BIOVOICES

POLICY BRIEF FOR THE BUSINESS SECTOR

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#1

Introduction to the Policy Briefs

Four Policy Briefs have been created, one for each quadruple helix stakeholder group (civil society, research, business, policy sectors) - to present the insights gathered from the BIOVOICES experience - over 70 Mobilisation and Mutual Learning events - in a format that is both straightforward, accessible and usable.

These documents have been developed for active use and exploitation by the key stakeholders of the quadruple helix and all actors working across the circular bio-based economy, in their work and practice to deliver knowledge, best practice and lessons learnt to drive debate, support pro-active discussion and collaboration to address the associated challenges relating to the up-scaling of bio-based products (BBP).

The key themes from the Policy Briefs common to all stakeholder groups have informed the development of the BIOVOICES Action Plan for Citizen Engagement which is a framework of recommendations for all stakeholders to consider when designing and delivering their own action plan to drive citizen engagement, advocacy and ultimately action to support the purchase and use of bio-based products (BBP) and services for the benefit of key stakeholders and society as a whole.

BIOVOICES materials to enhance citizen engagement are available to download at https://biovoices.eu

#2

The Policy Context

BIOVOICES has run from January 2018 to April 2021, its start coinciding with the launch of the EC's revised **Bioeconomy Strategy**[1]. Throughout the project, the gathering of key insights and actionable knowledge from MML events has been coloured by the constantly evolving nature of the wider socio-economic and policy landscape and in the last year the impact of Covid-19. Due to restrictions imposed by the pandemic, many MML workshops planned for 2020 have been transformed into online events, resulting for many, 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.

Global economic challenges have provided a constant backdrop to the BIOVOICES project and are reflected in the selection of the BIOVOICES challenges relating to the market acceleration of innovative bio-based products (BBP). The policy background against which the BIOVOICES project has been delivered is outlined here. The update of the EC **Bioeconomy Strategy** published in October 2018 reconfirmed the urgent need for development of the bio-based sector.

"Global challenges like climate change, land and ecosystem degradation, coupled with a growing population force us to seek new ways of producing and consuming that respect the ecological boundaries of our planet."

The **European Green Deal**[2] launched by the new EU Commission (EC) in December 2019 aims to drive the transition to a fair and prosperous society, with a modern, resource-efficient and competitive economy in Europe, promoting a new economic action plan to help modernise the EU's economy and draw benefit from the opportunities of the circular economy domestically and globally.

The Green Deal is an integral part of the Commission's strategy to implement the **United Nation's 2030 Agenda**[3] and the associated sustainable development goals (SDGs), the COP 21 Paris Climate Agreement[4] and the other green priorities announced in **President von der Leyen's political guidelines**[5]**.** Additionally, the **"Decade of Action**[6]**"** , promoted by UN Secretary-General, calls for accelerating sustainable solutions to all the world's biggest challenges, applying the 'do no harm' principle, which will require honest communication and 360º vigilance against 'unexpected adverse consequences'.

Since 2010, as described in the **Europe 2020 Strategy**[7] , the bioeconomy has been identified as a key element for driving smart and green growth in Europe, aimed at alleviating pressures on the natural environment, whilst creating new business opportunities, employment and growth.

At the European level, whilst a dedicated bioeconomy strategy has been in effect since 2012, it is presented as a 'Communiqué' not as legislative proposal. This strategy was updated in 2018 together with a progress report on implementation ("EC Bioeconomy Strategy," 2018). The strategy provides a framework for shifting the economic resource base in Europe from a linear model drawing on finite raw materials, to a circular model that focuses on innovative renewable materials from biomass from land and sea as well as wastes.

The bioeconomy already accounts for 8% of the EU's workforce[8] but modelling has indicated that bio-based industries could create up to 1 million new 'green' jobs by 2030, especially in rural and coastal areas[9]. Nonetheless, the share of the bioeconomy (including energy, food & feed and material applications) in EU GDP is still low, with most employment in low-tech bioeconomy sectors.

