for future efforts to strengthen collaboration and enhance the governance of bioeconomy ET systems.

6.5.5 Reflections and Lessons Learned: Towards Effective Project-Level Impact Assessment

The experience of designing and implementing the impact assessment for the BioGov.net project has offered important lessons that can inform future efforts to evaluate ET initiatives in the bioeconomy sector and beyond. These reflections underscore both methodological insights and practical considerations for improving the quality and relevance of project-level impact assessments.

Start with a clear and flexible framework. The development of a ToC at the outset proved instrumental in establishing a shared understanding of how project activities were expected to lead to outcomes. Yet, flexibility was equally important. The iterative refinement of outcomes and indicators through stakeholder co-creation allowed for contextual relevance and responsiveness to emerging findings. Future projects should be encouraged to treat impact mapping as a living process rather than a static design.

Identify clear impact pathways and target groups. One of the most critical success factors for meaningful project-level assessment is the early identification of both intended

impact pathways and the specific target groups for change. Establishing clear causal linkages, departing from activities to outputs, and from outputs to stakeholder-specific outcomes, ensures that evaluation efforts are both strategic and actionable. In parallel, defining the priority target groups (such as educators, policymakers, or marginalised communities) helps tailor data collection tools, indicators, and communication efforts to the realities and needs of those affected. Without a clearly articulated theory of who and what should change, impact assessments risk remaining abstract or overly generic. Mapping these dimensions from the start enhances the focus, coherence, and relevance of the assessment process.

Balance qualitative depth and quantitative breadth. Combining structured survey data with participatory workshops allowed the study to capture both measurable patterns and nuanced perspectives. While the predictive nature of the assessment posed some limitations in terms of attributing long-term change, it offered an opportunity to explore the "direction of travel" and anticipated effects of the project. Future assessments can benefit from triangulating multiple sources and methods to enhance credibility and insight.

Focus on process as well as results. One key learning is the importance of evaluating not just outcomes, but the quality and inclusiveness of the processes that lead to them. For instance, the study paid attention to whether and how marginalised voices were integrated into project activities, not only what results were achieved. Such process-based indicators are essential for measuring the social justice dimensions of educational interventions.

Integrate assessment from the start. Impact assessment should not be treated as an end-of-project task. Future initiatives are advised to embed assessment frameworks from the proposal phase, allocating sufficient resources, time, and capacities to this function.

Tailor dissemination to different audiences. Another takeaway concerns the communication of findings. To ensure that impact assessment contributes to decision-making, results must be accessible and actionable. The use of infographics, summaries, and tailored messages for policymakers, practitioners, and community stakeholders can support the uptake of evidence and sustain momentum beyond project closure.

Embrace learning and adaptation. Finally, impact assessment should be approached as a tool for collective learning. Rather than focusing only on proving success, it should allow space for reflection, course correction, and knowledge exchange. In the BioGov.net project, the assessment process was used as a vehicle for dialogue, raising awareness among stakeholders, and deepening the commitment to more just and sustainable education systems in the bioeconomy.

7. Final conclusions and lessons learnt

The BioGov.net project has achieved substantial progress in shaping an innovative and inclusive governance model to support training and skills development within the European bioeconomy sector. In response to the growing need for sustainable and resilient regional development, the project has laid the foundation for a more informed, inclusive, and adaptive bioeconomy ecosystem.

At the heart of BioGov.net lies the objective of fostering **evidence-based decision-making, social inclusion, and the adoption of sustainable innovations through the use of arts-based methods**. By addressing the gaps between policy, education, and practice, the project contributed to building a more responsive and future-ready bioeconomy workforce.

A significant portion of the work, carried out through WP5, focused on co-designing policy and educational recommendations in regional and European contexts and validating/refining them through direct engagement with policymakers, educators, industry players, and civil society. This phase also led to the creation of an impact assessment framework, that can support regions evaluate the effectiveness of their bioeconomy strategies over time.

The **key Contributions of WP5** are resumed as follows:

- **Validation of Regional Guidelines:** WP5 facilitated a comprehensive **validation process** of the training and mentoring guidelines across eight EU pilot regions. This process integrated regional feedback from policymakers, educators, researchers, industry actors, and civil society, ensuring that the guidelines were **context-sensitive, flexible, and grounded in real needs**.
- **Development of an Impact Assessment Framework:** WP5 introduced a robust **impact assessment methodology** to evaluate the effectiveness of regional training programs and governance models. This tool enables regions to track progress, identify gaps, and continuously improve their bioeconomy strategies. It encourages **evidence-based policymaking** and supports long-term strategic planning.
- **Bridging Regional and EU-Level Policy:** Through targeted consultations and feedback loops, WP5 helped align regional activities with **European bioeconomy objectives**. It facilitated a two-way dialogue between local stakeholders and EU-level frameworks and strategies, strengthening the coherence of bioeconomy education and governance across scales.
- **Fostering Stakeholder Ownership:** By embedding stakeholder participation in the validation process, WP5 reinforced **co-responsibility and ownership**. This participatory approach increases the likelihood that the project's tools and guidelines will be adopted and adapted by regional authorities, training institutions, and innovation actors.
- **Scalability and Transferability:** WP5's outputs are designed to be **scalable and transferable** to other EU regions. The methodologies developed can be applied beyond the initial pilot territories, serving as a **blueprint for future regional capacity-building efforts** in the bioeconomy and other green transition sectors.

Through its participatory and evidence-driven approach, WP5 uncovered several **key lessons**:

- **Stakeholder engagement must be at the heart** of any bioeconomy training initiative. Broad and early involvement leads to more grounded, accepted, and successful outcomes.
- **Training systems must evolve** in line with emerging challenges and labour market needs.
- **Monitoring and evaluation mechanisms** are critical for scaling up good practices and adapting to changing circumstances.
- The bioeconomy requires **interdisciplinary thinking**, blending technical expertise with social insight and policy awareness.
- Long-term success depends on fostering a culture of **lifelong learning and cross-sector collaboration**.

As regions across Europe strive to develop the skills and institutions needed for the bioeconomy transition, the outputs of WP5 stand as a practical and strategic resource, shaped by collaboration, grounded in evidence, and oriented toward impact.

