



BIOVOICES

CONNECTING BIO-BASED FORCES
FOR A SUSTAINABLE WORLD

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CONNECTING BIO-BASED FORCES FOR A SUSTAINABLE WORLD



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BIOVOICES

CONNECTING BIO-BASED FORCES
FOR A SUSTAINABLE WORLD

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Report on European, National and Regional MML events

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INTRODUCTION

The bioeconomy is Europe's response to the key environmental, societal and economic challenges the world is facing today. The bioeconomy is focused on reducing the dependency on limited fossil-based resources and ensuring healthy and secure food production and supply. By promoting sustainable production of renewable resources from land, fisheries and aquaculture, and their conversion into bio-based products and bio-energy the bioeconomy will drive growth in new jobs and industries.

In brief, bioeconomy is all about the three Ps: People, Planet and Profit

However, bio-based products (BBPs) and services can only become economically viable when they include improved and marketable features, and guarantee a sustainable performance accepted by society. Studies show that many new products are still in development and traditional bio-based products do not market themselves as such. This must change. For that, society must be involved in the development and delivery of the bioeconomy.

The bioeconomy uptake depends on the active collaboration of a broad range of stakeholders, including industry players, public authorities, researchers and civil society (consumers/users).

This is where the BIOVOICES project is active through ensuring the engagement of all these relevant stakeholder groups through (1) a multi-stakeholder Platform (<https://www.biovoices-platform.eu/login>), involving a plurality of voices with different perspectives, knowledge, and experiences whilst also animating open dialogue, co-creation and mutual learning between them.

Specifically, the BIOVOICES' strategic objectives as defined in the DOA are to:

- Promote multi-actor dialogue and multi-stakeholder co-creation of research, innovation, development and political context in bio-based economy.
- Design and promote a Mobilisation and Mutual Learning (MML) platform (online and face-to-face), engaging different stakeholders at European, National and Local levels, including a plurality of perspectives, experiences, interests, aspirations and knowledge.
- Increase the quality, relevance, social acceptability and sustainability of research and innovation outcomes in the bio-based domain, thus minimizing the technology mismatches.
- Design and implement an action plan fostering the awareness of the wider public about the benefits and potential social, economic and environmental impact of the bioeconomy and widening the diffusion of BBPs, using the BIOVOICES multi-stakeholders' platform.

To achieve these strategic objectives, BIOVOICES worked to:

- Define a framework for MML (WP3), by reviewing barriers and opportunities for the development of bio-based value chains, identifying stakeholders and expected benefits from mutual learning and mapping bio-based products (applications) based on stakeholders' interests.
- Launch the BIOVOICES multi-stakeholder's community (WP4), supporting and enabling discussion, workshops, MML events (live and online), knowledge exchange and co-creation of knowledge and action plans.
- Create the BIOVOICES social platform and online mutual learning activities (WP5) to foster the BIOVOICES community activities and deliver related knowledge and contents to the different

stakeholders. Design the social media strategy, infrastructure, actions and tools to increase the impact of the BIOVOICES activities and outcomes.

- Improve framework conditions for new bio-based market opportunities (WP6) including action plans and processes, by involving the stakeholders within the bio-based value chain (policy makers, researchers, the business community and the civil society) in co-creation events, at European, National and Local/Regional levels.
- Transform the experience of the BIOVOICES community into Actionable Knowledge for the different stakeholders by publishing recommendations and policy briefs to address the challenges related to development and delivery of the bioeconomy (WP6).
- Ensure BIOVOICES outcomes will have an impact on the different stakeholders, through the early impact, dissemination, communication and exploitation strategy (WP7).

In order to reach these specific objectives, BIOVOICES is based on existing approaches that have been merged and taken into account in all project activities in order to utilise an innovative methodology.

- **Quadruple Helix Model:** Where policy makers, business, research and civil society work together to co-create the future and drive structural changes far beyond the scope of what any organisation or person could do alone. This model encompasses user-oriented innovation models to take full advantage of the cross-fertilisation of ideas, leading to experimentation and prototyping in a real-world setting. This model is based on the principles of integrated collaboration, co-created shared value, cultivated innovation ecosystems, unleashed exponential technologies, and extraordinarily rapid adoption.
- **Mobilisation and Mutual Learning Approach:** This approach ensures the engagement of all relevant actors and aims to tackle research and innovation related challenges by creating partnerships with a variety of perspectives, knowledge and experience. These activities aim to promote the mobilisation and collaboration among stakeholders representing different interests. The activities are not organised as a top-down process but require a mutual commitment from all those involved in them. MML therefore develops forms of dialogue and cooperation between several actors at different stages of the bio-based product value chain.
- **Participatory Design:** Participatory design is an approach where all stakeholders are involved in the design process. Traditional design projects typically include the paying client and professionals within similar and related industries. In participatory design, members of the wider community — from the users who are directly affected by the design, to the local business owners who may be peripheral to it — are also recognised as legitimate stakeholders with the ability to impact the project.
- **Multi-actor Approach¹:** The multi-actor approach aims at more demand-driven innovation through the involvement of various actors (end-users, associations, enterprises, etc.) throughout the project, from participation in the planning of work, the execution up until the dissemination of results. This should generate innovative solutions that are more likely to be applied thanks to cross-fertilisation of ideas between actors, co-creation and generation of co-ownership for eventual results. A multi-actor project proposal needs to demonstrate how the project proposal's objectives and planning are targeted to the needs, problems and opportunities of end-users, and its compatibility with existing research and best practices.

¹ https://ec.europa.eu/info/sites/info/files/coordinators_day_maa_workshop.pdf

These approaches have been used primarily in MMLs organised by BIOVOICES and reported on in this document.

1. EXECUTIVE SUMMARY

This deliverable (D6.2) presents an update on deliverable (D6.1) which was on the Preliminary Report on the European, National and Regional MML events carried out in this reporting period by BIOVOICES. It is thus the Final Report on the European, National and Regional MML events that were organized within the lifetime of the BIOVOICES project. This document therefore offers the ‘final insights’ collated from and based on Mobilisation and Mutual Learning approach applied in the MML events carried out until January 2021.

D6.2 has been structured to clearly outline the reach and impact arising out of the MML events that were implemented within the pendency of the BIOVOICES project and it is outlined as follows below:

- MML Events – Quantitative Review: what has been completed;
- MML events – the practical aspects: developing, managing, following-up (how to run an effective MML event according to the BIOVOICES experience):
 - o Introduction – background to BIOVOICES work on these events;
 - o Methodology – how BIOVOICES has reported and collected data on the MML events;
 - o Lessons learnt about running an effective MML event from each of the following levels of MML: European, National, Regional;
 - o Common lessons learnt including effective involvement of all stakeholders – what worked and what did not, what was the success factor, e.g. getting civil society to attend and contribute;
- MML impact – key recommendations garnered from our experience of executing MML events over the 36 month period of the Biovoices project;
 - o Methodology – how key recommendations were identified and collated;
 - o Key recommendations on how future European MML, National MML, Regional MML events should be carried out – highlighting our experiences, similarities and differences due to the nature of each event;
- Discussion Points
- Appendix: containing all the reports of each MML event carried out

In order to ease identification of MML events and their cross referencing, each individual MML event has been allocated a unique number in the appropriate sections below.

2. MML EVENTS: QUANTITATIVE REVIEW

Seventy-six MML events were organized during the lifetime of the BIOVOICES project. This chapter aims to provide the reader with a quantitative overview of these events. The scale of the event, the country where the event took place and the total number of events organised are presented in the chart 1 below, together with the name of the respective organisation that carried out the event. Suffice to note that D6.1 covered MML events organized from M1 to M18 (January 2018 to July 2019) and D6.2 is covering everything from M19 until now M37 (August 2019 to January 2021).

No table of figures entries found.	Organizing partner	Total
Regional (Local)		5
Spain	AseBio	1
Romania	FRONTIER	2
Italy	FVA	1
Estonia	Civitta	1
National		16
Romania	FRONTIER	1
Spain	AseBio	2
Italy	FVA	2
Italy	APRE	3
Germany	ICLEI	1
Estonia	Civitta	1
Greece	Q-Plan	4
Netherlands	WR	1
Italy	CNR	1
European		10
Finland	FVA	2
Italy	APRE	5
Germany	ICLEI	2
Spain	AseBio	1
Grand total		31

Table 1 - Number of events organized during the period from M19 to M37 (2019 - 2021)

Audience and stakeholder numbers are provided below. Altogether 2415 participants took part in the events, covering individual interests across research, industry, civil society, public sector/policy making, investments and also in other spheres (broken down in Table 2 below).

Audience (number by type of stakeholders)						Total Audience
Research	Industry	Civil Society	Public Sector	Others	Investors	
960	706	271	268	165	45	2415

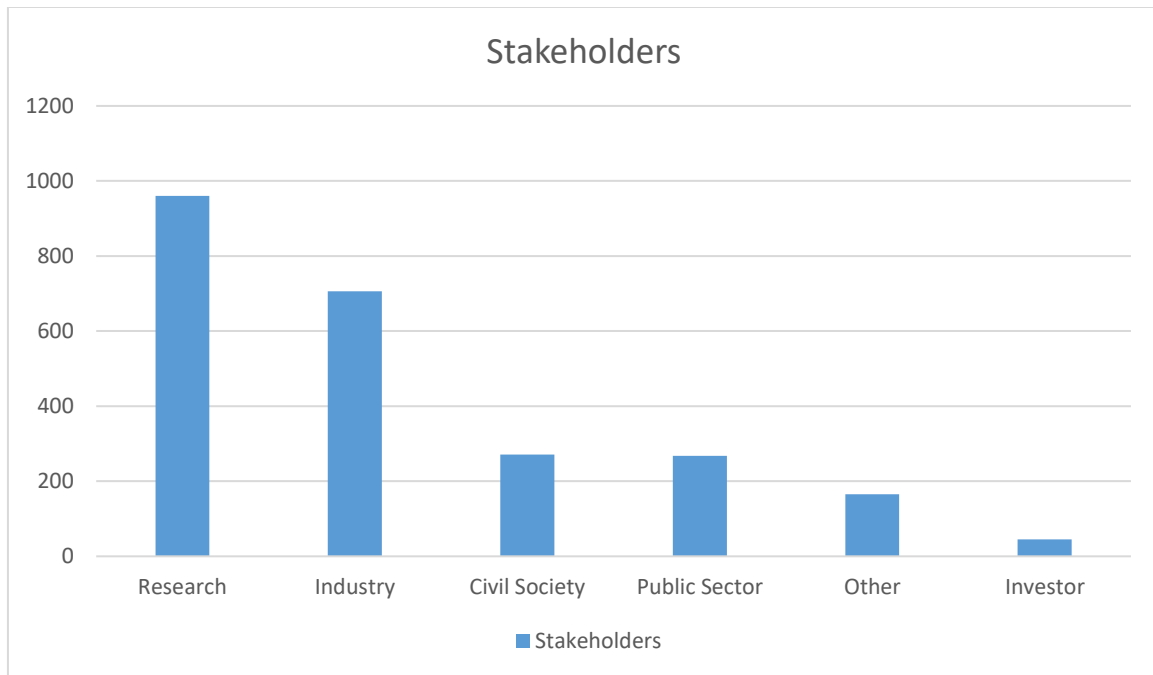


Table 2 - Audience numbers at events organized

A chart offering an overview of the application sectors and their representation at the events held is given below (Table 3). Agriculture, Farming, Business in Agriculture, Biofuels and Bioenergy sectors were represented at 3 MMLs (9.67%); Building and construction, Building and Insulation at 2 MMLs (6.45%); All the sectors, New products and Education were represented at 14 MMLs altogether (45.16%); Wool value chain at 2 MMLs (6.45%); Health at 1 MML (3.22%); Food & Packaging and Bioplastics at 4 MMLs (12.9%); Investors at 1 MML (3.22%); Waste at 2 MMLs (6.45%); Aquaculture at 1 MML (3.22%) and New Biobased Products at 1 MML (3.22%)