1. https://knowledge4policy.ec.europa.eu/publication/updated-bioeconomy-strategy-2018_en#:~:text=The%20update%20proposes%20an%20action,ecological%20boundaries%20of%20the%20bioeconomy
2. https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf
3. https://www.un.org/sustainabledevelopment/
4. https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement
5. https://ec.europa.eu/commission/sites/beta-political/files/political-guidelines-next-commission_en.pdf
6. https://www.un.org/sustainabledevelopment/decade-of-action/

the share of the bioeconomy (including energy, food & feed and material applications) in EU GDP is still low, with most employment in low-tech bioeconomy sectors.

The reasons for this are manifold and range from low acceptance of BBPs among customers, to technical challenges with material property requirements, to political frameworks as well as labelling and standardisation, hindering dynamic developments in the bioeconomy. The contextualisation and basis of bioeconomy policy is overall still weak in Europe (Devaney et al., 2017[10]) Directives that impact on the depth and pace of bioeconomy development in Europe have yet to be adapted and aligned with the objectives of the strategy, whilst current legislation sometimes even hinders the further up-take of BBP (e.g. EU Waste Framework[11]). The BIOVOICES project identifies that

"Bioeconomy is a complex and multi-factoral domain and its wide diffusion depends on the active collaboration of a broad range of stakeholders including industry, researchers, civil society and public authorities."

(BIOVOICES DoA 1.1)

A set of new transformative policies have A set of new transformative policies have been recently launched by the European Commission[12] and are planned to support the Green Deal. These include the new EU Circular Economy Action Plan (CEAP)(2020)[13], which promises to deliver key fixes to legislation in the area of waste generation- and management as well as eco design and obligatory use of secondary materials requirements by 2021/22. The CEAP links with the EC's Bioeconomy Action Plan in two key areas:

- in sustainable production, supporting the bio-based sector in its circularity potential.
- and in the area of food, nutrients and water, where it supports increased shares of extraction of sustainable biomass materials in the EU, building a sustainable circular bioeconomy.

Circular bioeconomy can indeed significantly contribute towards a broad range of EU targets and the UN Sustainable Development Goals (STGs), including climate change mitigation, the circular economy and resource efficiency, environmental protection, creating jobs, growth and revenue. In particular a circular bioeconomy can create and maintain sustainable economic growth, prosperity and high-value employment in rural, coastal and industrial areas where these are greatly needed, reduce fossil carbon dependence and improve the economic and environmental sustainability of primary production and processing industries.

Examples of other transformative legislation are the **Single-use Plastics Directive**[14] , the '**Farm to Fork'** Strategy[15], the **Food 2030 policy**[16] , the new **EU Forest strategy**[17], the **new Common Agricultural Policy**[18] to name a few. This wide-ranging political vision will have significant impacts relating to the wider deployment of the bioeconomy and the increased development of BBPs, contributing to the modernisation of the EU's economy and providing societal, economic and environmental benefits.

Additionally, the EC Council of Regulation has adopted a regulation, strengthening the intellectual property rights office. The first legislative delivery from the Commissions IPR Strategy of May 2011[19]. Here, the EC sets out its new Intellectual Property Rights strategy intended to foster innovation, as well as the growth and competitiveness of the EU economy to include the development of the bio-based sector.

The EC has to date placed emphasis on the development and implementation of bioeconomy strategies at a national level. More recently, the implementation of regionally focused bio-based economies with a local dimension has been encouraged by the EC to support overall sustainability and circularity, including trade- offs, synergies, business models, social innovation and participatory approaches. Insights and actionable knowledge obtained from the BIOVOICES MML events has highlighted the opportunities for regional and mutual co-operation, for example expert clusters which bring all relevant actors together.

All stakeholders have to urgently address global challenges such as climate change, land and ecosystem degradation and a growing population forcing 'demand side', 'supply side', 'multipliers' and the 'supportive environment' to seek new ways of producing and consuming that respect the ecological boundaries of our planet.