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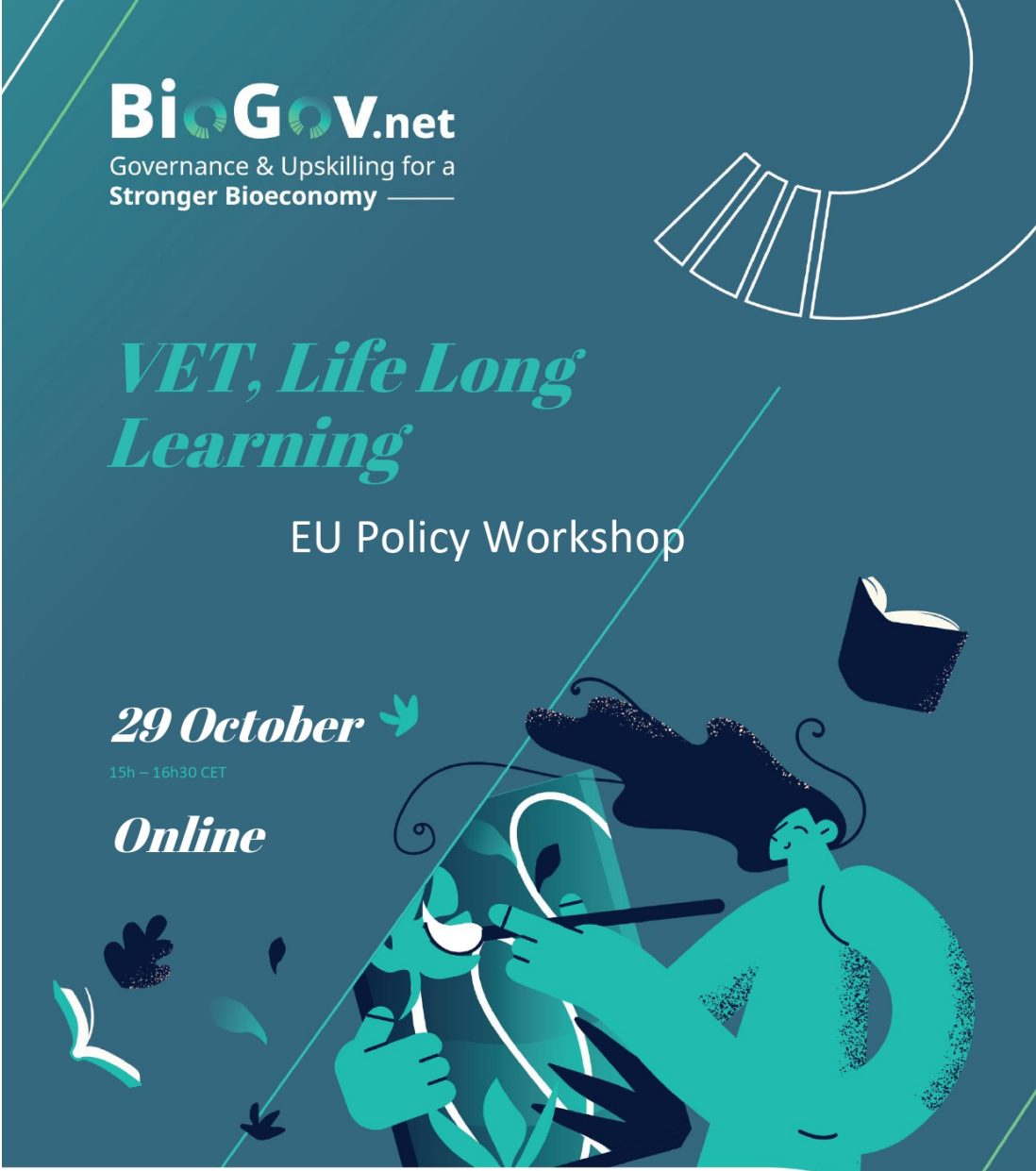
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9. Annex

9.1 Annex 1: First EU mutual learning co-creation workshop agenda



BioGov.net
Governance & Upskilling for a
Stronger Bioeconomy

***VET, Life Long
Learning***

EU Policy Workshop

29 October 🌿
15h – 16h30 CET

Online

www.biogov.net info@biogov.net @biogovnet

Consortium

CIVITTA Q-PLAN LOBA PEDAL DIT H2020 H2020 H2020 H2020 H2020 H2020 H2020 H2020

Funded by the European Union

What's next for bioeconomy education? VET and Life-long learning perspectives | EU Policy Workshop!

29 October 2024, at 15h until 16h30 CET in online format.

Objective

This workshop is organised by BioGov.net project as part of the What's next for bioeconomy education? workshops series whose aim is to provide insights and recommendations from EU funded projects, towards the bioeconomy strategy revision. After the presentation of key case studies and good practices, as well as education and policy recommendations stemming from the most relevant EU projects and initiatives involved in VET and Life-long learning, the objective of the workshop is to involve participants in an interactive exercise to co-design educational and policy recommendations to inform the revision of the European Bioeconomy Strategy.

Participating Projects:

- [Engage4Bio](#)
- [Scientix](#)
- [Circular Bricks](#)
- [ICA CoP BioEdu](#)

Target Groups

- BioGov.net CoP members
- BioGov.net Innovation Board members
- Other relevant projects & initiatives
- Policy actors at EU level
- Educational actors at EU level

Agenda | 90 minutes

15h – 15h05	Opening and Welcome – Presentation of the agenda and scope of the workshop
15h05 – 15h40 CET	Presentation of inspirational case studies and Education and Policy recommendations from EU funded projects and initiatives • BioGov.Net • Engage4Bio • Scientix • Circular Bricks • ICA CoP BioEdu
15h40-16h30 CET	Interactive Discussion Co-creation of Educational Recommendations - target: Educational community - For formal and informal education (including Awareness and Education). Collaboratively develop through a MIRO exercise, already pre-filled with the contributions from the inspirational case studies to develop recommendations to be uptaken by the educational community. Co-Creation of Policy Recommendations -target: Policy Makers - Collaboratively develop through a MIRO exercise, already pre-filled with the contributions from the inspirational case studies policy recommendations for sustainable bioeconomy education governance models at the European level. This involves sharing and discussing best practices, innovative policies, and regulatory measures to boost bioeconomy education in formal and non-formal education.

9.2 Annex 2: Second EU mutual learning co-creation workshop agenda



Impact assessment and its role in policymaking: Co-designing bioeconomy education and training in Europe

EU Co-creation Workshop

31st of March

15.00 – 16.30 CET

Online

Objective

This workshop is organised by BioGov.net project, which aims to explore innovative governance models for the bioeconomy education and co-create guidelines for bioeconomy training and mentoring, through a multistakeholder approach, while integrating humanities, art, design and culture to foster the transition to an innovative and inclusive bioeconomy. The aim of the workshop is to start a discussion on the role of impact assessment in bioeconomy, to present and validate the preliminary results of the BioGov.net project's impact assessment study, and to co-create implications of impact assessment for future policy.

After setting the scene during the keynote speech and presenting the preliminary results from the BioGov.net project's impact assessment study, the workshop will involve participants in an interactive session to first, validate BioGov.net's impact assessment study, and second, to co-create policy recommendations and/or share experiences or opinions on impact assessment approach for EU bioeconomy policy design.

Target Groups

- BioGov.net CoP members
- BioGov.net Innovation Board members
- Other relevant projects and initiatives
- Policy actors at EU level
- Educational actors at EU level

Consortium



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101080742

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Agenda | 90 minutes

Agenda	
15h – 15h10	Opening and Welcome –Presentation of the agenda and scope of the workshop
15h10 – 15h25	European Commission's new agenda and Bioeconomy Giuseppe Pellegrino, European Commission
15h25 – 15h40	A project-level Impact Assessment Study: The BioGov.net example Yaprak Kurtsal, University of Bologna
15h40 – 15h50	From project experience to policy-wide relevance Davide Viaggi, University of Bologna
15h50 – 16h15	<i>Two stage co-creation exercise</i> <i>First stage: Collecting feedback and validation on the BioGov.net Project's impact assessment study</i> <i>Second stage: Co-creating policy recommendations and implications for EU bioeconomy policy, including contribution of impact assessment to policy, and supporting governance mechanisms to design adaptive and responsive education and training policies</i>
16h15 – 16h30	Discussion and closing remarks

Consortium



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101060742

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Bridging generations: Education and Policy to shape a sustainable future

Brussels, 10 April 2025

ACE Events - Avenue d'Auderghem 22 (Brussels)

9.30 – 15.00

Concept note

Bioeconomy uses renewable biological resources to produce goods, energy and services, being a driver for economic growth, job creation and long-term sustainable development. It's essential everyone undertakes a commitment to promote a sustainable transition and address its associated challenges, such as responsible management of natural resources, global competition that respect the ecological conditions of the Earth and environmental impacts (updated Bioeconomy Strategy 2018).

For this reason, the Action 2.4 of the Strategy emphasises the education to the bioeconomy to empower young people to tackle current and future global challenges.

The same vision has been confirmed again by the re-elected President Ursula von der Leyen who, in the political guidelines "EUROPE'S CHOICE" for the next European Commission 2024-2029, and in the Mission Letter to Jessika Roswall, Commissioner for Environment, Water Resilience and a Competitive Circular Economy, reaffirmed the importance of the bioeconomy and the enabling role of education for the achievement of the political objectives such as prosperity and competitiveness, inclusive societies and environmental sustainability.

The European Commission has funded through Horizon Europe two coordination and support actions, GenB and BioBeo, both aiming at identifying new educational pathways to support young people in the green transition through the sustainable and circular bioeconomy. Both projects are getting to the end after a 30 month journey and are eager to share their results, educational models, tools and materials.