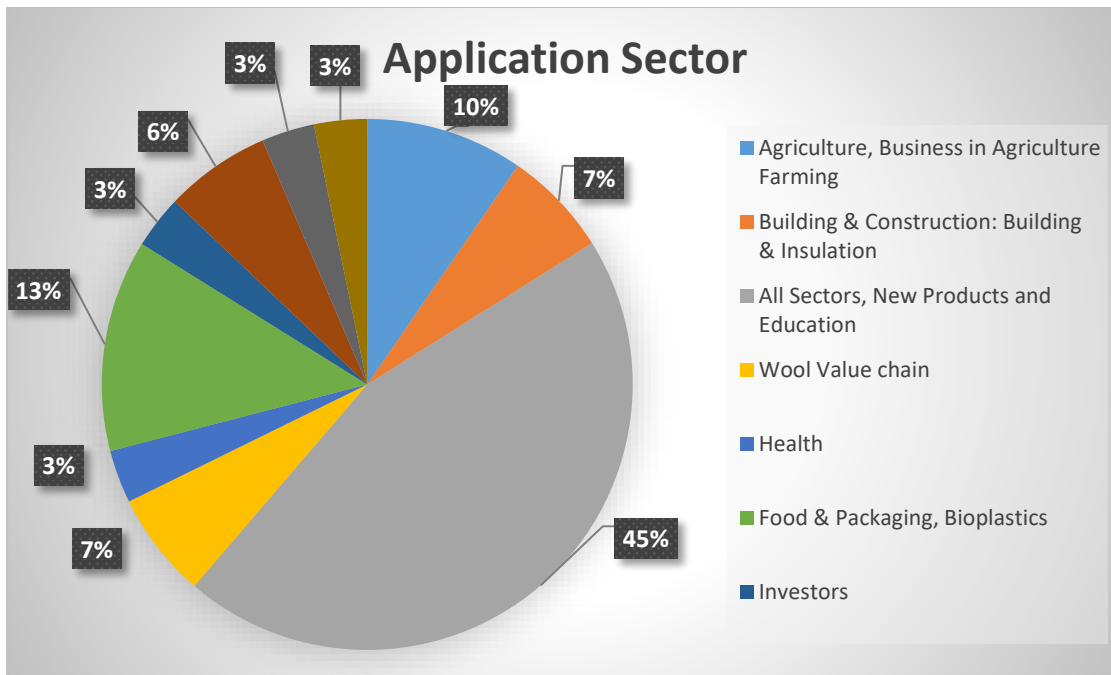


Table 3 - Application Sector

It should also be noted that out of the 31 events that were held during the period spanning M19 – M37, 19 of them were held online owing to the disruption occasioned by the COVID- 19 pandemic that made it impossible for physical meetings to happen.

3. MML EVENTS: THE PRACTICAL ASPECTS

3.1. INTRODUCTION

PEDAL was the leader of WP6 and oversaw the organisation of MML events delivered by all partners. Further BIOVOICES MML events were organised by the consortium between January 2019 and January 2021 bringing the total of all MML events held during the funded period to circa 76.

The MMLs were not an end in themselves but are a vital step in the creation of the final deliverables, which include actionable knowledge, insights and recommendations for each quadruple helix stakeholder group.

At the start of WP6, a detailed plan was presented to all partners showing what each partner needed to deliver. This harmonised event planning and reporting, supporting effective impact monitoring and assessment of the MML events held.

All partners received a practical guide, defining the actions required to enable WP6 responsible partners to:

- Keep track of the events;
- Assess, analyse and collate the results and insights of the organised events;
- Detect gaps and apply corrective measures, where necessary;

- Identify and capture actionable knowledge, insights and recommendations.

The objective was to provide clear guidelines for partners to engage in the planning and reporting of the MMLs and therefore contribute to the final outcomes of the project.

It goes without saying that due to restrictions imposed in response to the COVID-19 pandemic, many MML workshops planned for 2020 were transformed into online events, resulting in an increase in the numbers of participants from a wider range of geographical locations. This responsiveness to changing priorities in each of its partners' territories to maintain relevance has been a key aspect of the BIOVOICES project.

3.2. METHODOLOGY

3.2.1. Reporting on completed MML events from M19 to M37

The BIOVOICES Excel spreadsheet for event reporting had three separate worksheets which needed to be completed – Event Calendar, MML Synopsis, Event Reporting – for each event. Partners were asked to complete each section promptly and update the information as appropriate.²

The Event Calendar worksheet summarises data on each event. Because a high number of events were planned and organised, an overview of the timing, scale, content and the context of each planned event was vital.

Partners were requested to update the Event Calendar worksheet in the Excel spreadsheet as soon as preliminary information about the organised event became available. When further details and information were confirmed, partners updated them in the specific sheet.

In order to monitor and assess the progress and impact made by the BIOVOICES project, as well as to produce actionable recommendations, appropriate data and information about completed MML events had to be finalised in a consistent and structured manner.

There were four elements required to complete the reporting of MML events:

- MML Synopsis – updated facts and figures about the event;
- Event Report – to support initial dissemination and communication;
- The MML Report – based on the blank template;
- The Publishable overview of results – a factual and visual document for the platform and dissemination.

The blank template used for each individual MML event by all the partners was available on the BIOVOICES G-Drive. This template provided partners with the structure designed to produce a comprehensive and meaningful account of the purpose, management and outputs from each MML. Due to the various formats in which the different MMLs were arranged, it was not expected that every

² Note that: D3.4 provides a detailed guide on how to organise the MML workshops.

MML event would provide information for every section. Partners were expected to complete as many sections appropriate for each of their events.

Project partners were asked to use the following tools and techniques at the MML events to facilitate the preparation of a useful and comprehensive MML Report:

- Feedback questionnaires – to be circulated for completion during and at the end of each meeting and after the event (via email as a follow up) if appropriate. The questionnaire is available on the BIOVOICES G-Drive.
- Qualitative interview/s – each MML event should end with the section entitled: “What follow up activities are you considering taking after this event”? If this session does not deliver useful content and the actionable knowledge was not clearly identified, then ‘the most likely’ participants should be identified and ‘interviewed’ either at the event or after the event by phone or another method of direct communication (email/online survey). The basis for these interviews are the questions presented in the Feedback questionnaire (link as above).
- Evaluation Report – a summary of the completed Feedback Questionnaires and the Interviews conducted. It provides an overview of the initial success of the MML in terms of numbers, satisfaction of attendees with the event and lessons learnt to pass on to partners.
- Impact Report – is a summary of what information has been captured from discussions/interactions at the event and on the content of feedback forms and interviews. The impact report focuses on what participants will do next in terms of connections, work/research and what BIOVOICES partners would do next in terms of the follow-up with certain participants. Importantly, the report highlighted recommendations that were to be considered for inclusion in WP6 ‘Policy Briefs’ (best practice) documents for the bio-based sector as a whole, related to the relevant phases of product development and delivery sectors and for each key stakeholder group.

Once the MML Report was completed to satisfaction of the partners and WP6 lead, it was uploaded to the project G-Drive.

3.2.2. Publishable overview of results

In addition to compiling the MML Report, a publishable overview of results was created, setting out the actionable knowledge derived from the MML events for immediate upload to the web platform and for dissemination and communication purposes.

It was the responsibility of all partners to create a visually attractive one to two-page document, including photos that were meaningful and help to tell the story of each MML. This document was used by partners responsible for online and social media actions.

3.3. LESSONS LEARNT

The Thirty - one MML events organised in 18 months have provided a substantial base for collecting lessons learnt in the process of organizing and executing the different MML events. Based on some of the insights from and key lessons learnt from the MML workshops conducted, an online tool has been developed (by CNR and ICLEI) in order to help organizations design an MML or co-creative event based

on given framework conditions (objectives, group size, group composition etc.). The tool facilitates the selection of an adequate MML format as well as exercise, catering to the objectives of the event. It also contains basic information as well as an agenda function and checklists. The tool is currently being tested and validated by consortium but will be up and running by the end of the project.

These lessons were therefore used to inform the better organization of future events by the project partners that had upcoming events. We therefore share some of the lessons learnt during the project, grouped below around specific topics and areas:

Collaboration and synergies with projects and stakeholders

- Co-organize events with local authorities to ensure their active involvement and commitment in involving all the relevant regional stakeholders.
- Invite experts to share their good practices linked to the topics of discussion.
- Organize parallel sessions to explore different topics, with selected experts participating to the specific sessions.
- Organize the MML events as a satellite of bigger events to ensure good attendance and representation of all relevant stakeholder groups.
- Use good practices and real-life examples to ensure the success of the event and of the interaction among the participants.
- Organize MML events in collaboration with other events to increase the possibility of attracting more people and to attract a greater audience from different parts of Europe.

Heterogeneity of viewpoints

- Ensure the presence of at least two different stakeholder groups with different points of view
- Invite more representatives from civil society, to encourage their participation.
- Invite different experts to roundtable events to capture the variety of insights, inspirations and experiences of the stakeholders.

Relevant platforms for organizing MMLs

- Rethink whether fairs with a lot of parallel activities going on is the right platform at which to organise an MML events, as the attendees tend to visit a lot of activities and cannot spend enough time at one “station”.
- With the disruption of occasioned by COVID-19 pandemic, online platforms such as Zoom, Wemeet and Microsoft Teams were commonly used to organise MML events where it was not possible to hold physical meetings.

