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D3.3.1 REPORT ON THE UPTAKE OF BIOECO-UP PROJECT OUTPUTS AND DELIVERABLES BY BIOEAST INITIATIVE

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Content

A. MAIN GOAL OF THE REPORT

Since its establishment, the BIOEAST Initiative has been supported by a range of projects contributing to the achievement of its strategic objectives. This report aims to demonstrate how the results of the INTERREG CE BIOECO-UP project have contributed to these objectives, while also identifying the synergies between the two frameworks.

A key priority during the implementation of BIOECO-UP was to ensure that its outcomes extend beyond the immediate project consortium. Particular emphasis was placed on enabling a broader group of BIOEAST countries to benefit from the knowledge, tools, and validated approaches developed within the project.

To achieve this, a comprehensive capitalisation strategy was implemented. This included targeted presentations, workshops, newsletters, webinars, and both online and in-person dissemination events. Through these activities, the project ensured effective knowledge transfer, stakeholder engagement, and the wider uptake of results across the BIOEAST macro-region.

B. INTRODUCTION OF BIOEAST INITIATIVE

The BIOEAST Initiative (Central and Eastern European Initiative for Knowledge-based Agriculture, Aquaculture and Forestry in the Bioeconomy) is a strategic macro-regional cooperation framework launched in 2016 that brings together countries from Central and Eastern Europe (CEE) to advance sustainable bioeconomy development. Its core mission is to reduce the innovation gap between Western and Eastern Europe by strengthening research, innovation, and strategical policy coordination in biomass producing and manufacturing sectors such as agriculture, forestry, food, textile, industrial biotechnology just to mention a few. BIOEAST promotes the transition toward a circular and knowledge-based bioeconomy by fostering collaboration among governments, research institutions, and stakeholders, while aligning regional priorities with European Union strategies such as the EU Bioeconomy Strategy and the Green Deal.

1. Initial objectives (around 2016)

At its inception, the initiative focused on enhancing knowledge-based agriculture, forestry, and aquaculture. Participating countries, including Hungary, aimed to improve their research and innovation capacities, increase the added value of biomass-based activities, and strengthen their representation in EU research and innovation policies. Reducing the innovation gap between Western and Eastern Europe was also a key priority.

2. Evolution of objectives (2016–2026)

Over time, the scope of the initiative broadened significantly. Beyond its original broad bioeconomy focus, it increasingly addressed the thematic approaches, including agroecology, forestry, freshwater based bioeconomy, bioenergy, biotechnology, circular economy solutions, food system innovation, and sustainable rural development. In response to climate change and the energy transition, new priorities emerged, such as replacing fossil-based systems with bio-based alternatives. The initiative also placed stronger emphasis on policy coordination, including the development of macro-regional strategies, national action plans and joint research agendas.

3. Implementation mechanisms

The BIOEAST Initiative implements its goals through several instruments. A key tool is the Strategic Research and Innovation Agenda (SRIA), which defines regional priorities. It also supports the development of national BIOEAST HUBs to enable national bioeconomy strategies and action plans, promotes participation in international research collaborations (e.g., Horizon Europe projects), and provides a platform for knowledge exchange and policy dialogue. Its network-based structure—bringing together ministries, research institutions, and industry stakeholders—is central to its operation.

4. Current status (2026)

Today, the BIOEAST Initiative has become a stable and recognized regional cooperation framework, increasingly integrated into EU bioeconomy policy. Some countries from the region have adopted national strategies, and participation in EU-funded research has grown. However, challenges remain, including limited funding, disparities in innovation capacity, and the need to strengthen market uptake of bio-based solutions.

5. Future outlook

Looking ahead, the initiative is expected to place greater emphasis on practical implementation and market-ready bio-based innovations. Key areas will include industrial biotechnology, sustainable food systems, and rural innovation. Strengthening global competitiveness and enhancing the contribution of the bioeconomy to climate neutrality will remain central objectives.

The BIOEAST Initiative is closely aligned with the European Union’s Bioeconomy Strategy, serving as a regional platform that reinforces and operationalizes EU-level objectives in Central and Eastern Europe with special attention to sustainable biomass production, market uptake of bio-based innovations and circular value chains.