This event contributes to the discussion for the revision of the Bioeconomy Strategy providing policy makers and other relevant stakeholders with actionable knowledge and recommendations, ready to be exploited in bioeconomy education as well as in other educational contexts.

GenB Consortium



BioBeo Consortium





10th of April 2025	
9.30	Registration & Welcome Coffee
10.00-10.15	Welcome and Introduction (Conference Hall) - Chiara Pocaterra, Head of Projects Department – APRE, GenB project - Máire Nic and Bhaird, Maynooth University, BioBeo project - Gaëlle Le Bouler, Project Officer GenB and BioBeo, REA (European Research Executive Agency – European Commission)
10.15-continuing	Education in Action (Conference Hall) Experiential exhibition of bioeconomy tools and materials developed by GenB, BioBeo, BioGov.Net, SLEs, CLEVERFOOD, LOESS, NBSEduWorld, ProBleu, Circular Schools, Life Terra, BlueMissionMed and BlueRev HORIZON EUROPE projects, to raise awareness and educate the young generation and citizens.
10.30-11.30	Education as main driver of the circular and sustainable transition towards the future Bioeconomy Strategy (Conference Hall) Moderator: Moderator: Flavia Fusconi (APRE, GenB) & Laoise Ní Chléirigh (Maynooth University, BioBeo) Roundtable: - GenB project: Chiara Pocaterra, Head of Projects Department -APRE - BioBeo project: Tom Curran, UCD - BioGov.Net project: Selenia Marinelli, Bio-Architect and Project Manager – FVA - SLEs project: Laura Mentini, Project Manager – APRE - CLEVERFOOD project: Clara Boissenin, Project Manager- ECSITE - LOESS project: Giuseppe Mossuti, Project Manager, Science Education Department – EUN - ProBleu project: Eli Bonfill i Molina, Institut de Ciències del Mar (ICM-CSIC) – Remote
11:30 – 12:00	Coffee Break and Education in Action (Lounge area)



GenB Consortium



BioBeo Consortium





12:00-13:00	Recommendations to shape future circular and sustainable bioeconomy education (Conference Hall) Moderators: Moderators: Susanna Albertini (FVA, GenB) and Lee Wray-Davies (Foundation for Environmental Education, BioBeo) Roundtable: - Eddy Grand-Meyer, Outreach & Engagement Specialist" -European Schoolnet, GenB project - Sakshi Anand, UCD, BioBeo project - Wim Haentjens - Policy Officer, European Commission, DG Research and Innovation - Nicolás Giacomuzzi-Moore, Executive Director, Circular Bio-based Europe Joint Undertaking (CBE JU) - Michael Losch, Coordinator for Bioeconomy, European Commission, DG AGRI - Valentina Vavassori, GenB Ambassador (GenB project, FVA) - Kristina Kolarova, GenB Ambassador, (GenB project, PEDAL) - Alessia Careccia, GenB Ambassador and EU Young Ocean Advocate (BlueRev and GenB, APRE)
13.00-15.00	Networking Lunch and Education in Action (Lounge area)

GenB Consortium



BioBeo Consortium



9.5 Annex 4: BioGov.net final event agenda



Growing Together: Art, Inclusion & Green Skills

Final event of BioGov.net

Concept

Join us for the **BioGov.net Final Event!**

 **Date:** 14th of May 2025, from 14h30 to 17h30 CEST

 **Location:** [Comet Louise](#), Brussels

We're excited to unveil the key results of the **BioGov.net Horizon Europe project** after two years of dynamic collaboration across eight European countries!

This event will gather policymakers, educators, researchers, and bioeconomy practitioners to explore how our findings—rooted in local needs and stakeholder co-creation—can empower regions to lead the way in sustainable, inclusive bioeconomy development.

Expect a lively mix of presentations and interactive sessions, including:

- **Designing a Bio-Based Education Programme Session**
- A **sensory experience** during our *Art Meets Bioeconomy Education* session
- Reflections on inclusive policy pathways, innovative training models, and more.
- **Coffee Breaks & Networking**, moments for participants to connect and share their experiences and contexts informally—regions, institutions, or projects.

And don't miss our **Exhibition Corner**, featuring a showcase of key results and some truly **disruptive** bio-based goods

Registration open: [Here](#)

Agenda Consortium

CIVITTA

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Agenda	
14h30 – 14h45	Registration & Welcome coffee
14h45 – 15h00	Welcome & Introduction
15h00 – 15h30	Policy & Education Recommendations
15h30 – 16h00	Coffee Break & Networking
16h00 – 16h30	Let's design a biobased education programme Interactive Session
16h30 – 17h00	Art Meets Bioeconomy Education Interactive Sensory Session
17h00-17h15	Final Remarks
17h15	Final Coffee Break & Networking

Consortium



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9.6 Annex 5: The indicator list for each of the BioGov.net beneficiary group

Table 11 – The indicator list for the impact assessment framework of the BioGov.net

Outcome	Indicator
EDUCATORS - EDUCATOR GROUP 1	
Increase in continued interest/priority placed on the topic and continued/continuous professional development (Utami et al., 2017; Allen et al., 2021)	Followed a new course/module/training on the topic
	Read an informative book/text/content on the topic
	Followed a seminar/podcast/webinar (or similar) on the topic
	Conducted a research and read any related literature/materials/case studies on the topic
	Having a willingness or plan to keep learning/researching more on the topic in the near future
Increase in the attention placed to gender issues, inclusivity and marginalised groups in decision-making	Attention to inclusivity and gender equality
	Consideration of marginalised groups
Increase in the ability/willingness to influence more learners on the topic (and trigger continuous and self-regulated learning in students/learners (multiplier effect on students))	Consideration to the use of arts, eco-design or culture in teaching or working with bioeconomy
	Introducing any new discussion, materials or exercise (or similar) in your teaching content on the topic
	(If yes to the previous, the perception of whether they think they could/or will be able to trigger interest in their students; and peers)
	Sharing ideas/suggestions or engaged in discussions on the topic with your peer trainers/educators
Improvement in innovative teaching skills	Having a willingness to introduce more of this topic in your courses/discussions in the near future
	Taking any additional steps in the following
	Encouraged creative behavior in students
	Provided real-life examples
	Taken measures to provide soft skills (e.g. Communication, team-work, leadership, critical thinking etc.)
	Moved beyond traditional approaches to assess improvement (e.g. Standard tests)
	Motivated active participation
	Encouraged hands-on activities
	Showed flexibility and adaptability to students' needs
	Incorporating technological/digital tools for interactive instruction
	Encouraged group work, collaboration, peer-to-peer learning
	Motivated problem solving and critical thinking
EDUCATION PROVIDERS/MANAGERS - EDUCATOR GROUP 2	
Increase in the motivation towards profession, leading to continued interest/priority placed to the topic and continuous/continued learning	Followed a new course/module/training on the topic
	Read an informative book/text/content on the topic
	Followed a seminar/podcast/webinar (or similar) on the topic
	Conducted a research and read any related literature/materials/case studies on the topic
	Having a willingness or plan to keep learning/researching more on the topic in the near future
Increase in the attention placed to gender issues, inclusivity and marginalised groups in decision-making	Attention to inclusivity and gender equality
	Consideration of marginalised groups
	Consideration to the use of arts, eco-design or culture in teaching or working with bioeconomy