Size and relevance of the audience

- Having a small group of maximum 20 attendees provides an opportunity to keep all attendees interested and focused throughout the whole event.
- Organization of groups of 8/10 people maximum provides the possibility to interact with all participants to stimulate discussions and gather interesting points of view.
- Be realistic about which representatives of the 4-helix might attend an MML event as getting all four groups together is hard to realise.

- It was understood that there is a need to invite more people to avoid the problem of “no shows”.
- Politicians and public administrators need to be more involved.
- Inviting a diverse group of panelists to the roundtable helps to reflect the voices of the actors in the whole value chain, from research to the end users. Thanks to this approach, we saw our roundtables take into account the different perspectives which in turn resulted in more fruitful discussions.

Visual aids

- Using Mentimeter made a huge difference to maintain the interest of attendees and also supports the discussion.
- Using Slido for MML events also helped to ensure the interaction between the presenters and audience.
- The use of live connections (such as Cisco) enabled distant stakeholders to participate in the events.
- Recording presentations and interventions is useful both for the development of reports and as training material to be disseminated. Keeping these videos and disseminating them on platforms such as YouTube channels keeps the content available for longer periods and also ensures that a wider audience in greater numbers is reached.
- Adding interactive games during the events helps keep the participants actively engaged and attentive in throughout the whole MML event.

Messages to be communicated to drive adoption of BBPs

- Emphasise BBP's place in helping the environment, reducing pollution and supporting personal/family health.

Solutions needed for the existing challenges

- Poor recognition of BBPs already on the market – sustainable sourcing and processing need to be emphasized.
- Lack of credibility and preconceptions about the efficiency of BBPs.
- Availability of complete value chain information on BBPs available on the market; there is more willingness by consumers to buy and use BBPs if their curiosity is stimulated and the production process is transparent and traceable.

Tool supporting the flow of MML events

- The interactive roundtable format used for a number of our online MML events worked very well and should be replicated. The format was as follows: A first session to set the scene and provide the context: a few speakers allowed to talk for 5-7 minutes (preferably with no slides) to introduce the topic. It allows people to better understand the main issues and to elaborate their thoughts for the following interactive discussion. Short speeches guarantee that people maintain their attention and focus on the event; A roundtable session with open questions to the public: speakers are requested to answer a common question in 2-3 minutes (this provides a “rhythm” to the event that helps participants to maintain their level of attention).

- The use of Mentimeter as part of the introductory session in order to get know attendees better supports the dynamics of the event.
- The use of analysis of Mentimeter responses to encourages questions during the other sections of the event.
- Mentimeter is particularly useful with large numbers of attendees at MML events.
- Using Mentimeter or other interactive tools increases the quality of online meetings, encouraging the audience to take a more active role.
- By using Mentimeter, participants can react and integrate speakers' opinions and at the same time, roundtable speakers can comment about the most interesting inputs.

Organisational and technical challenges

- If the MML event is organised as part of an umbrella event, there should be clear agreement with the main facilitator about the exposure and timing of the MML event in the programme and from the platform.
- It is quite challenging to attract many attendees when the line-up of experts participating in the round table is small and not very diverse.
- There were some technical connection challenges despite earlier tests and checks.
- Organizing events as part of a bigger conference can affect the participant turnout as if the congress had a substantial entry fee people were not likely to attend the congress only to participate in the MML event.
- It is not always easy to follow-up the long-term collaboration among stakeholders.
- In the future, the organisation of MML events in online conferences with attendance fees should be avoided, as participation is not encouraged.

Organisational and technical support

In some contexts, language is a crucial factor for how many people will attend the MML.

MML content

- If there is a call by participants for a more in-depth discussion on the relevant topics, this requires more in-depth preparation, including a pre-assessment of participants' background, knowledge and interests in order to ensure the right people are discussing the right topics (this approach should be further tested).
- Restructuring discussions to focus directly on challenges, opportunities and success stories works well and leads to a wide-ranging discussion.
- MML events need to be tailored specifically to the reality of the situation in the respective country/region as far as bioeconomy related issues are concerned.
- It is useful to have a single question around which all discussions are focused.
- There is evident confusion regarding definitions of the bioeconomy and related terms; substantial efforts should be made to increase awareness related to bioeconomy terminology.
- Addressing specific challenges that a local economy faces, facilitates the success of future local and regional MMLs.
- Defining the discussion topics and MML focus more tightly can achieve more specific answers to specific challenges

4. MML IMPACT: KEY INSIGHTS/ RECOMMENDATIONS

This chapter presents an impact report, made up of key recommendations gathered from the various BIOVOICES MMLs held regarding the market progress of BBPs and the wider bioeconomy/circular economy. Additionally, top-level points have been identified from MMLs and these will also feature in greater detail in the BIOVOICES Policy Briefs and Action Plan (D6.3).

These key insights and recommendations are laid out in a manner addressing one for each of the four key stakeholder groups (Policy Makers, Research, Business, Civil Society), challenge addressed and also reflecting the key insights/ recommendations as built upon the interaction between the different stakeholders who attended our MML events.

Stakeholder Group	Challenges	Key Recommendations	Insights
Business	A2, A3, B2, B3, C3, D1, D2, D3, E1, E2	<ul style="list-style-type: none"> Establish a common and <u>Honest Language</u> to describe bio-based products and processes to avoid 'greenwashing' and confusion in order to nurture consumer trust. Take responsibility for clarity around <u>End-of-Life outcomes</u> for bio-based products 	<ul style="list-style-type: none"> Cooperate with all relevant stakeholders to develop awareness and active knowledge of standard bio-economy terminology to increase dialogue to communicate the positive impact BBP can have on the environment in terms of functionality compared to traditional products. Avoid confusing definitions of the bio-economy and related terms such as sustainability Be transparent in marketing benefits of bio-based products (BBP) by taking into account possible negative issues, for example rebound effect. Do not promote products where the waste infrastructure is not in place to deal with them (e.g industrial composting) Address citizen concerns about the misleading use of terms by industry, such as biodegradable and compostable. Make clear the difference between home compostable and industrial compostable products Understand that citizens are more interested in end-of-life solutions

- Use their own international, national, regional/local connections to increase Cross-Sectoral Cooperation to drive the development of the circular bio-based economy.
- Develop Robust, Realistic & Flexible Business Plans for bio-based products to include all appropriate data to attract longer term investor funding.
 - for plastics than in bio-based inputs.
 - Comply with Extended Producer Responsibility legislation with regards to packaging.
 - Facilitate the collaboration between sectors and different value chains that supports multi-level cooperation and creation of multi-stakeholder networks.
 - Start-ups must cooperate with brand owners to promote unique selling points (USP) of bio-based products to ease scale-up process.
 - Building companies and retail/brand owners must promote opportunities for using bio-based products in construction.
 - Boost industry engagement with the education sector to ensure there is an appropriately skilled workforce to drive the bio-based sector.
 - Promote culture change to move away from 'get rich quick' mentality.
 - Focus on circularity aspects when creating a business plan and value proposition.
 - Develop holistic thinking about the feasibility of the product relating to the three pillars of people, planet, and profit.
 - Provide benchmarks to assess technical and cost performance of bio-based products early on in the planning process.
 - Collaborate with the research community to ensure that the full value of bio-based research is fed into market development.
 - Business plans must be scalable and ready to be transferred and adapted to different contexts, evolution scenarios and local resources.
 - Collaborate and innovate to create, capture, and deliver value to improve resource efficiency by



- Ensure the Stability, Consistency, Quality and Homogeneity of Feedstock Supplies to meet market needs of your products by promoting territorial cooperation.
 - Seek out appropriate organisations and links (e.g. trade organisations) to actively input into and Support the Development of Local/Regional plans for system improvement within the circular bio-based economy.
- extending the lifespan of products to achieve environmental, social, and economic benefits.
 - Funders including banks and venture capitalists must become less risk averse when assessing applications from bio-based businesses at scale-up phase.
 - Collaborate with other stakeholders to develop efficient platforms for specific biomass availability where quality and homogeneity can be standardized for effective market use.
 - In many bio-based applications the quality and consistency of the feedstock must be guaranteed in order to be competitive with fossil-based equivalents.
 - Integrate feedstock providers into the value chain for bio-based products.
 - Implement training and practical guidance by industry for feedstock providers (primary producers) to improve awareness and to better exploit bioeconomy-related opportunities.
 - Define linking strategies for regions producing similar raw materials.
 - Intervene with incentives and forward planning to overcome issues related to seasonality of feedstock production.
 - Integrate processes for full biomass conversion into diverse bio-based products.
 - Business has an opportunity to input into local/regional action plans where needs and are identified and resources mapped.
 - Adapt and link new value chains and business models to regional development strategies.
 - Collaborate to adapt global ideas and processes to complex localities, unique cultures and societies.



- Must work with other key stakeholder groups to develop common standards, labels and specifications to build trust and confidence in the bio-based market.
 - Challenge Policy Makers about Price Parity of bio-based and fossil-based products to push for regulation and incentives for bio-based start-ups.
- Producers require financial and legal support but often the creation of regional clusters and alliances can have more lasting benefits.
 - Support primary producers, SMEs, entrepreneurs and employees with new skills to better take advantage of bioeconomy-related opportunities.
 - Collaborate to define and implement common standards, labels and specifications.
 - Simplification of the large number of labels and certifications is urgently required.
 - Work with policy makers to ensure standardisation by better regulation throughout the demand chain (consumers, B2B, procurers) including end-of-life management.
 - Address difficulties of access to labelling and certification schemes by SME and start-ups.
 - The CO₂ footprint of a new bio-based product and/or of the inputs for the bio-based product should form part of the criteria to be eligible for financing.
 - Highlight externalities such as social impact (health), environmental impact to create bio-based supportive legislation (public procurement).
 - Create connections between procurement and development strategies to provide a clear framework/of how bio-based procurement is linked to processes such as Agenda 2030 and Sustainable Development Goals.
 - Pursue change in regulations to facilitate the re-use of waste products
 - Seek flexible regulations for innovative bio-based products.
 - Push for subsidies for bio-based start-ups and scale-ups and to



- Influence the development and implementation of a straightforward and easy to understand Waste Management and Waste Recovery System at national, local and individual business level.
 - Engage with key stakeholders to implement strong local/regional networks for the circular bioeconomy.
 - Leading to the development of; An Accessible Platform to enable stakeholders to identify where bio-based products and materials can be located in each local area.
- lower the purchase cost to citizens of bio-based products.
 - Simplify and accelerate licensing procedures to support bio-based start-ups where a big investment in technology and personnel is required.
 - There is currently a lack of good waste management systems at all levels. A simplified system is necessary for increased communication to all stakeholders.
 - There are still not enough solutions for recycling and waste recovery in the majority of countries.
 - Investment in the recycling industry is now essential to allow the industry to move forward to deal with novel bio-based materials at end-of-life.
 - Promote and improve cascading use of feedstocks within waste system to maximize the use of resources and reduce waste.
 - It is the responsibility of producer to create more homogeneous streams for waste handlers
 - Simplify the system and provide clear information regarding the bio-plastics sector: find and collect mono streams of bio-PLA packaging at specific points or events.
 - Support and promote the idea of local circular bioeconomy managers to drive the transition towards more bio-based and circular cities and regions.
 - Promote information sharing and raise awareness about the business opportunities within the local bioeconomy to help adapt local society mindset, in particular primary producers.
 - Identify gaps in knowledge and missing skills within agricultural communities related to business opportunities within the circular bio-based economy.