BIOEAST translates these priorities into region-specific actions that reflect the unique agricultural, environmental, and socio-economic conditions of CEE countries. At the same time, it helps address regional disparities by strengthening capacities, improving governance, and fostering collaboration among stakeholders. In turn, the EU strategy benefits from BIOEAST by gaining a coordinated regional voice that ensures CEE perspectives are better integrated into European policymaking, creating a mutually reinforcing relationship.

A key feature of BIOEAST is its Strategic Research and Innovation Agenda (SRIA), which identifies priority areas including sustainable biomass production, food systems, rural development, and circular bio-based solutions. The initiative emphasizes capacity building, knowledge transfer, and improved governance to enable CEE countries to better utilize their biomass potential and natural resources in a sustainable and competitive way. Importantly, BIOEAST also serves as a platform for policy alignment and joint representation of CEE interests at the EU level.

C. WEBINAR ORGANISED BY UNIVERSITY OF BOLOGNA ON POLICY EVALUATION TOOL

On 23rd February 2026 with the involvement of renowned Italian bioeconomy expert Professor Davide Viaggi, University of Bologna demonstrated an effective methodology to ministerial policy makers for evaluating bioeconomy strategies.

1. Context and Rationale

The true impact of macro-level policy strategies becomes visible only over time, through the economic transformations, structural adjustments, and societal outcomes they generate. As a result, policy evaluation is inherently retrospective, particularly in complex environments shaped by interconnected forces such as climate change, global market dynamics, technological innovation, and emerging competitors. The bioeconomy is among the sectors most influenced by these dynamics.

2. The Bioeconomy as a Cross-Cutting System

The bioeconomy is not a single industry, but a cross-sectoral framework that links traditional sectors to create a sustainable, circular, and regenerative economic system. It encompasses activities based on renewable biological resources for the production of food, materials, and energy. This systemic nature makes bioeconomy strategies difficult to assess, as they:

- span multiple sectors,
- operate over long time horizons,

- pursue environmental, economic, and social objectives simultaneously.

3. The Challenge of Policy Evaluation

A key policy question is whether robust tools exist to assess the effectiveness of adopted strategies in an objective and systematic way. Evidence from international practice confirms that such tools are available.

Organizations such as the OECD and the European Union apply established evaluation frameworks to assess:

- effectiveness,
- efficiency,
- relevance,
- coherence, and
- long-term sustainability.

These frameworks enable policymakers to evaluate not only whether objectives were achieved, but also how policies perform under real-world conditions.

Evaluation as a Strategic Instrument

Policy evaluation should be understood as a strategic function rather than a purely technical exercise. Effective evaluation systems:

- strengthen accountability and transparency,
- assess policy coherence and incentive compatibility,
- support technological effectiveness and innovation efficiency,
- evaluate the fairness of resource allocation.

In the bioeconomy, evaluation must additionally capture:

- cross-sectoral impacts,
- innovation dynamics,
- sustainability performance,
- long-term systemic transformation.

This requires integrated, systems-based analytical approaches capable of addressing complex interactions within the broader economy.

4. Main policy conclusions

The effective development of the bioeconomy requires a system-level policy shift that goes beyond sectoral coordination and short-term economic logic. The Italian experience shows that aligning bioeconomy strategies with the Common Agricultural Policy (CAP) is inherently difficult due to tensions between economic efficiency and value-based social sustainability. Therefore, policy frameworks must explicitly integrate cultural and societal dimensions, supporting value-driven enterprises that operate with a long-term perspective.

At the same time, structural barriers—such as limited innovation financing, insufficient cooperation between large actors and public administration, and the cross-sectoral ("metasector") nature of the bioeconomy—hinder coherent policy design and implementation. To overcome these challenges, policies should prioritize:

- Decentralized, place-based approaches, where regional and community-level initiatives can more effectively catalyze change;
- Long-term investment frameworks and mindset shifts to enable bio-based innovation;
- Integrated rural development models, especially in marginal areas, where bioeconomy activities must be complemented by services such as tourism to ensure economic viability.
- Overall, the key conclusion is that bioeconomy policy must evolve into a coordinated, cross-sectoral, and socially embedded governance model, combining economic, environmental, and cultural objectives, while empowering local actors and enabling diversified income structures.

5. Policy Implications and Way Forward

Strategy-making is not an end in itself. Its value lies in the ability to measure, understand, and adapt to the changes it generates. Embedding continuous learning and evaluation into policymaking processes is essential.