7. https://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%20%20007%20-%20Europe%202020%20-%20EN%20version.pdf
8. https://ec.europa.eu/research/bioeconomy/pdf/ec_bioeconomy_actions_2018.pdf
9. https://biconsortium.eu/about/our-vision-strategy/benefits-europe
10. Devaney, L., Henchion, M., Regan, Á., 2017. Good Governance in the Bioeconomy. EuroChoices 16, 41–46. https://doi.org/10.1111/1746-692X.12141
11. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32008L0098
12. https://ec.europa.eu/info/sites/info/files/european-green-deal-communication-annex-roadmap_en.pdf
13. https://ec.europa.eu/environment/circular-economy/pdf/new_circular_economy_action_plan.pdf
14. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L0904&from=EN

Engagement of these stakeholders to participate in systemic change towards a more sustainable global model, promoting growth and development, thus preserving the ecosystem is essential. Opportunities abound for the circular bioeconomy to help meet climate change targets, in a move away from a fossil fuel-based economy.

However, governance of the bioeconomy in Europe currently appears to be fragmented with some of the major policy agendas (e.g. Regional Development, Circular Economy, Climate Neutrality) being insufficiently aligned with the bioeconomy (or vice versa), to support the rapid transition to a biomass-based economy. Stronger alignment and exploitation of complementarities of the bioeconomy with the circular economy would be beneficial to both agendas.

As demonstrated by BIOVOICES MML workshops as well as by a number of studies, awareness, knowledge, and education relating to sustainable production and consumption, are important factors determining behavioural changes that lead to more sustainable lifestyles. Despite the important investments, strategies and action plans implemented at Regional, National and European level, the 2018 revision of the European Bioeconomy Strategy states that "increasing public awareness and knowledge about all areas of the bioeconomy remains a major challenge, which the European Commission aims to address by supporting communication initiatives to raise awareness of the environmental and socio-economic impacts of the bioeconomy and bio-based products, and its benefits, such as more green jobs". Insights from the BIOVOICES project have identified and confirmed that together with awareness and communication, the need for specific education for the bioeconomy is widely recognized as the sector is growing and will require more new employees to keep growing and innovating.

The current and future situation regarding COVID-19 will require special attention by policy makers in terms of the implications of the crisis for sustainable local and regional development, in the context of climate mitigation, resilience and the circular bioeconomy as a means for stimulating a more sustainable resource base in light of the recovery of the European economy.

The recovery from the economic effects of the COVID-19 pandemic could provide an opportunity to promote actionable knowledge gathered by projects such as BIOVOICES to contribute to the creation of a more sustainable way of living, to rethink and redesign a more responsible and fair future together. BIOVIOCES MML events scheduled post pandemic will reflect this change.

It will be very important to ensure that key recommendations from the BIOVOICES project are made widely available to ensure that the economic, environmental and societal benefits of the circular bioeconomy are pushed to the forefront, in what is likely to be the rush to get the world economy back on track. As there is a risk that 'non-essential initiatives' will be forgotten or delayed including major international events such as COP-26[20].

As a positive, the COVID-19 experience has focused attention towards the importance of local and regional economies as this is where the circular bioeconomy seems to operate best, as identified during BIOVOICES MML events.

To maximise these opportunities, BIOVOICES advocates that communication and education should be highlighted to raise awareness of **all bioeconomy sectors**, as well as the environmental and socio-economic benefits. The whole range of target audiences – multi-actors need to be engaged and addressed through tailored activities implemented at local, regional and national level.

The BIOVOICES funded experience has resulted in the generation of important insights about effective communication and engagement with multi-actors, ready for implementation to further embed the circular bioeconomy into EU life and livelihoods.

BIOVOICES insights are laid out in four Policy Briefs, one for each of the four key stakeholder groups (Policy Makers, Research, Business, Civil Society), containing Key Messages, the insights on which the messages are built and case studies captured during the project's MMLs and wider events.

The aim of each Brief is to drive debate and discussion within and between all stakeholder groups to progress and scale up the implementation of the circular bio-based bioeconomy.