			<ul style="list-style-type: none"> - Map regional employment opportunities in bio-based sectors and make information accessible. - Networks of providers can assist with local development, valorisation of local resources and improve the lobby to central and regional government. - Create specific places for the purchase of bio-based products by developing a catalogue of all bio-producers and bio-products of the local/regional area. - Create a marketplace for feedstocks enabling easy access to bio-based materials. - Facilitate the cascading use of feedstocks by connecting the value chains and facilitating cross connections. - Create specific places for the purchase of bio-based products by developing a catalogue of all bio-producers and bio-products of the local/regional area. - Create a marketplace for feedstocks enabling easy access to bio-based materials. - Facilitate the cascading use of feedstocks by connecting the value chains and facilitating cross connections.
<p>Civil Society</p>	<p>A1, A2, A3, B2, B3, C2 C3, E1 and E2</p>	<ul style="list-style-type: none"> • Support the development of a <u>Common Language</u> with an agreed terminology accessible to all stakeholders, to drive useful dialogue about the circular bio-based economy and specific bio-based sectors. 	<ul style="list-style-type: none"> - Define a common goal, all actors involved must be clear about what it is they want to achieve so that they can work together for long-term change. - Collaborate to develop a Common Language that can be easily understood by all - the language used to describe the bioeconomy is currently too complex and inconsistent - stakeholders using a standard terminology. - Drive understanding of exactly what the bioeconomy is and what the benefits to society are, or it will continue to be a challenge to

- Support the development of a simple, clear and consistent Labelling Standard at EU level for bio-based products to help establish understanding and drive consumer trust.

develop and market bio-based products.

- Promote awareness and active knowledge of standard bioeconomy terminology to increase dialogue between all stakeholders to communicate the positive impact bio-based products can have on the environment.
- Engage with start-ups to develop a coherent story about innovative bio-based products that can be explained to citizens.
- Involve citizens in the development of a simple, functional labelling standard.
- Obtain citizen trust through involving them in the development of clear, consistent labelling and standards achieved with the involvement of policy makers supporting bio-based products at national, regional and municipal level.
- Respond to initiatives from other stakeholders relating to the development of labelling standards.
- Engage with the debate on transparent and traceable life cycle assessment (LCA) data that can be transferred to a labelling system. Complete value chain information required for bio-based products.
- Understand that citizens are more interested in end-of-life solutions for plastics than in bio-based inputs.
- Work with regional producers of bio-based products to give consumers a quality guarantee that goes hand in hand with the good reputation of the brand and the region.
- Cooperate with all relevant stakeholders to develop awareness and active knowledge of standard circular bio-based economy

- Work towards the elimination of 'Greenwashing' as this results in lower consumer confidence in bio-based products and their producers.
 - Set the 'Bioeconomy Story' into the Circular Bio-based Economy context to drive further understanding and adoption.
- terminology to increase dialogue to communicate the positive impact BBP can have on the environment in terms of functionality compared to traditional products
 - Drive informed debate using honest and transparent information which is increasingly required as consumers become more knowledgeable and enquiring.
 - Respond to requests from policy makers and industry to provide accurate and actionable knowledge and insights relevant to members' interests in furthering the uptake of bio-based products.
 - Challenge industry to provide the information that citizens require to build trust in bio-based products and to address preconceptions relating to product efficiency, durability and end-of-life issues.
 - Adopt the "circular concept" to facilitate promotion of the bio-based sector to the general public.
 - Highlight the social, economic and environmental benefits of the circular bio-based economy.
 - Collaborate with stakeholders to ensure that the 'Bioeconomy Story' being shared is consistent and set into the relevant global, national, or regional context.
 - Address that fact that the bioeconomy is still a 'niche' sector and will continue to have limited impact unless joined up with and communicated within circular economy approaches.
 - Develop a specialist network to tell **one main story** to achieve wider acceptance of the bioeconomy, bio-based sectors and bio-based products by governments and society in general.
 - Provide innovative and up to date information to secure participative and proactive citizen involvement

- Promote implementation of an Education Curriculum to increase knowledge and awareness of sustainability issues and the bio-based circular economy, aimed at adults and all student levels.

- Citizens are in general Receptive to the Purchase of Bio-based Products, a positive backdrop and an opportunity for stakeholders to work with.

to promote trust, conscious consumption and environmental sustainability.

- Contribute to development of National Curricula at school level to raise awareness of the benefits of a circular bio-based economy and the link to global sustainability.
- Collaborate with the education community and the regions to provide educational paths for vocational training and life-long learning as citizen awareness and understanding are the essential elements to focus on to drive the change.
- Ensure the younger generation are involved in the debate as young people are currently very receptive to the development of new lifestyle skills relating to reducing the effects of climate change.
- Promote the opportunity for careers and academic study related to the circular bio-based economy.
- Embrace the opportunity that most people, regardless of age, are favourable towards the purchase of bio-based products and believe that it is necessary that more of these reach the market.
- Promote conscious consumption, environmental sustainability and ensure the participative and proactive involvement of citizens.
- Focus communication about bio-based products taking into account age, education level to target message delivery.
- Pursue public funding at European and national level to encourage public engagement.
- Utilise social media, television and radio as highlighted by citizens as the most appropriate methods to convey the benefits of bio-based products to the general public.

- Continuously promote and Communicate the Unique Selling Points of bio-based products, their benefits and relevance to everyday life.

- Establish the appetite for the Implementation of a Carbon Tax on fossil-

- Maximise involvement with citizen-science projects and living labs which are an opportunity to involve citizens in design and research questions and the physical testing of bio-based innovations.
- Highlight and promote to citizens public entities implementing Green Public Procurement as single “champions” (a business or public entity using green procurement on a wide scale).
- Enhance citizen awareness of the positive impact that bio-based products can have at a social, environmental and economic level, to encourage consumers to change their purchase habits.
- Drive behavioural change by continually promoting USP, which are not always self-evident, appropriately and in understandable formats to individual generations of citizens.
- Develop attractive visual campaigns using innovative technology to raise awareness, in particular to younger generations, of how bio-based products can be incorporated into daily lives.
- Harness the strong motivational power of physical examples and case studies of bio-based products by promoting and exhibiting in public spaces.
- Ask Consumers to identify initiatives, for example tax benefits that would increase their confidence in and ability to purchase bio-based products.
- Develop dialogue with citizens to debate the issue of price parity of bio-based products with their fossil equivalent – ‘Why are the fossil-based products so cheap?’
- Challenge policy makers about price parity to introduce initiatives

		<p>based products to make bio-based materials more affordable</p> <ul style="list-style-type: none"> • Enable and encourage the <u>Participation of Citizen Groups</u> particularly in the development of regional and local circular bio-based economy policies 	<p>that result in economic benefits for citizens.</p> <ul style="list-style-type: none"> - Provide continuity of the message during policy regime change to avoid hinderance of the development of bio-based sectors. - Address societal and citizen concerns through the influencing of policy and industrial agendas. - Create a new participative governance by involving citizens in public consultations about the circular bio-based economy to develop a set of ideas and measures which can be included in public policies. - Civil Society organisations must work with all stakeholders to identify the needs of the citizen, businesses and the territory in order to facilitate multi-stakeholder networks. - Promote the bioeconomy in a regional context to encourage citizen involvement in the revitalisation of the local economy by enhancement of social enterprises and social innovation action plans. - Communicate to society that the sectors working within the circular bio-based economy can create opportunities to boost national and regional employment. - Develop online platforms where citizens can access local bio-based products.
<p>Policy</p>	<p>A2, B2, B3, C2, C3, D1 D3, E1, E2</p>	<ul style="list-style-type: none"> • Governments at all levels must work <u>Towards Vertical Integration (multi-level governance)</u> to boost engagement between European, national and regional/local policies, initiatives, approaches and methodologies. 	<ul style="list-style-type: none"> - Enhance integration and synergy exploitation among administration (regional/local/national) relating to the design and implementation of policies (rural, industrial, tourism, and culture) and action plans for regional development. - Avoid disconnect between European, national and regional/local policies, initiatives, approaches and methodologies by

- increasing inter-governmental coordination and collaboration on the circular bio-based economy.
 - Integrated strategies and action plans must involve stakeholders from all domains including, primary production, port management, tourism, investors, food and feed industries.
 - Identify and address contradictory strategies that confuse stakeholders such as Common Agricultural Policy (CAP), tourism, rural and coastal development.
 - Communicate best practice and highlight excellence.
 - Develop clusters as a strategic component of industrial policies to support synergies and innovation in the circular bio-based economy.
 - Address gaps between governmental strategy and staff capacity and competence on the topics, in particular at local level.
 - National governments must establish the framework conditions necessary for bio-based innovations to thrive. Including research and development that is part of a wider sustainability governance framework, including links to climate change mitigation, circular bio-based economy and biodiversity.
 - Address the disconnect between departments' strategies and operations (e.g. procurement and sustainable development strategies), which deepen the fragmentation of silos in administrations and leads to less effective and efficient implementation of bioeconomy interventions at all levels.
 - Install a local bioeconomy manager (BEM) within city/regional administrations to drive the
- Governments at all levels must Promote Horizontal Integration, both administrative and organisational for efficient implementation of bioeconomy interventions at all levels to maximise knowledge exchange related to priority policy areas.