Outcome	Indicator
Prioritizing Bioeconomy in decision-making, course development	Setting new targets/KPIs on bioeconomy/circular economy/sustainability etc. in school/course/module or programs
	Mobilising funds or collaborations for new programs/courses/modules on bioeconomy/circular economy/sustainability etc.
	Introducing new programs/courses/modules on bioeconomy/circular economy/sustainability etc.
	Hiring educators or collaborating with experts that are trained/experienced on bioeconomy/circular economy/sustainability etc.
Motivating educators' continuous learning on the topic	Mobilising funds for continuous training of trainers on the topic
	Encourage and facilitate continuous training of trainers on the topic
Increase in the ability/possibility to influence peers/stakeholders	Giving a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event
	Writing and publishing a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity
	Taking part in discussions in meetings/roundtables or sessions, and/or providing an opinion/or triggered further discussion on bioeconomy, circular economy, sustainability and/or inclusivity
	Sharing ideas/suggestions or engaging in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues
CIVIL SOCIETY ORGANISATION	
Increase in continued continuous interest/priority placed to the topic and continued/continuous professional development	Followed a new course/module/training on the topic
	Read an informative book/text/content on the topic
	Followed a seminar/podcast/webinar (or similar) on the topic
	Conducted a research and read any related literature/materials/case studies on the topic
	Having a willingness or plan to keep learning/researching more on the topic in the near future
Increase in the attention placed to gender issues, inclusivity and marginalised groups in decision-making	Attention to inclusivity and gender equality
	Consideration of marginalised groups
	Consideration to the use of arts, eco-design or culture in teaching or working with bioeconomy
Increase in skill generation in profession, including ability to use innovative methodologies and take more informed decisions to set long term strategies	Improvement in any one (or more) of the skills below:
	Sustainability literacy and knowledge (sustainability issues, terminology/language, stakeholder needs etc. related to your work/profession)
	Effective collaboration and communication (empathy, conflict management, reliability, storytelling)
	Analytical thinking (creative problem-solving behaviour, prioritizing, making connections, data skills)
	Forward-thinking (identifying opportunities for change, plan for long-term improvement)
	Empowering leadership (having difficult conversations with colleagues, giving feedback, motivating others, delegating work)
	Project management (planning, execution, resource management, risk management)
	Taking ownership (taking initiative/direction, taking action when needed, resilience, realistic plans and goals)
	IT skills for sustainability (data management, digital communication, job related software)
	Diversity and inclusion (being aware of (unconscious) prejudices, having sincere/ open communication, inclusive decision-making)
Increase in the ability/possibility to influence peers/stakeholders,	Gave a presentation or a speech on the topic in a relevant meeting/session/roundtable/panel event
	Wrote and published a note, brief, informative piece, research etc. on the topic

Outcome	Indicator
market transition and policy	Took part in discussions in meetings/roundtables or sessions on the topic and provided an opinion/or triggered further discussion
	Sharing ideas/suggestions or engaged in discussions on the topic with your peers/colleagues
BIOECONOMY PROFESSIONALS	
Increase in the motivation towards profession, leading to continued interest/priority placed to the topic and continuous/continued learning	Followed a new course/module/training on the topic
	Read an informative book/text/content on the topic
	Followed a seminar/podcast/webinar (or similar) on the topic
	Conducted a research and read any related literature/materials/case studies on the topic
	Having a willingness or plan to keep learning/researching more on the topic in the near future
Increase in the attention placed to gender issues, inclusivity and marginalised groups in decision-making	Attention to inclusivity and gender equality
	Consideration of marginalised groups
	Consideration to the use of arts, eco-design or culture in teaching or working with bioeconomy
Increase in skills/competencies in work/profession - leading to innovativeness at work /profession (Harvard Business School, University College Estate Management, Greener Insights)	Improvement in any one (or more) of the skills below:
	Sustainability literacy and knowledge (sustainability issues, terminology/language, stakeholder needs etc. related to your work/profession)
	Effective collaboration and communication (empathy, conflict management, reliability, storytelling)
	Analytical thinking (creative problem solving behaviour, prioritizing, making connections, data skills)
	Forward-thinking (identifying opportunities for change, plan for long-term improvement)
	Empowering leadership (having difficult conversations with colleagues, giving feedback, motivating others, delegating work)
	Project management (planning, execution, resource management, risk management)
	Taking ownership (taking initiative/direction, taking action when needed, resilience, realistic plans and goals)
	IT skills for sustainability (data management, digital communication, job related software)
	Diversity and inclusion (being aware of (unconscious) prejudices, having sincere/ open communication, inclusive decision-making)
Bringing the new skills/and way of thinking to the workplace, influencing the work culture and peers (and stakeholders)	Raised topics, discussed or brainstormed about topics/issues/concerns/skill needs etc. related to sustainability or circular bioeconomy etc. with peers
	Suggested improvements or innovations in the workplace or in the way of doing business about topics/issues/concerns/skill needs etc. related to sustainability or circular bioeconomy etc.
	Led to changes, innovations, improvements in the workplace about topics/issues/concerns/skill needs etc. related to sustainability or circular bioeconomy etc.
POLICY MAKERS	
Increase in the motivation towards profession, leading to continued interest/priority placed to the topic and continuous/continued learning	Followed a new course/module/training on the topic
	Read an informative book/text/content on the topic
	Followed a seminar/podcast/webinar (or similar) on the topic
	Conducted a research and read any related literature/materials/case studies on the topic
	Having a willingness or plan to keep learning/researching more on the topic in the near future
Increase in the attention placed to gender issues,	Attention to inclusivity and gender equality
	Consideration of marginalised groups

Outcome	Indicator
inclusivity and marginalised groups in decision-making	Consideration to the use of arts, eco-design or culture in teaching or working with bioeconomy
Higher advanced decision-making/policy-making skills - backed by science and evidence (European Commission's Competence Framework for innovative policymaking)	Improvement in any one (or more) of the skills below:
	Advising policy (identifying policy problems, designing and evaluating policy, drafting briefings)
	Innovating (creative thinking, systems thinking, critical thinking, learning and unlearning, managing transformations)
	Working with evidence (scientific and data literacy, identifying evidence needs, gathering and assessing evidence, working with data)
	Being futures literate (forward-looking, understanding change, influencing change, crafting long-term strategies)
	Inclusive stakeholder and citizen engagement (planning, designing and executing inclusive stakeholder engagement; planning, designing and executing inclusive stakeholder consultation)
	Collaboration (collaborative mindset, facilitation processes, empathy, facilitating communities of practice, networking)
	Communication (clear writing, speaking with impact, story-telling, visual literacy, dealing with mis and dis-information, interacting with different media)
Impacting peers/other stakeholders/work culture - related to policy-making	Raised topics, discussed or brainstormed about topics/issues/concerns/skill needs etc. related to sustainability or circular bioeconomy etc. with peers
	Suggested improvements or innovations in the workplace or in the way of doing business about topics/issues/concerns/skill needs etc. related to sustainability or circular bioeconomy etc.
	Led to changes, innovations, improvements in the workplace about topics/issues/concerns/skill needs etc. related to sustainability or circular bioeconomy etc.
Increase in the ability to translate EU policy into practical action (The Urban Institute, The Scottish Government Policy-Practice Framework)	Improvement in the execution of any one or more of the policy related actions below:
	Clearly setting or revising (already set) impactful strategic goals
	Designing an execution plan
	Developing regular action plans and monitoring progress and outcomes
	Tying the goals to budget and/or securing funds to support policy implementation and operational expenditures
	Coordinated/supported or facilitated implementing agencies/partners to support effective planning and performance management
	Used or facilitated use of data systems and processes to track implementation, provide evidence to inform modifications and to benchmark against measures of progress and success
FUNDING AGENCY	
Increase in continued continuous interest/priority placed on the topic and continued/continuous professional development (Utami et al., 2017; Allen et al., 2021)	Followed a new course/module/training on the topic
	Read an informative book/text/content on the topic
	Followed a seminar/podcast/webinar (or similar) on the topic
	Conducted a research and read any related literature/materials/case studies on the topic
Increase in the attention placed to gender issues, inclusivity and marginalise groups in decision-making	Having a willingness or plan to keep learning/researching more on the topic in the near future
	Attention to inclusivity and gender equality
	Consideration of marginalised groups
	Consideration to the use of arts, eco-design or culture in teaching or working with bioeconomy
Increase in skill generation in	Setting new targets/KPIs on bioeconomy/circular economy/sustainability etc. in school/course/module or programs