15. https://ec.europa.eu/food/sites/food/files/safety/docs/f2f_action-plan_2020_strategy-info_en.pdf
16. https://ec.europa.eu/research/bioeconomy/index.cfm?pg=policy&lib=food2030
17. http://eur-lex.europa.eu/resource.html?uri=cellar:21b27c38-21fb-11e3-8d1c-01aa75ed71a1.0022.01/DOC_1&format=PDF
18. https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/future-cap_en
19. https://ec.europa.eu/transparency/regdoc/rep/1/2011/EN/1-2011-287-EN-F1-1.Pdf
20. https://ukcop26.org/

#3

The Role of the Business Sector

To help drive bio-based innovation

The drive towards establishing a successful circular bio-based economy requires the significant transformation of business models by all companies needing to innovate. A new definition of the value proposition, creation, delivery, and capture, of value is required to embrace bio-based technologies from early innovation to full-scale commercialisation.

Business must fulfil a function and take an active role as a driver of innovation in the continued development of the European circular bio-based economy, investing in healthier, safe, and sustainable products and services. Circular business models for the bioeconomy that ensure a focus on entire lifecycles and efficient use of resources is required. Such business models must generate financial returns. Unfortunately, many companies are still struggling to develop effective business models to generate enough profit to grow.

Developing new business models in an established market field needs an enabling policy and appropriate legislative frameworks (regulatory protection). It is still necessary, with the support of other stakeholders, to push policy makers to implement regulatory and practical change to ensure that the circular bio-based economy can compete effectively in the wider market. Businesses must support calls to European, national, local/regional governments to provide appropriate environments for bio-based businesses to flourish.

Examples of initiatives for consideration are innovation funds, “eco-taxation”, bio-based criteria in public procurement, obligatory design, sustainability standards and labelling requirements in order to support market advantage.

#4

BIOVOICES Key Messages

Recommendations to drive dialogue and debate

INTERNAL FOCUS – SECTOR/ORGANISATION RESPONSIBILITIES

Establish a common and **Honest Language** to describe bio-based products and processes to avoid 'greenwashing' and confusion in order to nurture consumer trust.

Industry/businesses must take responsibility for consumer clarity around **End-of-Life Outcomes** for bio-based products.

Businesses must 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 and Flexible Business Plans** for bio-based products to include all appropriate data to attract longer term investor funding.

Ensure the **Stability, Consistency, Quality and Homogeneity of Feedstock Supplies** to meet market needs of 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.

EXTERNAL FOCUS – INFLUENCING & COLLABORATION

Industry must work with appropriate key stakeholder groups to develop **Supportive Legislation**, **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 targets, regulation and incentives for bio-based start-ups and industries.

Industry can influence the development and implementation of a straightforward and easy to understand **Waste Management and Waste Recovery System** based on clear legislation at national, local and individual business level.

Engage with key stakeholders to develop strong **Local/Regional Networks** for the circular bio-based economy. Support and promote the idea of local circular bioeconomy managers to drive the transition towards more bio-based and circular cities and regions, leading to the development of;

An **Accessible Platform** to enable stakeholders to identify where feedstocks, bio-based products and related resources can be located in each area.

#5

Insights relating to Key Messages

Based on evidence collated from BIOVOICES Mobilisation and Mutual Learning (MML) Events at European, National and Regional levels.

At the start of the project BIOVOICES partners agreed on the twelve challenges that need to be addressed to drive development and market uptake of bio-based products. The challenges can be accessed in Annex on page 16. The challenge or challenges most relevant to each key message and insight are referenced below.

INTERNAL FOCUS – SECTOR/ORGANISATION RESPONSIBILITIES

Establish a common and Honest Language to describe bio-based products and processes to avoid 'greenwashing' and confusion in order to nurture consumer trust.

"There is a lack of transparency in communication around the use of bio-based materials in packaging – Corporate responsibility must kick in and be real."

General Manger- Industry

- Cooperate with all relevant stakeholders to develop awareness and active knowledge of standard bioeconomy 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 bioeconomy and related terms such as sustainability.
- Be transparent in marketing benefits of 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).