- Establish Continuity in Policy Priority to provide ongoing backing for policies that support the circular bio-based economy, irrespective of regime change at any level.
- Government at EU level needs to address market disparity by applying Regulatory and Demand-based Interventions to promote the bio-based sector
 - transition towards more bio-based and circular economies.
 - Increase participation of government administrations in promoting the bioeconomy through education and being a point of reference for the use of bio-products.
 - Consider adopting a Wellbeing of Future Generations (Wales) Act such as implemented in Wales (2015).
 - Provide a clear framework linking procurement to strategic initiatives such as Agenda 2030 and Sustainable Development Goals (SDG) and how it will be supported at local/regional and national levels.
 - Promote the standardisation of policies amongst administrations and ensure that changes of government do not hinder the implementation of a circular bio-based bioeconomy.
 - Government Policy requires flexibility to respond to innovation and data whilst maintaining primary focus.
 - Drive the formation of a defined Bioeconomy/Circular Economy Department involving members from relevant government departments and appoint a minister as a 'champion'.
 - Create advisory boards where all stakeholders are involved to elaborate and support a strategy for the circular bio-based economy within regions.
 - Develop legislation to support the bio-based sector to develop and sustain markets. Producers of BBP indicate that a 'soft' approach (education, incentives) seems to be placed well above 'hard' approach (bans, sanctions).
 - Develop specific regulation for circular bio-based economy to avoid

- Government at EU and national level must work together with other stakeholder groups to develop Common Standards, Labels and Specifications to build trust and confidence in the bio-based market.
- hurdles and bottlenecks created by the application of regulations developed for other domains which have different goals and objectives.
 - Explore a standard EU regulation for 'waste-into-best' concept.
 - Develop and implement framework conditions to allow greater leeway for institutions pioneering innovative approaches to procurement regulations and processes.
 - Lead by example, consider introduction of regulation to increase innovative public purchase/procurement efforts to deliver wider use of bio-based products.
 - Governments should take an active role by using bio-based building and construction materials in their existing and future buildings, and by regulating to make non bio-based materials less attractive.
 - Provide funding to develop clusters as a strategic component of industrial policy to support synergies and innovation.
 - Regulate to reduce market domination by multi-national companies in key sectors.
 - Investigated the option of a global unit of sustainability as a basis to achieve this.
 - Legislate for the implementation of standards and clear labelling to increase trust and to support bio-based sector at regional and municipal level (multi-level governance)
 - Generate a unique European label providing the following information: percentage bio-based component, provenance/origin, environmental impact, product properties, ingredients, production process, end-of life options.

- Government at all levels must regulate to ensure an Effective Waste Management and Waste Recovery System to generate consistent feedstock supply at national, local/regional levels.
- Government at all levels must Identify and Communicate with Appropriate Organisations to ensure two-way flow of information on current developments in the circular bio-based economy.
- Government in collaboration with other stakeholders can
 - Utilise life cycle assessments (LCA) - to a standard methodology- as part of the development of label specifications and content to support formulation of EU standards.
 - Create opportunities for multi-stakeholders to develop meaningful effective standards and labelling accepted by all, complying with existing regulation.
 - Government must ensure that labels allow consumers to differentiate between BB and non-bio-based products.
 - Development of a bio-certificate should be considered as a 'brand 'to increase trust and understanding.
 - Support development of the labelling of regional products to drive recognition, regulation and consumption.
 - Re-evaluate Current EU waste regulations that prevent the use of waste as a feedstock for other products or restrict the moving of waste across borders.
 - Support primary producers to create homogenous waste streams for secondary use.
 - Seek to alleviate stakeholder conflict arising from competing uses of bio-based waste streams.
 - Develop appropriate standards and tools to promote resource efficiency
 - Simplify the system and provide clear guidance regarding complex areas such as biodegradable or compostable products backed up by regulation.
 - Increase the involvement of local authorities in the separate collection of municipal waste in order to boost local/regional development.
 - Address the complexity and scope of the circular bio-based economy

drive Understanding and Adoption of Bio-based Sectors by establishing the 'Bioeconomy Story' within the context of the Circular Bio-based Economy.

- Engagement by governments at all levels in Participatory Processes with the education sector to develop training and capacity building to raise awareness of bio-based sectors.

- Enable and encourage the Participation of Citizen Groups particularly in the development of regional and local circular bio-based economy policies.

to facilitate the definition of regulations and standards that are currently difficult to apply.

- Increase awareness and communication at all government levels relating to current developments in circular bio-based economy that could be implemented.
- Communicate with stakeholders to obtain a connected and coherent "narrative" on the circular bio-based economy including BBP success stories in order to develop political and market potential.
- Establish institutionalised exchanges of knowledge between purchasing departments and expert departments on technical specifications, sustainability criteria etc. via frequent round table meetings.
- Communicate the bioeconomy as part of the circular economy more consistently across all government levels, otherwise its impact will remain limited.
- Appoint a minister as 'Champion' for the circular bio-based economy
- Create connections between procurement and development strategies to provide a clear framework on how procurement, for example, is linked to processes such as Agenda 2030 and Sustainable Development Goals (SDG).
- Improve the dissemination of information regarding the opportunities and challenges of the circular bio-based economy among all stakeholders at national, regional and local level.
- Increase government participation in the promotion of the bio-based circular economy through education at all levels.

- Develop effective dialogue between government actors and bio-based industries to promote deployment of bioeconomic principles in the governmental domain.
 - Assess the impact of new and existing policies on the introduction and ongoing use of bio-based materials and initiatives vs fossil fuel equivalents
- Develop school level awareness of the benefits and opportunities of a circular bio-based economy via National Curriculum. Young people are currently receptive to new lifestyle skills relating to the challenge of climate change.
 - Address gaps between governmental strategy and staff capacity and competence on the topic of circular bio-based economy using continuing professional development (CPD).
 - Improve dissemination of best practice and policy innovation to the education sector.
 - Promote the creation of a new participative governance by initiating dialogue with citizens by creating advisory boards.
 - Engage multi-stakeholder groups to bring the political decision maker closer to the needs of the citizen, businesses and the respective local territory.
 - Encourage citizen contribution to the development of effective territorial policies to result in concrete legislative proposals.
 - Create regulatory innovation sandboxes to create more meaningful, effective and close-to-reality standards and labelling.
 - There is a need for a catalogue of all bio-producers, widely and publicly available.
 - Develop a network of different providers to improve the information exchange with national governments.
 - Pursue dialogue between government actors and bio-based industries to enhance deployment of bioeconomic principles in the governmental domain, e.g. in public procurement.
 - Facilitate collaboration between sectors by offering and promoting

			<p>initiatives that support multi-level cooperation and creation of multi-stakeholder networks.</p> <ul style="list-style-type: none"> - Use best practice examples as inspiration for all actors to promote procurement of bio-based products by industry and the public sector. - Promote evidence-based policymaking by accessing actionable knowledge in the form of data, key performance indicators (KPI) and assessment tools to support the design of effective policies to assess the impact on society, environment and the economy in the short, medium and long term. - Assess the effect of government subsidies for bio-based sectors and address any unintended consequences. - Adjust direction and issue revised research calls in response to information obtained from the monitoring of current policies. - Measure and evaluate the ongoing practical impact of policies supporting bio-based sectors. - Ensure regional and local authorities have access to appropriate actionable knowledge to support the implementation of policies and initiatives.
<p>Research</p>	<p>A1, A2, A3, B3, C2, C3, D1, D3, E1 & E2</p>	<ul style="list-style-type: none"> • Researchers must commit to <u>Communicating</u> Circular Bio-based Economy research to all stakeholders 	<ul style="list-style-type: none"> - Develop a dialogue between researchers and consumers - Create appropriate research awareness campaigns using qualified information presented through attractive communication addressed to all generations, using a terminology that everyone can understand. - It is crucial to involve researchers in the dissemination of a simple and clear message and to involve citizens in the testing out of bio-based innovations – citizen science.

- Develop a Common Language to describe research into the circular bio-based economy that can be understood by all stakeholders and actors
 - Bio-based research should focus on Best Use of Resources as fossil-based products may be more appropriate for certain applications
- Continuously promote the benefits and unique selling points of bio-based products from early stages of research to product development via various channels including all forms of social media.
 - Communicate research findings and developments within a circular bio-based economy approach to maximise the impact of research within the sector on **all** sections of society.
 - Actively participate in events such as “Researcher’s Night” and communicate circular bio-based research to a civil society audience.
 - Research participation is required to increase awareness and active knowledge of circular bio-based terminology, to develop a common language and a universal terminology to increase the dialogue between all stakeholders.
 - Develop appropriate research awareness campaigns using qualified information presented through attractive communication addressed to all generations, using a terminology that everyone can understand.
 - Define clear objectives involving all stakeholders involved in designing, delivering and utilising research agendas focused around the circular bio-based economy to drive and support collaboration in order to achieve common goals.
 - “Get the story right and be the advocates”
 - Bio-based product research must ‘choose its niches’ – particularly at the ‘early development’ stage in order to maintain its relevance to society.
 - Researchers must identify opportunities that make the best use of available resources as

- Prioritise and provide bio-based circular economy related Skills Education for students, graduates and employers.
 - Valorise and Communicate Best Research Practices to support the bio-based sector.
 - Information Must Be Shared not held back under Intellectual Property (IP) rules.
- sometimes fossil is more appropriate for certain applications.
 - Researchers have an opportunity to reach and inspire younger generations by working with schools to create campaigns and projects that act as amplifiers.
 - Researchers are well placed to identify opportunities to increase the promotion of bio-based product research using new technologies to communicate research innovations.
 - Research institutions must work with industry to support the delivery of circular bio-based economy skills training that is essential for the development, maintenance and repurposing of workforces maximise emerging opportunities.
 - Work in partnership with key stakeholders to develop school level awareness of circular bio-based economy via national curriculum.
 - Research institutions have a responsibility to communicate to highlight excellence and stimulate discussion in order to valorise research best practice related to the development of bio-based products through the exploitation of already financed instruments, such as platforms.
 - Opportunities for public outreach should be pursued. Research case studies and best practices from research to product marketing can have strong motivational power.
 - Research findings and developments should be communicated within a circular approach to maximise the impact of bioeconomy research on all sections of society.
 - Enhance potential commercial uptake of BBP by addressing the locking of Intellectual Property (IP)

- Support the creation of an Open Access Knowledge Hub for information on bio-based product research whether positive, negative, utilised or not.
- Research should develop and drive clearer Connections to and Understanding of Market Needs

- Focus research using Cascading Principles to optimise resource use and reuse.

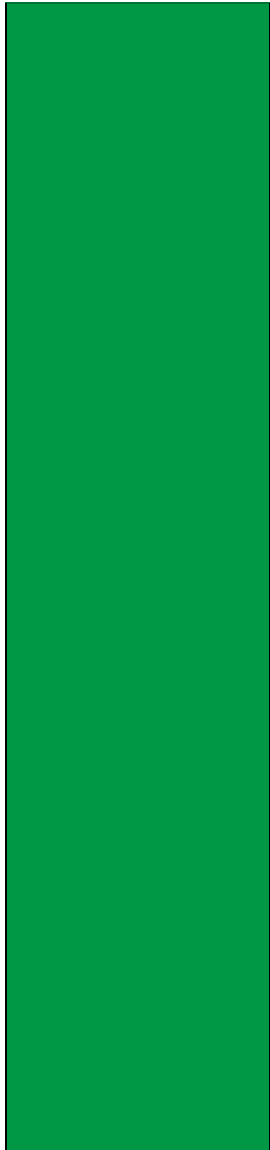
within universities and research institutions.