Outcome	Indicator
profession, including ability to use innovative methodologies and take more informed decisions to set long term strategies	Mobilising funds or collaborations for new programs/courses/modules on bioeconomy/circular economy/sustainability etc. Mobilising funds for any initiative related to bioeconomy, circular economy or sustainability etc.
Increase in skills/competencies in work/profession - leading to innovativeness at work /profession (Harvard Business School, University College Estate Management, Greener Insights)	Sustainability literacy and knowledge (sustainability issues, terminology/language, stakeholder needs etc. related to your work/profession)
	Effective collaboration and communication (empathy, conflict management, reliability, storytelling)
	Analytical thinking (creative problem -solving behaviour, prioritizing, making connections, data skills)
	Forward-thinking (identifying opportunities for change, plan for long-term improvement)
	Empowering leadership (having difficult conversations with colleagues, giving feedback, motivating others, delegating work)
	Project management (planning, execution, resource management, risk management)
	Taking ownership (taking initiative/direction, taking action when needed, resilience, realistic plans and goals)
	IT skills for sustainability (data management, digital communication, job related software)
	Diversity and inclusion (being aware of (unconscious) prejudices, having sincere/ open communication, inclusive decision-making)
Impacting peers/other stakeholders/work culture - related to policy-making	Giving a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event
	Writing and publishing a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity
	Taking part in discussions in meetings/roundtables or sessions, and/or providing an opinion/or triggered further discussion on bioeconomy, circular economy, sustainability and/or inclusivity
	Sharing ideas/suggestions or engaging in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues
	Taking the necessary steps to inform my peers, colleagues or stakeholders I work with about bioeconomy, circular economy, sustainability and/or inclusivity
ORGANISATION WORKING WITH SOCIAL INCLUSION	
Increase in continued interest/priority placed on the topic and continued/continuous professional development (Utami et al., 2017; Allen et al., 2021)	Followed a new course/module/training on the topic
	Read an informative book/text/content on the topic
	Followed a seminar/podcast/webinar (or similar) on the topic
	Conducted a research and read any related literature/materials/case studies on the topic
	Having a willingness or plan to keep learning/researching more on the topic in the near future
Increase in the attention placed to gender issues, inclusivity and marginalised groups in decision-making	Attention to inclusivity and gender equality
	Consideration of marginalised groups
	Consideration to the use of arts, eco-design or culture in teaching or working with bioeconomy
Increase in skills/competencies in work/profession - leading to innovativeness at work /profession	Sustainability literacy and knowledge (sustainability issues, terminology/language, stakeholder needs etc. related to your work/profession)
	Effective collaboration and communication (empathy, conflict management, reliability, storytelling)
	Analytical thinking (creative problem-solving behaviour, prioritizing, making connections, data skills)

Outcome	Indicator
(Harvard Business School, University College Estate Management, Greener Insights)	Forward-thinking (identifying opportunities for change, plan for long-term improvement)
	Empowering leadership (having difficult conversations with colleagues, giving feedback, motivating others, delegating work)
	Project management (planning, execution, resource management, risk management)
	Taking ownership (taking initiative/direction, taking action when needed, resilience, realistic plans and goals)
	IT skills for sustainability (data management, digital communication, job related software)
	Diversity and inclusion (being aware of (unconscious) prejudices, having sincere/ open communication, inclusive decision-making)
Impacting peers/other stakeholders/work culture - related to policy-making	Giving a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event
	Writing and publishing a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity
	Taking part in discussions in meetings/roundtables or sessions, and/or providing an opinion/or triggered further discussion on bioeconomy, circular economy, sustainability and/or inclusivity
	Sharing ideas/suggestions or engaging in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues
	Taking the necessary steps to inform my peers, colleagues or stakeholders I work with about bioeconomy, circular economy, sustainability and/or inclusivity
ART SECTOR	
Increase in continued interest/priority placed on the topic and continued/continuous professional development (Utami et al., 2017; Allen et al., 2021)	Followed a new course/module/training on the topic
	Read an informative book/text/content on the topic
	Followed a seminar/podcast/webinar (or similar) on the topic
	Conducted a research and read any related literature/materials/case studies on the topic
	Having a willingness or plan to keep learning/researching more on the topic in the near future
Increase in the attention placed to gender issues, inclusivity and marginalised groups in decision-making	Attention to inclusivity and gender equality
	Consideration of marginalised groups
	Consideration to the use of arts, eco-design or culture in teaching or working with bioeconomy
Increase in skills/competencies in work/profession - leading to innovativeness at work /profession (Harvard Business School, University College Estate Management, Greener Insights)	Sustainability literacy and knowledge (sustainability issues, terminology/language, stakeholder needs etc. related to your work/profession)
	Effective collaboration and communication (empathy, conflict management, reliability, storytelling)
	Analytical thinking (creative problem-solving behaviour, prioritizing, making connections, data skills)
	Forward-thinking (identifying opportunities for change, plan for long-term improvement)
	Empowering leadership (having difficult conversations with colleagues, giving feedback, motivating others, delegating work)
	Project management (planning, execution, resource management, risk management)
	Taking ownership (taking initiative/direction, taking action when needed, resilience, realistic plans and goals)
	IT skills for sustainability (data management, digital communication, job related software)
	Diversity and inclusion (being aware of (unconscious) prejudices, having sincere/ open communication, inclusive decision-making)

Outcome	Indicator
Impacting peers/other stakeholders/work culture - related to policy-making	Giving a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event
	Writing and publishing a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity
	Taking part in discussions in meetings/roundtables or sessions, and/or providing an opinion/or triggered further discussion on bioeconomy, circular economy, sustainability and/or inclusivity
	Sharing ideas/suggestions or engaging in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues
	Taking the necessary steps to inform my peers, colleagues or stakeholders I work with about bioeconomy, circular economy, sustainability and/or inclusivity

9.7 Annex 6: The Questionnaire

The following questionnaire was used to collect feedback from stakeholders engaged in the BioGov.net project. It is structured in two main parts: general questions addressed to all participants, and stakeholder-specific sections. Respondents were asked to indicate their professional background and then proceed to answer the corresponding questions.

Table 12 – The Questionnaire for the impact assessment framework

Question	Response Options
Common Questions for all stakeholders	
In which country are you based?	• Italy • Germany • Netherlands • Portugal • Estonia • Slovakia • Greece • Czechia
In which way or ways where you engaged with the BioGov.net Project?	• Member of the Community of Practice • Member of the Innovation Board • Participated in events • Read project outputs • Representative of a sister project • Other: please indicate
Please choose the profession/occupation that applies to you (or is the closest)	• Educator/trainer/teacher • Education professionals/managers • Bioeconomy professional • Policy-maker • Funding agency • Civil society organization • Social inclusion project • Art sector
Questions specific to the Education Provider Group 1 - Educator/trainer/teacher	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply.	• Followed a course/module/training on bioeconomy, circular economy, and/or sustainability • Planning to follow a course/module/training on bioeconomy, circular economy, and/or sustainability in the following year • Read an informative book/text/content on bioeconomy, circular economy, and/or sustainability • Planning to read an informative book/text/content on bioeconomy, circular economy, and/or sustainability in the following year • Followed a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability • Planning to follow a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability in the following year • Conducted research and read related literature/sources on bioeconomy, circular economy and/or sustainability to learn more on the topic • Planning to conduct research and read related literature/ sources on bioeconomy, circular economy and/or sustainability to learn more on the topic in the following year • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have	• Paid special attention to inclusivity and/or gender equality