"Greenwashing' by suppliers of some bio-based products has resulted in loss of public trust e.g. compostable coffee cups, when the UK recycling infrastructure is not set up to deal with these innovations."

Citizen MML attendee-Civil Society

Challenges – Changes in purchase habits, Increase the adoption of bioeconomy including bio-based products, Realise standardization.

Industry/businesses must take responsibility for clarity around End-of-Life outcomes for bio-based products.

"Knowledge about the real nature of biodegradability and the fact that many products need to be subject to an industrial process to achieve breakdown is not understood at all/most levels."

Collaboration Lead-Industry

- 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 for plastics than in bio-based inputs.
- Comply with Extended Producer Responsibility legislation with regards to packaging.

"Use bio-based to replace fossil fuels in manufacture where it won't change or effect the end-of-life solution."

General Manager- Industry

Challenges – Specify Unique Selling Points, Increase the Adoption, Realise Standardisation.

Businesses must use their own international, national, regional/local connections to increase Cross-Sectoral Cooperation to drive the development of the circular bio-based economy.

"There is a need to work in collaboration with other organisations. Working together and sharing information about what is available to businesses in terms of support."

Education, Project Development Officer

- 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 BBP to ease scale-up process.
- Building companies and retail/brand owners must promote opportunities for using BBP in construction.
- Boost industry engagement with the education sector to ensure there is an appropriately skilled workforce to drive the bio-based sector.

"Access to funding for small horticulture businesses is a challenge, we all need to work together to share information about what information is available to businesses."

Project Development Officer-Education

Challenges – Up-scaling, Improve resources to enhance business cases, B2B users as frontrunners, Boost local development.

Develop Robust, Realistic and Flexible Business Plans for bio-based products to include all appropriate data to attract longer term investor funding.

- 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 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.

"A particular challenge has been the identification of funders with a similar ethical and sustainable focus. Many are driven by profit first and foremost."

Entrepreneur-Research/industry

Challenges – Improve resources to enhance business case, Increase the adoption.

Ensure the Stability, Consistency, Quality and Homogeneity of Feedstock Supplies to meet market needs of your products by promoting territorial cooperation.

"The lack of volume of raw material available for retailers wishing to shift to sustainable packaging is one of the biggest challenges, plus the consistency of that supply."

Lead Scientist-Research

- 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 be competitive with fossil-based equivalents.
- Integrate feedstock providers into the value chain for BBP.

- 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 BBP.

"Cost and availability are the two biggest challenges in manufacture using bio-based materials, plus homogeneity of the supply."

Collaboration Lead-Industry

Challenges – Increase sustainable bio-based feedstock for BBP.

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.

"Co-operation between stakeholders essential to prevent sectors from working in silos which has caused problems and the full value of waste products cannot be seen or achieved."

Manager AD plant-Industry

- 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.
- 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 to develop new skills to better take advantage of bioeconomy-related opportunities.

Challenges – Enhance local bioeconomy strategies and action plans.

EXTERNAL FOCUS – INFLUENCING & COLLABORATION

Industry must work with other key stakeholder groups to develop Supportive Legislation, Common Standards, Labels and Specifications to build trust and confidence in the bio-based market.

- 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.

Challenges – Realise standardisation, Increase the adoption.

Challenge Policy Makers about Price Parity of bio-based and fossil-based products to push for targets, regulation and incentives for bio-based start-ups.

*"The internal challenge in my business is gaining acceptance of the costs involved – there is a **willingness to 'do the right thing' but not at any cost.**"*

Capability Lead Industry/research

- Set clear targets to incentivise the introduction of bio-based products by providing a framework, to provide direction.
- The CO_2 footprint of a new BBP 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 BBP.
- Push for subsidies for bio-based start-ups and scale-ups to lower the purchase cost to citizens of bio-based products.
- Simplify and accelerate licensing procedures to support bio-based start-ups where a large investment in technology and personnel is required.

Challenges – Introduce EU & National incentives, Improve resources to enhance business cases.

Industry can 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.