- Research progress and outcomes must be shared in timely and effective ways for the benefit of society not just the holders of the information - utilising accepted good practices that stimulate engagement and discussion.
- Create an open source collective knowledge hub that maps information on all university, EU funded and associated BBP research whether taken to commercialisation or not.
- Connect the actors in order to promote dialogue and build bridges to bring academics closer to other stakeholders preventing sectors from working in silos.
- Researchers must co-operate with relevant stakeholders to ensure that the full value of bio-based research is made widely accessible to feed into market development.
- Research ecosystem is well placed to connect all actors, to build bridges that bring academia closer to business, policy makers and consumers to deliver actionable knowledge and engagement within the circular bio-based economy.
- Research findings, if communicated appropriately can aid institutionalised knowledge exchange between purchasing and expert departments relating to technical specifications and sustainability criteria such as Life Cycle Assessment.
- Research should suggest optimised pathways for biomass utilisation, through cascading use of resources, to ensure sustainability and maximize the exploitation
- Analyse cooperation within the value chain with a focus on better end-of-life solutions. CO₂ impacts

- Involve Regional and Local Stakeholders in research agenda development and actions to boost routes to local development.

 - Be aware that Regulatory Frameworks can Lag Behind innovative research, hindering innovation & implementation.

 - Prioritise research topics that Explore the Effects of a Scaled-up Circular Bioeconomy on regional and local ecosystems.
- are related to the cascading principles that give priority to higher value uses that allow the reuse and recycling of products instead of burning or composting them.
 - End of life options for bio-based products critical for up-scaling potential.
 - Focus research on CO₂ impacts instead of bio-based inputs as priority is given to a reduction of CO₂-impacts within the circular economy.
 - Bring regional and local stakeholders into contact with the research ecosystem via the creation of multi-actor networks to secure multi-level cooperation.
 - Actively participate in providing technical input to forward the development of regional bioeconomy clusters as a strategic component of industrial policy to support synergies and innovation within the circular economy.
 - Investment in research and in the relative dissemination and exploitation of results by all local stakeholders will assist in regional and local development, of the circular bioeconomy.
 - Understanding of and communication with policy and regulation landscape & agencies is essential at all stages of research to planning effective research initiatives.
 - The research community must investigate possible negative effects such as rebound effect and suggest roadmaps for sustainability to ensure that a possible bioeconomy scale-up will not impact negatively on society or the environment.
 - Successful implementation of research-based innovation is



- The research community has a role to play in defining Criteria for Monitoring Bioeconomy Impacts and developing benchmarks to evaluate these impacts against fossil-based counterparts.

- dependent on a 360° assessment of impact on bio-related agriculture, water & land use, and biodiversity.
- Enhance research which clarifies the CO₂-impacts of bio-based products compared to their fossil-based counterparts. LCA-analysis and Total Cost of Ownership (TCO) are important tools for this.
- Develop benchmarks for life cycle assessment (LCA) and define thresholds for sustainability assessment.
- Focus research on finding tools to assess the impact of composite bio-based materials.
- Work with all stakeholders to define key performance indicators (KPI) to support bio-based industries, defined in the short, medium and long-term.
- Offer research input into methods for calculating the impact of a bio-based product compared to a fossil-based one, including externalities, that can be used by civil society to understand environmental, social and economic impacts of bio-based products.
- Simplify the benchmarking process so it is applicable for use by SMEs and start-ups.

Further, these recommendations are meant to uphold a framework of recommendations to support and drive citizen engagement, advocacy and ultimately action to support the purchase and use of bio-based products (BBP) and services. They are relevant to all key stakeholders and for consideration during the design of their own plans for citizen engagement. More detailed information regarding this is availed in the Action Plan for citizen engagement, however briefly you can have a glimpse at some of the recommendations therein. The methodology used to develop the Action Plan is laid out in D6.3. It goes without saying that these recommendations were gathered based on information from BIOVOICES MML events that involved stakeholders from across the quadruple helix (Business, Civil society, Policy and Research) held in over 10 countries from 2018 to 2021.

Key Strategic Concepts	Actions to deliver the Key Strategic Concepts.
CLARITY	Use a Common Language accessible by all consumers



	Secure Standards in your sector to build TRUST in BBP among consumers
	Use Labelling that is clear, accessible and consistent
	Deliver Honest Messaging about potential impacts of BBP to develop consumer TRUST
TRANSPARENCY	Base organisational plans on Sound Bio-based Principles
	Commit to utilising Best Practice & up-to-date Knowledge
	Plan for Flexibility to be ready to respond to new opportunities
	Welcome internal and external Scrutiny & Challenge
COLLABORATE	Plan to Engage with Citizens from the start locally and regionally
	Commit to Continuous Engagement with citizens
	Ensure up to date multi-flow of information between all stakeholders
	Access Engagement Expertise as required to maximise collaboration
EDUCATE	Educate Your Workforce about BBPs and sectors based on trusted scientific knowledge
	Keep up-to-date with Emerging Knowledge to cascade to staff & citizens - leverage multipliers
	Support campaigns to develop Curricula on bio-based awareness for Schoolchildren
	Plan regular Public Education initiatives on circular bio-based economy locally and regionally
OPEN ACCESS	Commit to making Your Information Available to facilitate access to knowledge for all
	Contribute all your information to platforms, negative as well as positive
	Check for Duplication of actions and information – don't reinvent the wheel
	Access and Utilise platforms relevant to you to keep messaging for citizens up to date
	Cascade information to both Internal and External actors at all levels
BIG DATA	Collect Data Relevant for you and that supports citizen engagement
	Commit to Contributing Data to appropriate platforms
	Access, Utilise and Analyse all data to enhance your understanding of citizen perspectives
MAKE YOUR VOICE HEARD	Use your experience to empower the citizen as a Driver of Change
	Raise Questions and Concerns across appropriate networks



	Start the debate about key issues by offering your perspective
	Your Contribution Counts – collective voices drive change
COMMUNICATE	To Inspire citizens by attracting their attention
	To Inform citizens to deepen understanding
	To deliver Experiences to citizens to embed understanding
	To Engage with citizens – and maintain that engagement
	To drive Advocacy and Action to support behaviour change

5. DISCUSSION POINTS

During the MMLs a variety of challenges and opportunities for the uptake of sustainable bio-based production and the bioeconomy as a whole have been identified. Ideas on how these can be tackled by all the relevant stakeholders at all levels – from local/regional to national and European – range e.g. from CO2 taxation to a more efficient and transparent citizen engagement. These challenges named during the discussion are clustered and presented in the text below and serve as a good base for further topics to be addressed and brainstormed about in scope of future events and to be developed into the final report, policy document, etc.:

Awareness raising and Communication

- Lack of awareness and knowledge
- Not easy to understand the contents and terminology; messages are too abstract they should be simple, concrete, applicable in real life
- Confusion about bio-based certification and Contradictory messages
- Language barriers
- Need to address societal and consumer concerns, integrating citizens’ needs in industrial and policy agendas
- Build trust and acceptance
- Fake news and miscommunication
- Green washing communication
- Beyond awareness: how to change peoples’ attitudes and behaviours
- Need to address not only citizens, but other stakeholders like farmers, procurers, intermediaries
- Engage all the stakeholders (policy makers and citizens are not easy to be involved)
- Difficulties in capturing industrial interest

- Difficulty in reaching less mature countries (like Eastern European ones)
- Difficulties in reaching some targets (like elderly people)
- How to increase the awareness in case of the general public
- How to engage the Media
- Who should be involved to provide solid background knowledge (research, industry, policy makers)
- Who are the multipliers to involve and how
- Communication in context of circular economy

Bioeconomy Education

- Lack of awareness prevents the exploitation of opportunities (public procurement, differentiation of income for primary producers)
- Train new experts and prepared educators
- Terminology gaps and confusion
- Education should start early; need to teach bioeconomy and green education to young generations (from primary schools)
- Need to map new job opportunities and related educational needs
- Lack of Regional strategy in order to promote educational programmes tailored to specific local needs
- Matching industry needs of skilled workforce; need to boost Industry engagement with education
- Need to raise policy makers interest in bioeconomy education programmes; need to convince education ministries to implement the change: education should be a long-term investment for the governments
- Lack of Interdisciplinarity and Inter-sectoral approach in the design of educational curricula
- Bioeconomy requires transversal competences
- Bureaucracy to activate new curricula in universities
- Fragmentation, need to align educational programmes in Europe, missing Educational programs in several countries (like Eastern countries)

Standardisation, labelling and regulatory hurdles

- The bioeconomy encompasses domains that are very different (Agri-food, Biotech, etc.). The complexity and wide scope of the bio-based economy makes it difficult to define the regulations and horizontal standards that could be applied to all the domains.
- How to benchmark life cycle assessment (LCA) and define thresholds for sustainability assessment? How to calculate the impact of a bio-based products compared to a fossil-based one, including externalities?
- Standards are typically made for FBP (Fossil Based Products) and the methodologies used for FBP often cannot comply with BBPs (Bio-Based Products) (e.g. Standards typically measure the performance of products that are composed of a single material, while often BBPs are composed of several materials. There are no tools to assess the impact of combined products).
- The complexity of BBPs and their different characteristics (e.g. materials, properties, biodegradability) create problems for Ecolabels that certify the global sustainability of a product.

- The bio-based economy is sometimes regulated by policies, legislation and standards from other domains (for example reach, energy directive, etc.) which have different goals and objectives sometimes creating hurdles and bottlenecks for the bio-based economy.
- There is a lack of harmonisation among different policies (overarching regulations, new policies, among countries, etc.)
- Lack of synergies and common understanding between various ministries responsible for the different policies. Need for a holistic political approach to drive the transition (e.g. legislation supporting circular economy can conflict with bio-based economy supporting instruments).
- The most urgent domains where standardisation should be better regulated, are the following: end of life management, waste, compostability of bio-based products.
- Difficulties to access to labelling and certification schemes for SMEs and start-ups
- Need for a clear, understandable and trusted labelling system for the demand chain (consumers, B2B, procurers)
- Insufficient deterrents and directives banning FBP
- Complexity of cascades; Cascading versus Circularity
- Risk of Greenwashing

New value chains and business models

- True circularity
- Feedstock providers not integrated into value chain
- Supporting environment
- Biomass origin
- Social acceptance
- Adaptation to regional development strategies
- Recruiting of competent workers
- Strategic business models
- Logistics and costs
- Competitive price
- Local valorisation
- Boost the mobilisation and utilisation of unused biomass
- Increase awareness and involvement of Biomass suppliers
- How to adapt global ideas and process to complex locality and unique cultures and societies
- Promote creativity with all stakeholders
- Feedstock availability
- Life cycle assessment studies to validate new business models
- CO2 tax
- Technical and cost performance of many bio-based products
- Benefits for ALL actors in the value chain
- Policy support
- Quality and storage of feedstock
- Integrate processes for full biomass conversion into diverse bio-based products
- Increased extraction costs of raw material
- Regulations
- Acceptability of raw material use
- Standard European regulation for all Europe about end of waste and waste-into-best concept
- Intellectual property
- Commitment of partners for the investments

5. CONCLUSIONS

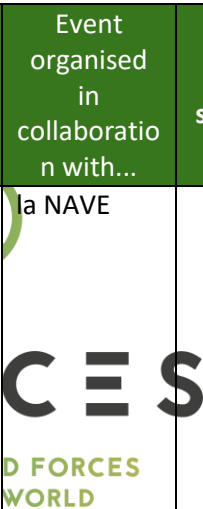
The overall aim of the presented report on MML events, carried out within the scope of the BIOVOICES project, was to report on the outputs of all the 76 MMLs organized until January 2021. The said report is part of WP6, is referred to as D6.2 and offers the ‘key recommendations and insights’ gained thanks to the applied Mobilisation and Mutual Learning Approach.