Question	Response Options
you placed special attention to the following topics or are you planning to place special attention in the next one year, to the following topics in the execution of your work (daily tasks, teaching, communication etc.).	• Planning to pay special attention to inclusivity and/or gender equality in the following year • Paid attention to marginalised groups • Planning to pay special attention to marginalised groups in the following year • Paid special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy • Planning to pay special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy, in the following year • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply.	• Introduced any new discussion, materials or exercise (or similar) on bioeconomy, circular economy and/or sustainability in your teaching content • Planning to introduce any new discussion, materials or exercise (or similar) in your teaching content on bioeconomy, circular economy and/or sustainability in your teaching content • Shared ideas/suggestions or engaged in discussions on bioeconomy, circular economy and/or sustainability with your peer trainers/educators • Planning to share ideas/suggestions or engage in discussions on bioeconomy, circular economy and/or sustainability with your peer trainers/educators • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
If you introduced (or planning to introduce in the next year) any new discussion, materials or exercise on bioeconomy, circular economy or sustainability to your students/learners, do you think you were able to or you are likely to trigger interest in them on these topics?	• Yes • No
If you have shared ideas/suggestions or engaged in discussions on bioeconomy, circular economy and/or sustainability with your peer trainers/educators (or planning to do so in the next year), do you think you were able to or you are likely to trigger interest in them on these topics?	• Yes • No
Since you have engaged with the BioGov.net Project, have you taken any additional steps or you are planning to take additional steps in the next one year, in your teaching, in the following areas? Please choose all that apply.	• Encouraged creative behavior in students • Planning to take steps to encourage creative behavior in students • Provided real-life examples in the topic that you are working on • Planning to provide real-life examples in the topic that you are working on • Taken measures to provide soft skills (e.g. Communication, teamwork, leadership, critical thinking etc.) • Planning to take measures to provide soft skills (e.g. Communication, teamwork, leadership, critical thinking etc.)

Question	Response Options
	• Moved beyond traditional approaches to assess improvement (e.g. Standard tests) • Planning to move beyond traditional approaches to assess improvement (e.g. Standard tests) • Motivated active participation of your students • Planning to take steps to motivate active participation of your students • Encouraged hands-on activities of your students • Planning to take steps to encourage hands-on activities of your students • Showed flexibility and adaptability to your students' needs • Planning to show flexibility and adaptability to your students' needs • Incorporated technological/digital tools for interactive instruction • Planning to incorporate technological/digital tools for interactive instruction • Encouraged group work, collaboration, peer-to-peer learning • Planning to take steps to encourage group work, collaboration, peer-to-peer learning • Motivated problem solving and critical thinking • Planning to take steps to motivate problem solving and critical thinking • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Questions specific to the Education Provider Group 2 – Education professionals/ managers/ administrators/ researchers/ school or teaching programs' directors	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply.	• Followed a course/module/training on bioeconomy, circular economy, and/or sustainability • Planning to follow a course/module/training on bioeconomy, circular economy, and/or sustainability in the following year • Read an informative book/text/content on bioeconomy, circular economy, and/or sustainability • Planning to read an informative book/text/content on bioeconomy, circular economy, and/or sustainability in the following year • Followed a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability • Planning to follow a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability in the following year • Conducted research and read related literature/sources on bioeconomy, circular economy and/or sustainability to learn more on the topic • Planning to conduct research and read related literature/ sources on bioeconomy, circular economy and/or sustainability to learn more on the topic in the following year • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you placed special attention to the following topics or are you planning to place special attention in the next one year, to the following topics in the execution of your work (daily tasks, teaching, communication etc.).	• Paid special attention to inclusivity and/or gender equality • Planning to pay special attention to inclusivity and/or gender equality in the following year • Paid attention to marginalised groups • Planning to pay special attention to marginalised groups in the following year • Paid special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy • Planning to pay special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy, in the following year • None of the above/Other

Question	Response Options
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following in the scope of your work? Please choose all that apply.	• Set new targets/KPIs on bioeconomy/circular economy/sustainability etc. in school/course/module or programs • Planning to set new targets/KPIs on bioeconomy/circular economy/sustainability etc. in school/course/module or programs • Mobilised funds or collaborations for new programs/courses/modules on bioeconomy/circular economy/sustainability etc. • Planning to mobilise funds or collaborations for new programs/courses/modules on bioeconomy/circular economy/sustainability etc. • Introduced new programs/courses/modules on bioeconomy/circular economy/sustainability etc. • Planning to introduce new programs/courses/modules on bioeconomy/circular economy/sustainability etc. • Hired educators or collaborated with experts that are trained/experienced on bioeconomy/circular economy/sustainability etc. • Planning to hire educators or collaborate with experts that are trained/experienced on bioeconomy/circular economy/sustainability etc. • Mobilised funds for continuous training of trainers • Planning to mobilise funds for continuous training of trainers • None of the above/Other
• In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply.	• Gave a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event • Planning to give a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event • Wrote and published a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity • Planning to write and publish a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity • Took part in discussions in meetings/roundtables or sessions, and/or provided an opinion/or triggered further discussion on bioeconomy, circular economy, sustainability and/or inclusivity • Planning to take part in discussions in meetings/roundtables or sessions, and/or provide an opinion/or trigger further discussion on bioeconomy, circular economy, sustainability and/or inclusivity • Shared ideas/suggestions or engaged in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues • Planning to share ideas/suggestions or engage in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Questions specific to the Economic actor/bioeconomy professional (from across key sub-sectors/value chains)	
Since you have engaged with the BioGov.net Project, have you done or are you planning	• Followed a course/module/training on bioeconomy, circular economy, and/or sustainability

Question	Response Options
to do in the next one year, any one or more of the following? Please choose all that apply.	• Planning to follow a course/module/training on bioeconomy, circular economy, and/or sustainability in the following year • Read an informative book/text/content on bioeconomy, circular economy, and/or sustainability • Planning to read an informative book/text/content on bioeconomy, circular economy, and/or sustainability in the following year • Followed a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability • Planning to follow a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability in the following year • Conducted research and read related literature/sources on bioeconomy, circular economy and/or sustainability to learn more on the topic • Planning to conduct research and read related literature/ sources on bioeconomy, circular economy and/or sustainability to learn more on the topic in the following year • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you placed special attention to the following topics or are you planning to place special attention in the next one year, to the following topics in the execution of your work (daily tasks, teaching, communication etc.).	• Paid special attention to inclusivity and/or gender equality • Planning to pay special attention to inclusivity and/or gender equality in the following year • Paid attention to marginalised groups • Planning to pay special attention to marginalised groups in the following year • Paid special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy • Planning to pay special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy, in the following year • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, do you believe you have shown improvement or you are likely to show improvement in the next one year, in any of the areas below? Please choose all that apply.	• Sustainability literacy and knowledge (sustainability issues, terminology/language, stakeholder needs etc. related to your work/profession) • Effective collaboration and communication (empathy, conflict management, reliability, storytelling) • Analytical thinking (creative problem-solving behaviour, prioritizing, making connections, data skills) • Forward-thinking (identifying opportunities for change, plan for long-term improvement) • Empowering leadership (having difficult conversations with colleagues, giving feedback, motivating others, delegating work) • Project management (planning, execution, resource management, risk management) • Taking ownership (taking initiative/direction, taking action when needed, resilience, realistic plans and goals) • IT skills for sustainability (data management, digital communication, job related software) • Diversity and inclusion (being aware of (unconscious) prejudices, having sincere/ open communication, inclusive decision-making) • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you done or are you planning	• Raised questions/concerns, or discussed or brainstormed about topics/issues/skill needs etc. related to bioeconomy, circular economy, sustainability and/or inclusivity with peers