- There is currently a lack of good waste management systems at all levels. A simplified system is necessary for increased and effective 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-polylactic acid (bio-PLA) packaging at specific points or events.

Challenges – Up-Scaling, Boosting local deployment.

Engage with key stakeholders to implement strong local/regional networks for the circular bioeconomy.

- 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.
- 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.

Challenges – Enhance local bioeconomy strategies and action plans, Boosting local deployment.

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.

"In the UK there is a lack of a central database or organization that can supply information to businesses about sustainable products, for example films to cover food. The issue of a lack of globally recognized standards for sustainable products is a key issue preventing the formation of such a database."
Research/Industry, Entrepreneur

- Create specific places for the purchase of BBP by developing a catalogue of all bio-producers and bio-products from 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.

Challenges – Enhance local bioeconomy strategies and action plans, Boosting local deployment.

#6

Shared Best Practice Actions

Platform links local food producers and city residents

Farmers Mall (Mall Taranesc in Romanian) is a platform developed to link small local producers directly with residents of Romanian cities.
"Currently over 1,300 small agricultural producers use Farmers Mall to sell their products", say the creators of the platform. The aim is to develop an ecosystem by which small rural entrepreneurs can find customers for their products. The platform also provides scope for producers to display certificates relating to animal welfare, eco and bio-certificates.

https://malltaranesc.ro/

Bridge2brands - an innovative format to connect large brands and smaller providers of bio-based solutions

To Improve collaboration between bio-based Industries and Brands, the **Biobridges** project launched the bridge2brands initiative to connect large companies willing to embrace a more sustainable approach in their business and bio-based industries and research players providing innovative solutions to the specific challenges identified by the BrandsMore.
The increased focus on sustainability by consumers and retail partners makes it clear that disposable, hard to recycle everyday items are becoming less acceptable and businesses have to respond accordingly.

In collaboration with **Procter & Gamble (P&G)**, the first bridge2brands call was launched to find innovative and more sustainable solutions for Braun & Oral-B products. The P&G objective is to use the scale of their leadership brands as leverage for a force for good, promoting and enabling more responsible consumption amongst consumers, while also reducing overall waste and the use of virgin materials in their products.

The "call for innovation" was closed on the 5th June 2020. Out of the 52 high quality ideas from 22 countries, 24 were invited to the online international workshop on 23-24 June 2020.
They had the unique opportunity to pitch their ideas to P&G and discuss the advantages, pros and cons of their solutions to address the specific challenges identified, towards potential market dialogue and business partnership with the brand. Collaboration among the participants has been encouraged during the event.

https://www.biobridges-project.eu/news-events/news/p-g-and-biobridges-call-for-innovative-solutions/urlen

Smart Solutions in Short Food Supply Chains

SMARTCHAIN supports the development of collaborative short food supply chains and promotes a more favourable framework for sustainable, local, healthier and ethically

produced food in Europe. The project will engage key stakeholders involved in short food supply chains, re-connect farmers and consumers and stimulate co-creation through citizen involvement. Nine Innovation and Collaboration Hubs will be established in France (HUB Manager: ACTIA), Germany (UHOH), Greece (UOC), Hungary (KIS), Italy (UNIBO), Netherlands (AMP), Serbia (UOB), Spain (AZTI) and Switzerland (WBF).

"The establishment of the national innovation hubs will lead to a permanent association of stakeholders at national level, working on the improvement of short food supply efficiency for the economic growth of the sector for the benefits of European farmers and citizens."

https://www.smartchain-h2020.eu

DanuBioValNet, Danube

The drivers for this project are the creation of a transnational series of clusters that foster bio-economy and eco-innovations to strengthen regional economies. The aim is to develop new methods, strategies and tools to connect Danube actors, for example SMEs, farmers, universities, research institutes, to enhance bio-based industry. The project is focused on three bio-based value chains with high potential, Phytopharma, Eco-construction and bio-based packaging (Bioplastic). A long-term, industry driven roadmap will be produced to enhance collaboration and create new bio-based value chains in the Danube Region.