The **European, National and Regional MML events** reported were mostly targeted to engage European, national and regional communities where the Mobilisation and Mutual Learning approach was based on cross-sectorial engagement of multiple stakeholders, with a special focus on the involvement and contribution of the civil society.

Participants at the events were invited to name the challenges they have encountered and potentially offer solutions to them, and at the same time they were also encouraged to discuss specific subjects and topics in line with the application sector they came from. Key insights were gathered at these events regarding the progress of BBPs and the wider bioeconomy/circular economy. The common recommendations and insights across all MML events were then broken down into applicability to each stakeholder group involved. Additionally, discussion points raised during the MML events have been collected and presented to the reader. Lessons learnt during event organization are also summed up to help depict the growth and journey travelled from M1 to M37. Moreover, it is important to note that with the upsurge of the COVID-19 pandemic, we moved most of our events online which as depicted above gave us much larger audiences which resulted in wider dissemination of our information. Even though we missed the physical meetings, it is good to note that consortium partners adopted to the new normal as fast as possible and we were still able to organize the planned events accordingly.

APPENDICES

The overview of all MML events carried out until January 2021 is available below.

Country	City	Start date	End date	Scale	Challenge	Event organised in collaboration with...	Which application sector/s were involved?	Title and short description of the event	Partner responsible
Spain	Madrid	15/02/2019	15/02/2019	Regional	B2/B3	 <p>la NAVE</p> <p>C E S</p> <p>D FORCES WORLD</p>	All	Interactive workshop with high school students where they can learn about bioeconomy, and how it is a fundamental part of biotechnology. Through practical activities they themselves will participate in what bioeconomy is, how it is present in our lives every day and how more sustainable products are created with its use (bio-based products).	ASEBIO
Spain	Madrid	13/02/2019	13/02/2019	Regional	E1/C3	Transfiere	Agriculture, Agri-food & Food	Knowledge transfer to the productive sector in the field of bio-based products to facilitate their development and marketability.	ASEBIO
Spain	Jaén	17/05/2019	17/05/2019	Regional	B2/B3	BLOOM project	Agriculture, Agrifood, Packaging	International Fair of Oil: Expoliva	ASEBIO

Romani a	Cluj	14/04/2019	14/04/2019	Regional	E1, E3		Agriculture, Agrifood	Raise awareness of the importance of bioeconomy and bio-based products among farmers, specialists, managers and authorities from agriculture.	FRONTIER
Romani a	Arad	24/05/2019	24/05/2019	Regional	D1, D3		<u>Packaging, building and construction.</u>	Raise awareness about the bioeconomy in the plastic, rubber and composite materials industry	FRONTIER
Italy	Rome	12/10/2018	14/10/2018	National	E1, E2		All	Improve understanding of challenges, opportunities and barriers to promote changes in purchase habits at Maker Faire Rome 2018	FVA
Italy	Rome	12/10/2018	14/10/2018	National	E1, E2		All	Increase awareness and trust on Bio-Based Products at Maker Faire Rome 2018	FVA
Italy	Biella	09/04/2019	09/04/2019	Regional	E1/E2	Chamber of Commerce of Biella and Vercelli, CNR National Research Council, the	Bioeconomy in general	Bioeconomy as an opportunity to boost local development based on territorial resources. The workshop aimed to stimulate and facilitate the collaboration between stakeholders	FVA

						European Bioeconomy Network, Chimica Verde Bionet, Onda Verde Civica and the BIOPEN project		for the creation of shared action plans, to promote regional development, based on Piedmont territorial resources, with particular attention to the textiles industry.	
Italy	Bari	19/03/2019	19/03/2019	Regional	E1/E2	Assobiotec, Biocosi, CNR, Cluster SPRING, Federchimica, FVA New Media Research, GRACE, Mistral, Power4Bio, University of Bari Aldo Moro, VALUEMAG	Bioeconomy in general	Bioeconomy as an opportunity for regional development based on territorial resources in APULIA. Main objective was to encourage the involvement and collaboration between local actors, to identify opportunities for territorial development that are able to enhance regional characteristics and existing resources	FVA
Italy	Latina	26/09/2019	26/09/2019	Regional	D1/E2	Lazio Innova, Innova camera, CNR	All	Maker Faire Academy - Blue Bioeconomy: valorisation of marine resources between environmental protection and	FVA

								economic and social development	
Germany	Bonn	29/05/2019	29/05/2019	National	B2/C2/D3	BLOOM and BIOBRIDGES (H2020 Projects)	All	Challenges and opportunities for bio-based products in Germany	ICLEI
Germany	Sigmaringen	03/07/2019	03/07/2019	Local	E2	The City of Sigmaringen	packaging, food	local feedstock for the bioeconomy - challenges and opportunities	ICLEI
Portugal	Lisbon	29/05/2019	29/05/2019	National	E1/ B2	Lipor; EUBCE Conference	Fertilizers/ Municipal-waste-derived products	Agricultural and forestry biomass as innovation boost for small scale farms	LOBA
Portugal	Lisbon	27/05/2019	30/05/2019	National	All	Lipor; EUBCE Conference	N/A	BIOVOICES at EUBCE (Stand-up workshop during 4 days of the faire)	LOBA
UK	Cirencester	19/03/2019	19/03/2019	Regional	All	Farm491	AgriTech	Challenges and opportunities for bio-based products/applications in UK AgriTech sector	Minerva
UK	Biovale, York	09/04/2019	09/04/2019	Regional	All	BioVale, York	Waste Valorisation	Challenges and opportunities for bio-based products/applications in UK waste valorisation sector.	Minerva

UK	BEACON , Aberystwyth, Wales, UK	19/06/2019	19/06/2019	Regional	All	BEACON, Aberystwyth, Wales, UK	Biorefining, Bioeconomy in general	UK Wales regional MML Event. BEACON project (ERDF) Aberystwyth UK.	Minerva
UK	Norwich Research Park, UK	02/07/2019	02/07/2019	Regional	All		Bioeconomy in general	UK East Anglia regional MML Event. Norwich Research Park, John Innes Centre, University of East Anglia.	Minerva
UK	Scotland	02/10/2019	02/10/2019	National	C3, D3	Chartered Institute of Wastes Management	Food packaging	UK National Event - Scotland	Minerva
Slovakia	Bratislava	27/09/2018	27/09/2018	Regional	A2, B2	Urban Summit	Construction, Packaging, Textile	MML in Slovakia (Urban Summit)	PEDAL
Slovakia	Nitra	22/10/2018	22/10/2018	National	A2	Slovak University of Agriculture	Construction, Packaging, Textile	Sustainable and circular Bioeconomy in Slovakia	PEDAL
Slovakia	Nitra	11/04/2019	11/04/2019	Regional	E1, E2	Made in Danube project	Food and food additives	Regional MML in Slovakia: Enhancing local action plans and boosting local deployment	PEDAL
Greece	Thessaloniki	10/05/2019	11/05/2019	National	D1	Greek Bioeconomy Forum	N/A	The development of bioeconomy in GreeceQ Bringing the needs of all stakeholders	Q-PLAN

Netherlands	Utrecht	08/01/2019	08/01/2019	National	A1/B2-D2	WR-research programme	Building	Social innovation for a sustainable environment with bio-based materials	WR
Netherlands	Berg op Zoom	18/04/2019	18/04/2019	National	A1/A3/D2	NFT2019	Building/insulation	Natural insulation in transition.. Natural insulation has a low share in Europe (4%) and is even lower in the Netherlands. How to increase this share by a better cooperation among the suppliers, adjustment of quality marks and more involvement of forerunners?	WR
Belgium	Brussels	28/03/2018	28/03/2018	European				Maximizing Collaboration among EC Funded project communicating about bioeconomy	APRE, FVA, QPLAN (organiser and moderators)
Belgium	Brussels	22/05/2018	22/05/2018	European				Boosting circular bio-based economy in cities Lessons learnt from EU funded projects and local stakeholders	ICLEI
Netherlands	Eindhoven	23/10/2019	23/10/2019	Regional	A3/B3	DDW2019	Building/insulation	Natural building materials in transition. Natural building and insulation in the Netherlands. How to increase this share by	WR

								more knowledge among building markets and consumers	
Netherlands	Breda	07/11/2019	07/11/2019	Regional	A3	BIOVOICES event	Food packaging and disposables	How to improve biobased plastic packaging and disposables for single use and comply with the upcoming Single Use Plastics directive	WR
Greece	Kozani (Western Macedonia)	21/09/2019	21/09/2019	Regional	E1	Balkan Clean Energy Transition BCET 2019 International Conference and Fair	Agri-food sector, agriculture, textile products, chemicals	Title: "Clean energy transition through circular bioeconomy and industrial symbiosis" Scope: the role bioeconomy could play at a regional level for the clean energy transition	Q-PLAN
Belgium	Gent	19/11/2019	19/11/2019	Regional	B3	Flanders bb business day	Food packaging and disposables	How to improve the communication of biobased plastic packaging	WR
Romania	Bucharest	01/11/2019	01/11/2019	National	A3	INDAGRA International Agricultural Fare	Food packaging and disposables	Integrating organic products into the food industry	FRONTIER