The future success of bioeconomy strategies will depend on how effectively this adaptive, evidence-based approach is institutionalized, ensuring that policies remain responsive, coherent, and impactful over time.

D. TRANSMISSION OF BIOECO-UP POLICY RESULTS TO BIOEAST BOARD

1. The general role of the BIOEAST Board

The BIOEAST Board is composed of governmental representatives and thematic working group leaders from the BIOEAST member countries. These are typically senior officials or delegates from relevant ministries, most often:

- Ministries of Agriculture
- Ministries of Innovation / Technology
- Ministries of Environment or Sustainable Development
- Occasionally ministries responsible for economy or rural development

The thematic working groups collect renowned researchers engaged in various bioeconomy topics like forestry, agroecology, food systems, advanced bio-based materials or bioenergy.

The Board members act as national coordinators of bioeconomy policy and ensure alignment between national strategies and BIOEAST macro-regional priorities. They contribute to shaping the Strategic Research and Innovation Agenda (SRIA) of BIOEAST

The BIOEAST Board is decision-making body, where each member country is represented by designated senior officials responsible for advancing the bioeconomy agenda in their own country and works for the goals of BIOEAST Initiative.

In this way the transmission of BIOECO-UP project results to the BIOEAST Board is of strategic importance for several interconnected policy and implementation reasons.

First, it ensures policy uptake and continuity. While project-level outcomes often remain at the level of pilot actions or analytical insights, the BIOEAST Board operates at a higher strategic and governmental level. Transferring results allows these insights to inform national and macro-regional policy agendas, increasing the likelihood that successful approaches are embedded into long-term bioeconomy strategies and CAP-related interventions.

Second, it strengthens evidence-based policymaking. BIOECO-UP has generated practical knowledge on business development, stakeholder engagement, and the mobilisation of bio-based value chains. Feeding these results into the BIOEAST governance structure enables policymakers to rely on tested experiences rather than abstract concepts, thereby improving the design and targeting of policy instruments.

Third, it enhances regional coordination and coherence across Central and Eastern Europe. The BIOEAST Board brings together representatives from multiple countries, providing a

platform where lessons learned can be shared, compared, and scaled. This is particularly important in addressing common structural challenges in the region, such as fragmented innovation systems or underutilised biomass resources.

Fourth, it supports the alignment of EU-level strategies with regional needs, including the Common Agricultural Policy and the EU Bioeconomy Strategy. By channeling BIOECO-UP findings into BIOEAST discussions, there is a greater opportunity to tailor European frameworks to the specific socio-economic and environmental conditions of CEE countries.

Finally, this transmission fosters scaling and replication of successful solutions. The BIOEAST Board can act as a multiplier, promoting the uptake of proven models, facilitating cross-border collaboration, and attracting further investment into bioeconomy sectors.

In sum, connecting BIOECO-UP results with the BIOEAST Board transforms project-level knowledge into strategic impact—bridging the gap between innovation, policy, and large-scale implementation in the European bioeconomy.

2. Summary of the Board meeting

The BIOECO-UP dissemination event held on 26 February 2026 aimed to present key project outputs to BIOEAST Board members and Thematic Working Group (TWG) leaders. The primary focus was on demonstrating bioeconomy potential analysis conducted in 2023 and the BIOEAST-focused bioeconomy strategy and action plan finalized in December 2025. Participant feedback was solicited to inform the finalization process of the BIOECO-UP strategy and action plan.

2.1. Introduction to BIOECO-UP project – Rita Soós, Hungarian Ministry of Agriculture

The project leader provided a concise overview of the BIOECO-UP project, highlighting its main target groups and the supporting toolkit. The key focus areas include:

- The necessity of building bio-based value chains and accelerating value creation at both national and international levels.
- The importance of increasing consumer awareness of bio-based solutions and empowering citizens to become active participants in the circular bioeconomy.
- The need to strengthen policy recognition of biomass as a strategic raw material and of bio-based solutions as key drivers of the green transition.