The partners involved in this project have pursued a strong strategic orientation that goes beyond the immediate and medium-term economic objective of strengthening the regional economy. The strategic goal is to establish cross border partnerships, particularly in developing regions, with the help of powerful cluster organisations. Project benefits will be sustained with the enabling and facilitation of strategic investments, especially in the bio industries. This will be achieved mainly by supporting newly emerging or transforming existing value-added chains, which are increasingly being transnationally established and further developed as a result of the increasing internationalisation of value-added processes.

Map of The National Network of Clusters in the Agri-food sector, Romania

http://www.interreg-danube.eu/approved-projects/danubiovalnet/section/phytopharma-value-chain

http://www.interreg-danube.eu/approved-projects/danubiovalnet/section/eco-construction-value-chain

http://www.interreg-danube.eu/approved-projects/danubiovalnet/section/bio-based-packaging-value-chain

Clusters and other business-oriented initiatives working together

BIOVOICES extensively promoted collaboration with regional clusters and other business-oriented initiatives, initiatives, for example with chambers of commerce and industry associations, to facilitate the involvement of the associations, to facilitate the involvement of the business community. This approach led to the organisation of events designed to address specific challenges that are relevant and motivating for industry. An event in the Apulia region of Italy was run by BIOVOICES in collaboration with Cluster SPRING and in the Piedmont region in collaboration with the local Chamber of Commerce.

Collaboration between academia, industry and the regions to train a skilled workforce more responsive to market needs

To respond to demand from industry for a skilled workforce to respond to bioeconomy-related challenges,

several projects and experiments are taking place in Europe. Masters programmes such as BIOCIRCE in Italy, a collaboration between several universities and businesses as well as the Community of Practice in Bioeconomy Education (CoP Bio-Edu), the BIC education working group, the European Bioeconomy University are all focusing on providing a responsive educational pathway for the development of the bioeconomy.Chamber of Commerce.

http://masterbiocirce.com

Business backs development of bio-based innovation in Castilla La Mancha, Spain

A group of businesses from the community of Castilla La Mancha collaborated to implement a comprehensive plan for the development of bioeconomy by public procurement strategy, this initiative resulted in the setting up of the CLAMBER biorefinery and includes the development of scientific projects in various areas utilising agri-food residues. The aim is to demonstrate techno-economic and environmental viability of an integrated and innovative biorefinery for the transformation of the organic fraction of municipal solid waste (MSW) into new marketable bioproducts, chemical building blocks, biopolymers and additives.

https://www.urbiofin.eu/partners/iriaf-clamber-biorefinery/

https://clamber.castillalamancha.es/

Central Finland Cluster

The cluster began operating in 1992 and is expanding with the setup of new bio-based industries that complement the traditional bioenergy, pulp and paper sector and attract both private and public funding. Innovative products include biopolymers, biochemicals and enzymes. These actors combined in a cluster are a key asset. The following specific groups play a key role:

- Entrepreneurs - the presence of entrepreneurial culture plays a pivotal role in driving clusters towards successful development. Clusters usually leverage on the presence and active participation of various individuals with an entrepreneurial spirit who are risk-takers and willing to try new ideas. The level of entrepreneurial culture can be seen as a critical success factor whereas low levels of entrepreneurship would be a cause for concern.

- Policymakers - political leaders who are willing to support the development of the bioeconomy, providing governance, institutional structures and financial support.

- Knowledge institutes - organisations that provide technical know-how and innovation for the development of bio-based products.

Points to highlight are:

- The successful transition from forest and energy products to innovative and competitive bio-based products.

- Market integration involves the engagement of local companies of all sizes and the formation of regionaltargets.

- Appropriate funding advice is provided. A central coordinated structure for investigating funding opportunities from mixed sources has been developed to inform and update entrepreneurs and R&D actors and provides support during the funding application procedure.

https://berst.databank.nl/report/gp%20central%20finland%20(primary%20biomass,%20paper%20and%20pulp,%20bioenergy).pdf

Tractor manufacturer in Romania launches three new tractor models for family farms.