Slovakia	Bratislava	07/11/2019	07/11/2019	Regional	A2, B2, B3	Packaging and construction	<p>The event offered attendants of the biggest “urban” festival in Bratislava, which focuses on various aspects of living in a city through discussions, workshops and presentations, opportunity to discuss commercial specifics of biobased products (BBPs). There are many initiatives or even SMEs trying to market BBPs in Slovakia, but there are often missing the target due to insufficient knowledge and understanding of the existing challenges. This workshop was part of a joint-event with the project Biobridges. Also, the event was designed to offer opportunity for various stakeholders to meet and get to know each other, potentially creating networking synergies for the future.</p>	PEDAL
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Estonia	Tallinn	06/11/2019	07/11/2019	National	E1		bioeconomy	From the bioeconomy through a value chain perspective and opportunities for stakeholder engagement	Civitta
Estonia	Tartu	01/11/2018	02/11/2019	Regional		Bioinnovati on Days 2019	innovative products	Biohackathon for master and doctoral students	Civitta
France	Paris	31/10/2019	31/10/2019	European	B2, B3	LIFT, EuBioNet, European Bioeconomy Workshop	all	Shaping the bio-based economy involving citizens through a participatory approach	PEDAL
Slovakia	Bratislava	22/10/2019	22/10/2019	National	D2	Fintech Summits	bioeconomy	How can banks align their "Green KPIs" in the context of the Slovak Bioeconomy Strategy which is currently under preparation?	PEDAL
Belgium	Ghent	19/11/2019	19/11/2019	Regional	B3	FBBV & BBD	Packiging and construction	How to communicate biobased with sustainable packaging	WR
Portugal	Caparica	04/09/2019	06/09/2019	National	B3-D3	Lipor Wastes2019 Conferece		#WasteToProducts Is it possible to develop environmental and economical sustainable bio-based products from waste in Portugal? YES! An example is the sustainable and bio-based soil improver Nutrimais developed by	LOBA

								Lipor! But how to effectively target farmers, to boost such sector?	
Netherlands	Bergen op Zoom	16/04/2020	16/04/2020	National	A1/A3/D2	NFT2020	Building/insulation		
Italy	Rome	17/10/2019	17/10/2019	National		Forum BuyGreen - Forum Compraverde	bioeconomy, packaging, food, buildings	The workshop titled "The bio-economy in Italy: incentives, laws, norms" was organized in the framework of the "forum BuyGreen 2019" the link for more info is: https://www.biovoices-platform.eu/registeredarea/mmls/viewMml/5516	CNR
Estonia	Pärnu	10/08/2019	10/08/2019	Regional		InAugust	domestic waste and food	Waste management panel and MML Workshop "Plastic ABC – how to reduce plastic waste and select best alternatives"	Civitta
Italy	Roma	18/10/2019	18/10/2018	National	C2	Forum BuyGreen-Forum CompraverdeFVA	All	The role of Green Public Procurement (GPP) in boosting the Bioeconomy: challenges, opportunities and barriers to overcome	APRE

Italy	Trieste	24/05/2019	24/05/2019	National	D3, E2	PRO-ESOF	All		The alliance between primary production and bio-based industries. A macro regional approach	APRE
Italy	Palermo	24/09/2019	24/09/2019	Regional	E1	-	ALL		High environmental risk areas: from the circular bioeconomy to regional strategies for sustainable development	APRE
Italy	Udine	24-01-2020	24-01-2020	National	E1	Friuli Venezia Giulia Region, European bioeconomy Network	All, Education		Bioeconomy in Friuli Venezia Giulia - Focus on training and orientation to support sustainable and circular development	FVA
Estonia	Tartu	29-01-2020	29-01-2020	National	E1	Tartu Biotechnology Park /Startup Day 2020	New Biobased products		From the idea to sustainable biobased product	CE
Italy	Rome	30-01-2020	30-01-2020	Regional	E2, B2	Lazio Innova, Novamont	All, Education		Increase Bioeconomy Acceptance involving Teachers and Students	FVA
Greece	Thessaloniki	31-01-2020	31-01-2020	National	D3, E2	BIOBRIDGES, the Centre for Renewable Energy	Farming, Business in Agriculture, Bioenergy		"Biomass and the agricultural sector" - The aim was to facilitate discussion on challenges and opportunities that	Q-PLAN

					<p>Sources & Saving (http://www.cres.gr/cres/index.html), the Centre for Research and Technology Hellas (https://www.certh.gr/), the Institute of Agricultural and Cooperative Economy (https://www.neapases.gr/) - The results of 11 projects funded under EU and national programmes were presented focusing on “new</p>	<p>farmers, farmers associations, companies in the agricultural sector, public authorities etc. face regarding the use of agricultural biomass for bioeconomy purposes</p>
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Greece	Thessaloniki	02-02-2020	02-02-2020	National	D1	<p>industrial crops for bioenergy and bio-based products production” and “utilization of agricultural waste and by-products for bioenergy and bio-based products production”</p> <p>. BIOBRIDGE S and the Cluster of Bioeconomy and Environment of Western Macedonia (https://clusterbe.gr/) - the results of 2 EU-funded</p>	Business in Agriculture, Biofuels and bioenergy	Innovative agricultural business models	Q-PLAN
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Greece	Thessaloniki	08-02-2020	08-02-2020	National	D1	projects were presented Greek Bioeconomy Forum	Bioplastics, Packaging	Bioplastics: A business case for Greece?	Q-PLAN
Germany	Freiburg	13-02-2020	13-02-2020	National		Congress of Energy-autonomous Municipalities	Building/construction	Entwerfen & Bauen mit erneuerbaren Rohstoffen – Herausforderungen und Perspektiven / Designing & building with renewable raw materials - challenges and perspectives	ICLEI
Spain	Madrid	27-02-2020	27-02-2020	National	A3, D2, D3	Biovegen, R&D network in Plant Biotechnology	Food and packaging	AgriFood in the center of Bioeconomy	AseBio
Finland	Helsinki	08-07-2019	08-07-2019	European	E1, E2	Biobridges and BioCannDo projects	All	“The role of communication and education to promote changes in purchase habits and increase the adoption of bio-based products”	FVA
Netherlands	Online	16-04-2020	16-04-2020	National	C2	NFT2020	Building/insulation	Upscaling bio-based building materials	WR
Online (Italy)	Online	21-04-2020	21-04-2020	National	A3, D2,	Biobridges, University of Bari	Wool value chain	Creating a local wool value chain in Italy	FVA

Estonia	Tartu	24-10-2020	24-10-2020	Regional	All	Tartu University / EIT Heath, EIT Food	All, new products	Bioinnovation day 2020	CE
Online (Italy)	Online	30-04-2020	30-04-2020	National	B2, C2, E2	Cluster SPRING	All	The Bioeconomy as a response to the COVID-19 economic crisis	APRE
Online (Italy)	Online - Trapani	12-06-2020	12-06-2020	European	E1, E2	European Society for Marine Biotechnology ESMB	All	MARINE BIOBASED PRODUCTS: CHALLENGE FOR A SUSTAINABLE INNOVATION BASED ON THE THREE P's (PLANET, PEOPLE, PROFIT)	APRE
Online (Italy)	Online	02-09-2020	02-09-2020	European	D1	ESOF	All	The role of systems' integrators in facilitating the Quadruple Helix Stakeholders collaboration to co-create a sustainable circular bioeconomy ecosystem	APRE
Online	Online	16-09-2020	16-09-2020	European	C2, E1	BIOPRO BW, Ministry for the Environment, Climate Protection and the Energy Sector, Baden Wuerttemb	All	Deploying regional and local bioeconomies in Europe - strategy and implementation	ICLEI

Online (Italy)	Online	30-09-2020	30-09-2020	European	A2, A3	erg, Italian Composting and Biogas Association, WCYCLE/City of Maribor IFIB, CLuster Spring	All	The hard way to the market: how to support start-ups and spin-offs in the bio-based sector? "One of the great challenges and doubts when creating a bio-based company or working with bioproducts, is to get access to financing and investors.	APRE
Online (Spain)	Online	28-09-2020	01-10-2020	European	D1	Investor Day	Investors		AseBio
Online (Germany)	Online	02-10-2020	02-10-2020	European	C2, E1, E2	Mannheim2020 - European Sustainable Cities & Towns Conference, PlastiCircle and CityLoops			ICLEI
Online (Italy)	Online	09-10-2020	09-10-2020	National	C2, E1	Forum Buygreen	All		Investors are an important stakeholder involved in bioeconomy, they can give a clearer

Online (Italy)	Online	14-10-2020	14-10-2020	European	C2; C3	Biobridges, University of Bari, Brebey	Wool value chain	picture of what the challenges are in this specific topic and what is necessary or how can they be addressed. "	FVA
Online (National)	online	28-10-2020	28-10-2020	National	A1, A2, A3, B2, B3, C2, C3, D1, D2, D3, 2G, E1, E2	RoHealth Cluster	Health	Plastic, construction and bio-waste: too valuable to waste	FRONTIER
Greece (mainly), Italy, Spain, Germany, Latvia, The Netherlands	online	09-12-2020	09-12-2020	National	A3, B3, C2, D1, E2	"Greek Bio-Economy Forum,	all	Policies, regulations, R&I funding programs and investments to boost Bioeconomy in Italy	Q-PLAN
online(Romania)	online	19-11-2020	19-11-2020	Regional	A3, D1, E1	Center for Renewable Energy Sources and Saving,	all	The wool value chain in Europe - Decision making process to support the creation of shared values and practices	FRONTIER

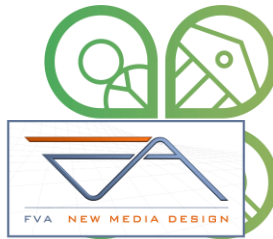
online (Spain)	Online	22-11-2020	22-11-2020	Regional	B2	Maker Faire Galicia	All	Collaboration and communication to promote Bioeconomy	Asebio
online (Spain)	online	26-11-2020	26-11-2020	National	C3	AseBio Green Innovation Forum	Waste	From waste to bioproducts	AseBio
Online (European)	Online	16-12-2020	16-12-2020	European	A3, B2, B3	RoHealth Cluster	Food packaging	The Importance of the Bioeconomy in the Usage of Renewable Energy @Annual Conference Ro-Boost SMEs	APRE
Online (Italy)	Online	11-11-2020	11-11-2020	National	E2	Maker Faire Galicia	All	Collaboration and communication to promote Bioeconomy	APRE
Online (Belgium)	Online	14-12-2020	14-12-2020	European	E2	AseBio Green Innovation Forum	Aquaculture	From waste to bioproducts	APRE
Online (Romania)	Online	18-12-2020	18-12-2020	Regional	A1, A3, E1	GLOPACK, MYPACK, Biobridges	Agriculture	Bio-based materials for food packaging: replacing plastics and addressing consumers' expectations	FRONTIER
Online (Italy)	Online	14-01-2021	14-01-2021	National	E1	Biogoal, Cluster BIG, CLuster SPRING	Waste, packaging, Agriculture, phishing	Implementing bioeconomy in contaminated areas - the National Action Plan and the possibilities for the Sicily region	CNR

You can find the individual summary reports from all events via the Biovoices Platform:

<https://www.biovoices-platform.eu/registeredarea/mmls>



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