2.2. Presentation Activity 1.1: Bioeconomy potential analysis in BIOECO-UP countries - Matej Fatur, University of Ljubljana

The key objective of this activity was to conduct a Comprehensive Assessment of Biomass Availability and Utilization in BIOECO-UP Countries

This assessment examined biomass availability and utilization across the BIOECO-UP countries—Austria, Czech Republic, Croatia, Hungary, Italy, Poland, Slovakia, and Slovenia—with a focus on identifying opportunities to enhance circularity and value creation within the bioeconomy as well as building cross-sectoral and cross-border value chains. .

2.2.1. Methodological Approach

The analysis integrates national-level reports covering the agricultural, forestry, and aquatic sectors, complemented by statistical data from Eurostat and the European Commission's Joint Research Centre. A theoretical framework based on the Triple Helix model—linking entrepreneurs, policymakers, and knowledge institutions—was applied to evaluate systemic interactions and innovation capacity. The study specifically targets by-products and residual biomass streams, including at least five sources from agriculture and food processing and two from forestry.

2.2.2. Key Findings

- **Biomass Availability and Utilization Gaps:** Across the assessed countries, substantial volumes of biomass—particularly agricultural and food processing residues—remain underutilized. Despite their potential for higher-value applications, these resources are often confined to low-value uses or remain unused.
- **Structural Weakness: Limited Value Chain Integration:** A major constraint is the weak cooperation among stakeholders along biomass value chains. Fragmentation between producers, processors, and end-users limits the development of efficient circular systems and reduces overall economic and environmental benefits.
- **Untapped Potential for Circular and Cascading Use:** There is significant potential to improve both material and energy efficiency by closing biomass loops and applying cascading use principles. This would enable multiple value-adding stages, extending the lifecycle and economic return of biomass resources.
- **Cooperation Scenarios and System-Level Impact:** Three development pathways were identified, reflecting increasing levels of organizational complexity and impact:
    - **Scenario A - Closing biomass loops within production units** Biomass is reused within individual production units. While relatively easy to implement, this model generates limited multiplier effects.

- **Scenario B – Industrial symbiosis with cross-sectoral cooperation:** Cross-sectoral collaboration enables the exchange of by-products between industries, improving resource efficiency and creating additional value streams.
- **Scenario C – Bioeconomy clusters with network structures** Network-based cooperation among multiple actors fosters innovation, scalability, and systemic impact, representing the highest potential for sustainable bioeconomy development.

2.2.3. Conclusion

The transition toward a more circular bioeconomy in the BIOECO-UP region depends on strengthening cooperation across sectors and borders. Advancing from isolated biomass use toward integrated, network-based systems will be critical to unlocking the full economic and environmental potential of available biomass resources.

2.3. Presentation Activity 3.1: Analysis of existing CAP policy measures in BIOECO-UP countries – Karin Heinschink, Federal Institute of Agricultural Economics (BAB), Austria

In the BIOECO-UP project, the term "bioeconomy" is understood as "circular bioeconomy". The BIOECO-UP region spans 8 countries (AT, CZ, HR, HU, IT, PL, SI, SK). This report summarises results from BIOECO-UP activity A.3.1 "Analysing circular bioeconomy measures" as presented to BIOEAST Board members and Thematic Working Group leaders (online meeting, 27.02.2026), specifically bioeconomy policy workshop and bioeconomy measures in selected policy frameworks. [BIOECO-UP presentation A.3.3]

2.3.1. Policy workshop [BIOECO-UP deliverable D.3.1.3]

The policy workshop was organised as an online transnational event in February 2024 with 57 participants. The workshop was intended for policy makers, advisors and others interested in Common Agricultural Policy (CAP) and bioeconomy in the BIOECO-UP region. The event aimed to facilitate an exchange of expertise and information among policy-makers. The presenters and panellists were CAP and bioeconomy experts from the BIOECO-UP countries and the EU level with experience in the policy programming process. The panel discussed questions such as: How does the CAP strategic plan of your country address the bioeconomy? What types of CAP interventions are related to the topic of bioeconomy? What types of calls is your country considering (e.g. supporting cooperation, innovation, investment)? Who would be the target groups/beneficiaries of these calls?