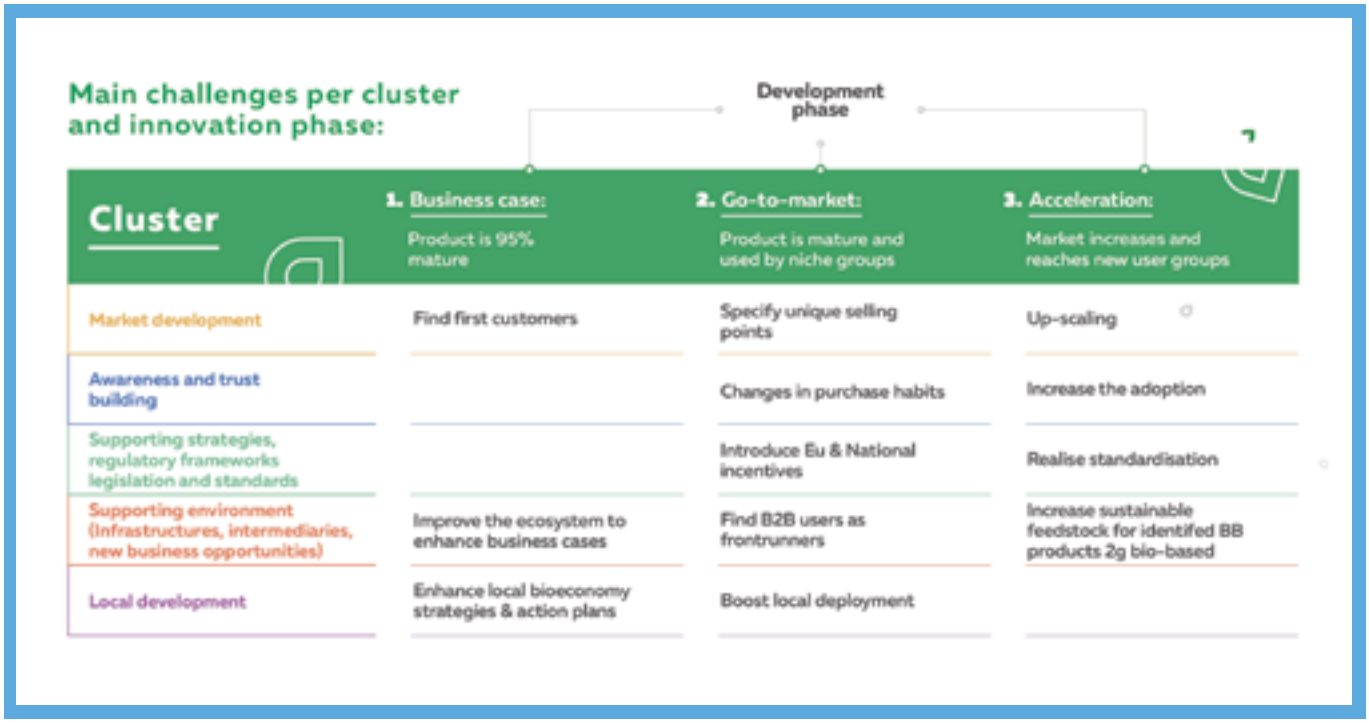
"The new IRUM tractors are intended especially for family farms. The initiative to develop these models contributes to supporting the sustainable development of Romanian agriculture. The priority of the Food and Agriculture Organization within the UN, but also the one assumed by the Ministry of Agriculture is the development of family farms, and our contribution to support this initiative is represented by the production of Romanian tractors, at fair prices, equipped with great care for the environment. ", Says Mircea Oltean, CEO of IRUM Reghin.

The new IRUM tractors will be equipped with pollution stage 5 engines. They will also have the power shift option available, which makes the machine much easier to handle. The tractors will have useful accessories for Romanian farmers. They can be used with maximum efficiency, including in the field of vegetables, solariums, viticulture, fruit growing or in the field. The machines can also be used for works such as mowing or raking.

https://www.irum.ro/home

Annex

The 12 Challenges identified by BIOVOICES to contribute to the market uptake of BBP



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