Question	Response Options
to do in the next one year, any one or more of the following in the scope of your work? Please choose all that apply.	• Planning to raise questions/concerns, or discuss or brainstorm about topics/issues/skill needs etc. related to bioeconomy, circular economy, sustainability and/or inclusivity with peers • Suggested improvements or innovations in the workplace or in the way of doing business about topics/issues/concerns/skill needs etc. related to bioeconomy, circular economy, sustainability and/or inclusivity • Planning to suggest improvements or innovations in the workplace or in the way of doing business about topics/issues/concerns/skill needs etc. related to bioeconomy, circular economy, sustainability and/or inclusivity • Led to changes, innovations, improvements in the workplace about topics/issues/concerns/skill needs etc. related to bioeconomy, circular economy, sustainability and/or inclusivity • Planning to take steps to lead to changes, innovations, improvements in the workplace about topics/issues/concerns/skill needs etc. related to bioeconomy, circular economy, sustainability and/or inclusivity • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Questions specific to the Policy maker	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply.	• Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply. • Followed a course/module/training on bioeconomy, circular economy, and/or sustainability • Planning to follow a course/module/training on bioeconomy, circular economy, and/or sustainability in the following year • Read an informative book/text/content on bioeconomy, circular economy, and/or sustainability • Planning to read an informative book/text/content on bioeconomy, circular economy, and/or sustainability in the following year • Followed a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability • Planning to follow a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability in the following year • Conducted research and read related literature/sources on bioeconomy, circular economy and/or sustainability to learn more on the topic • Planning to conduct research and read related literature/ sources on bioeconomy, circular economy and/or sustainability to learn more on the topic in the following year • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you placed special attention to the following topics or are you planning to place special attention in the next one year, to the following topics in the execution of your work (daily tasks, teaching, communication etc.).	• Paid special attention to inclusivity and/or gender equality • Planning to pay special attention to inclusivity and/or gender equality in the following year • Paid attention to marginalised groups • Planning to pay special attention to marginalised groups in the following year • Paid special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy • Planning to pay special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy, in the following year • None of the above/Other

Question	Response Options
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, do you believe you have shown improvement or you are likely to show improvement in the next one year, in any of the areas below? Please choose all that apply	• Advising policy (identifying policy problems, designing and evaluating policy, drafting briefings) • Innovating (creative thinking, systems thinking, critical thinking, learning and unlearning, managing transformations) • Working with evidence (scientific and data literacy, identifying evidence needs, gathering and assessing evidence, working with data) • Being futures literate (forward-looking, understanding change, influencing change, crafting long-term strategies) • Inclusive stakeholder and citizen engagement (planning, designing and executing inclusive stakeholder engagement; planning, designing and executing inclusive stakeholder consultation) • Collaboration (collaborative mindset, facilitation processes, empathy, facilitating communities of practice, networking) • Communication (clear writing, speaking with impact, storytelling, visual literacy, dealing with mis and dis-information, interacting with different media) • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply.	• Clearly setting or revising (already set) impactful strategic goals • Designing an execution plan • Developing regular action plans and monitoring progress and outcomes • Tying the goals to budget and/or securing funds to support policy implementation and operational expenditures • Coordinated/supported or facilitated implementing agencies/partners to support effective planning and performance management • Used or facilitated use of data systems and processes to track implementation, provide evidence to inform modifications and to benchmark against measures of progress and success • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply.	• Gave a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event • Planning to give a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event • Wrote and published a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity • Planning to write and publish a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity • Took part in discussions in meetings/roundtables or sessions, and/or provided an opinion/or triggered further discussion on bioeconomy, circular economy, sustainability and/or inclusivity • Planning to take part in discussions in meetings/roundtables or sessions, and/or provide an opinion/or trigger further discussion on bioeconomy, circular economy, sustainability and/or inclusivity • Shared ideas/suggestions or engaged in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues • Planning to share ideas/suggestions or engage in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project	

Question	Response Options
Questions specific to the Funding agency (local, regional, national, international)	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply.	• Followed a course/module/training on bioeconomy, circular economy, and/or sustainability • Planning to follow a course/module/training on bioeconomy, circular economy, and/or sustainability in the following year • Read an informative book/text/content on bioeconomy, circular economy, and/or sustainability • Planning to read an informative book/text/content on bioeconomy, circular economy, and/or sustainability in the following year • Followed a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability • Planning to follow a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability in the following year • Conducted research and read related literature/sources on bioeconomy, circular economy and/or sustainability to learn more on the topic • Planning to conduct research and read related literature/ sources on bioeconomy, circular economy and/or sustainability to learn more on the topic in the following year • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you placed special attention to the following topics or are you planning to place special attention in the next one year, to the following topics in the execution of your work (daily tasks, teaching, communication etc.).	• Paid special attention to inclusivity and/or gender equality • Planning to pay special attention to inclusivity and/or gender equality in the following year • Paid attention to marginalised groups • Planning to pay special attention to marginalised groups in the following year • Paid special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy • Planning to pay special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy, in the following year • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following in the scope of your work? Please choose all that apply.	• Set new targets/KPIs on bioeconomy/circular economy/sustainability etc. in school/course/module or programs • Planning to set new targets/KPIs on bioeconomy/circular economy/sustainability etc. in school/course/module or programs • Mobilised funds for new educational or training programs/courses/modules on bioeconomy/circular economy/sustainability etc. • Planning to mobilise funds for new educational or training programs/courses/modules on bioeconomy/circular economy/sustainability etc. • Mobilised funds for any initiative related to bioeconomy, circular economy or sustainability etc. • Planning to mobilise funds for any initiative related to bioeconomy, circular economy or sustainability etc. • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, do you believe you have shown improvement or you are likely	• Sustainability literacy and knowledge (sustainability issues, terminology/language, stakeholder needs etc. related to your work/profession)

Question	Response Options
to show improvement in the next one year, in any of the areas below? Please choose all that apply.	• Effective collaboration and communication (empathy, conflict management, reliability, storytelling) • Analytical thinking (creative problem-solving behaviour, prioritizing, making connections, data skills) • Forward-thinking (identifying opportunities for change, plan for long-term improvement) • Empowering leadership (having difficult conversations with colleagues, giving feedback, motivating others, delegating work) • Project management (planning, execution, resource management, risk management) • Taking ownership (taking initiative/direction, taking action when needed, resilience, realistic plans and goals) • IT skills for sustainability (data management, digital communication, job related software) • Diversity and inclusion (being aware of (unconscious) prejudices, having sincere/ open communication, inclusive decision-making) • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply.	• Gave a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event • Planning to give a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event • Wrote and published a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity • Planning to write and publish a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity • Took part in discussions in meetings/roundtables or sessions, and/or provided an opinion/or triggered further discussion on bioeconomy, circular economy, sustainability and/or inclusivity • Planning to take part in discussions in meetings/roundtables or sessions, and/or provided an opinion/or triggered further discussion on bioeconomy, circular economy, sustainability and/or inclusivity • Shared ideas/suggestions or engaged in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues • Planning to share ideas/suggestions or engaged in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues • Made plans about taking the necessary steps to inform my peers, colleagues or stakeholders I work with about bioeconomy, circular economy, sustainability and/or inclusivity • Planning to make plans about taking the necessary steps to inform my peers, colleagues or stakeholders I work with about bioeconomy, circular economy, sustainability and/or inclusivity • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Questions specific to the Civil society organization	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply.	• Followed a course/module/training on bioeconomy, circular economy, and/or sustainability • Planning to follow a course/module/training on bioeconomy, circular economy, and/or sustainability in the following year • Read an informative book/text/content on bioeconomy, circular economy, and/or sustainability • Planning to read an informative book/text/content on bioeconomy, circular economy, and/or sustainability in the following year

Question	Response Options
	- Followed a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability - Planning to follow a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability in the following year - Conducted research and read related literature/sources on bioeconomy, circular economy and/or sustainability to learn more on the topic - Planning to conduct research and read related literature/ sources on bioeconomy, circular economy and/or sustainability to learn more on the topic in the following year - None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project	
Since you have engaged with the BioGov.net Project, have you placed special attention to the following topics or are you planning to place special attention in the next one year, to the following topics in the execution of your work (daily tasks, teaching, communication etc.).	- Paid special attention to inclusivity and/or gender equality - Planning to pay special attention to inclusivity and/or gender equality in the following year - Paid attention to marginalised groups - Planning to pay special attention to marginalised groups in the following year - Paid special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy - Planning to pay special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy, in the following year - None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
- Since you have engaged with the BioGov.net Project, do you believe you have shown improvement or you are likely to show improvement in the next one year, in any of the areas below? Please choose all that apply.	- Sustainability literacy and knowledge (sustainability issues, terminology/language, stakeholder needs etc. related to your work/profession) - Effective collaboration and communication (empathy, conflict management, reliability, storytelling) - Analytical thinking (creative problem-solving behaviour, prioritizing, making connections, data skills) - Forward-thinking (identifying opportunities for change, plan for long-term improvement) - Empowering leadership (having difficult conversations with colleagues, giving feedback, motivating others, delegating work) - Project management (planning, execution, resource management, risk management) - Taking ownership (taking initiative/direction, taking action when needed, resilience, realistic plans and goals) - IT skills for sustainability (data management, digital communication, job related software) - Diversity and inclusion (being aware of (unconscious) prejudices, having sincere/ open communication, inclusive decision-making) - None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply.	- Gave a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event - Planning to give a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event - Wrote and published a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity - Planning to write and publish a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity

Question	Response Options
	• Took part in discussions in meetings/roundtables or sessions, and/or provided an opinion/or triggered further discussion on bioeconomy, circular economy, sustainability and/or inclusivity • Planning to take part in discussions in meetings/roundtables or sessions, and/or provide an opinion/or trigger further discussion on bioeconomy, circular economy, sustainability and/or inclusivity • Shared ideas/suggestions or engaged in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues • Planning to share ideas/suggestions or engaged in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues • Made plans about taking the necessary steps to inform my peers, colleagues or stakeholders I work with about bioeconomy, circular economy, sustainability and/or inclusivity • Planning to make plans about taking the necessary steps to inform my peers, colleagues or stakeholders I work with about bioeconomy, circular economy, sustainability and/or inclusivity • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Questions specific to the Organisation/project/initiative working on social inclusion	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply.	• Followed a course/module/training on bioeconomy, circular economy, and/or sustainability • Planning to follow a course/module/training on bioeconomy, circular economy, and/or sustainability in the following year • Read an informative book/text/content on bioeconomy, circular economy, and/or sustainability • Planning to read an informative book/text/content on bioeconomy, circular economy, and/or sustainability in the following year • Followed a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability • Planning to follow a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability in the following year • Conducted research and read related literature/sources on bioeconomy, circular economy and/or sustainability to learn more on the topic • Planning to conduct research and read related literature/ sources on bioeconomy, circular economy and/or sustainability to learn more on the topic in the following year • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you placed special attention to the following topics or are you planning to place special attention in the next one year, to the following topics in the execution of your work (daily tasks, teaching, communication etc.).	• Paid special attention to inclusivity and/or gender equality • Planning to pay special attention to inclusivity and/or gender equality in the following year • Paid attention to marginalised groups • Planning to pay special attention to marginalised groups in the following year • Paid special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy • Planning to pay special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy, in the following year • None of the above/Other

Question	Response Options
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, do you believe you have shown improvement or you are likely to show improvement in the next one year, in any of the areas below? Please choose all that apply.	• Sustainability literacy and knowledge (sustainability issues, terminology/language, stakeholder needs etc. related to your work/profession) • Effective collaboration and communication (empathy, conflict management, reliability, storytelling) • Analytical thinking (creative problem-solving behaviour, prioritizing, making connections, data skills) • Forward-thinking (identifying opportunities for change, plan for long-term improvement) • Empowering leadership (having difficult conversations with colleagues, giving feedback, motivating others, delegating work) • Project management (planning, execution, resource management, risk management) • Taking ownership (taking initiative/direction, taking action when needed, resilience, realistic plans and goals) • IT skills for sustainability (data management, digital communication, job related software) • Diversity and inclusion (being aware of (unconscious) prejudices, having sincere/ open communication, inclusive decision-making) • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply.	• Gave a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event • Planning to give a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event • Wrote and published a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity • Planning to write and publish a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity • Took part in discussions in meetings/roundtables or sessions, and/or provided an opinion/or triggered further discussion on bioeconomy, circular economy, sustainability and/or inclusivity • Planning to take part in discussions in meetings/roundtables or sessions, and/or provide an opinion/or trigger further discussion on bioeconomy, circular economy, sustainability and/or inclusivity • Shared ideas/suggestions or engaged in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues • Planning to share ideas/suggestions or engage in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues • Made plans about taking the necessary steps to inform my peers, colleagues or stakeholders I work with about bioeconomy, circular economy, sustainability and/or inclusivity • Planning to make plans about taking the necessary steps to inform my peers, colleagues or stakeholders I work with about bioeconomy, circular economy, sustainability and/or inclusivity • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	

Question	Response Options
Questions specific to the Art sector	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply.	• Followed a course/module/training on bioeconomy, circular economy, and/or sustainability • Planning to follow a course/module/training on bioeconomy, circular economy, and/or sustainability in the following year • Read an informative book/text/content on bioeconomy, circular economy, and/or sustainability • Planning to read an informative book/text/content on bioeconomy, circular economy, and/or sustainability in the following year • Followed a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability • Planning to follow a seminar/podcast/webinar (or similar) on bioeconomy, circular economy, and/or sustainability in the following year • Conducted research and read related literature/sources on bioeconomy, circular economy and/or sustainability to learn more on the topic • Planning to conduct research and read related literature/ sources on bioeconomy, circular economy and/or sustainability to learn more on the topic in the following year • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you placed special attention to the following topics or are you planning to place special attention in the next one year, to the following topics in the execution of your work (daily tasks, teaching, communication etc.).	• Paid special attention to inclusivity and/or gender equality • Planning to pay special attention to inclusivity and/or gender equality in the following year • Paid attention to marginalised groups • Planning to pay special attention to marginalised groups in the following year • Paid special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy • Planning to pay special attention to the use of arts, eco-design and/or culture in teaching or working with bioeconomy, in the following year • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, do you believe you have shown improvement or you are likely to show improvement in the next one year, in any of the areas below? Please choose all that apply.	• Sustainability literacy and knowledge (sustainability issues, terminology/language, stakeholder needs etc. related to your work/profession) • Effective collaboration and communication (empathy, conflict management, reliability, storytelling) • Analytical thinking (creative problem-solving behaviour, prioritizing, making connections, data skills) • Forward-thinking (identifying opportunities for change, plan for long-term improvement) • Empowering leadership (having difficult conversations with colleagues, giving feedback, motivating others, delegating work) • Project management (planning, execution, resource management, risk management) • Taking ownership (taking initiative/direction, taking action when needed, resilience, realistic plans and goals) • IT skills for sustainability (data management, digital communication, job related software) • Diversity and inclusion (being aware of (unconscious) prejudices, having sincere/ open communication, inclusive decision-making) • None of the above/Other

Question	Response Options
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	
Since you have engaged with the BioGov.net Project, have you done or are you planning to do in the next one year, any one or more of the following? Please choose all that apply.	• Gave a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event • Planning to give a presentation or a speech on bioeconomy, circular economy, sustainability and/or inclusivity in a relevant meeting/session/roundtable/panel event • Wrote and published a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity • Planning to write and publish a note, brief, informative piece, research etc. on bioeconomy, circular economy, sustainability and/or inclusivity • Took part in discussions in meetings/roundtables or sessions, and/or provided an opinion/or triggered further discussion on bioeconomy, circular economy, sustainability and/or inclusivity • Planning to take part in discussions in meetings/roundtables or sessions, and/or provide an opinion/or trigger further discussion on bioeconomy, circular economy, sustainability and/or inclusivity • Shared ideas/suggestions or engaged in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues • Planning to share ideas/suggestions or engage in discussions on bioeconomy, circular economy, sustainability and/or inclusivity with your peers/colleagues • Made plans about taking the necessary steps to inform my peers, colleagues or stakeholders I work with about bioeconomy, circular economy, sustainability and/or inclusivity • Planning to make plans about taking the necessary steps to inform my peers, colleagues or stakeholders I work with about bioeconomy, circular economy, sustainability and/or inclusivity • None of the above/Other
In connection to the answer you gave to the previous question, please estimate what percentage of this behaviour would you attribute to the BioGov.net Project.	

BioGov.net

Governance & Upskilling for a
Stronger Bioeconomy

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