Some general findings as expressed by presenters and panellists: In absence of a common understanding of the concept of (circular) bioeconomy, it is more difficult to communicate the topic and put a focus on who and what to involve in policy making. Bioeconomy may

contribute to solving societal problems (e.g. environmental and resource challenges), but it also has limitations (e.g. resource availability, storability, how to find suppliers). Bioeconomy may be seen as an opportunity (e.g. for individual businesses, economy as a whole). For adding value, it is recommended to involve more actors in value chains, from primary production to processing sidestreams and marketing novel products and services. All participants emphasised that cooperation is important (e.g. along the value chain, across sectors, across countries). Ideally, policy is based on national needs and potentials, hence policies defined at the superordinate level require some flexibility. In the BIOECO-UP countries, the bioeconomy is developed to different stages. The panellists noted that it is reasonable to coordinate activities and policies since EU countries have integrated markets. It helps bioeconomy development if key positions in managing authorities remain the same in the longer run as experience beyond individual programming periods is very precious (e.g. what worked in the past, what did not, and why?). There is a need for coordinating and integrating experience and knowledge at the policy-making level (e.g. through involvement of practitioners, businesses, researchers, education, consumers) and for developing coordination mechanisms and capacities for the bioeconomy (e.g. value chains, sectors, transnational action). Policy makers are interested in sharing knowledge and experiences transnationally. Financing options for bioeconomy measures can be available in different policy frameworks, including the Common Agricultural Policy (CAP). BIOECO-UP countries are already making use of CAP funding for bioeconomy development.

2.3.2. Bioeconomy measures in selected policy frameworks [BIOECO-UP deliverable D.3.1.3, report A.3.2]

Not all European countries have so far implemented dedicated bioeconomy strategies, but bioeconomy-relevant measures are defined in different policy frameworks. Activity A.3.1 referred to selected policy frameworks: CAP 2023-2027 as well as bioeconomy strategies applicable at the national and EU-level.

I. Agriculture and food are core bioeconomy sectors in the EU, accounting for e.g. 77% of employment and 63% of value added in the EU-27 in 2022 [EC-JRC, 2025]. Hence, activity A.3.1 placed an emphasis on the CAP. Policy experts selected from **CAP 2023-2027 strategic plans** [EC-DGAgri, 2024] of BIOECO-UP countries 69 interventions which they found particularly suitable for developing the bioeconomy. Most of these measures address investments, cooperation, knowledge exchange and dissemination. [BIOECO-UP deliverable D.3.1.3: chapter 3.1]

II. The **Austrian bioeconomy strategy 2019** is linked to an action plan consisting of 113 measures clustered in 11 topics. The topics are: science, research and innovation; sustainable consumption; agriculture; land use; forestry; circular economy; technology development; material use; bioenergy; awareness raising; cross-cutting issues. Out of 113 measures, 14 are integrated in the Austrian CAP strategic plan 2023-2027. [BMNT-

BMBWF-BMVIT, 2019; BMK-BML-BMBWF, 2024; BIOECO-UP deliverable D.3.1.3: chapter 3.2]

III. The **Italian bioeconomy strategy 2019** (BIT II) and action plan includes 60 measures in 4 main actions. The main actions deal with the regulatory framework, investments at the local level, circular and regenerative approaches and integration between sectors. [CNBBSV, 2021; BIOECO-UP deliverable D.3.1.3: chapter 3.3 – contributed by Fabrizio Cavani, personal communication, 25.03.2024]

IV. The new **EU bioeconomy strategy 2025** defines 31 key actions grouped into 5 topics dealing with innovation and investments, markets for materials and technologies, sustainably sourced biomass, partnerships and opportunities, cooperation. [EC, 2025; BIOECO-UP report A.3.2: annex A.6]

V. An overview of **dedicated national bioeconomy strategies** and actions in Europe shows that out of 15 listed actions, 3 were present in all countries, namely: investments; cascade use – circularity – resource efficiency; communication and awareness raising. [EC-KCB, 2025; BIOECO-UP report A.3.2: annex A.7]

2.4. Presentation Activity 3.2: BIOEAST Bioeconomy Strategy and Action Plan - Piotr Jurga, Institute of Soil Science and Plant Cultivation (IUNG-PIB), Poland

During the BIOEAST-oriented dissemination meeting, IUNG-PIB presented the main outcomes of Activity 3.2, focused on the development of a Strategic Orientation and Action Plan for implementing bioeconomy measures in agriculture and related sectors.

The presentation aimed to support dialogue with the BIOEAST Board and Thematic Working Groups by translating project results into actionable policy directions relevant for the future Common Agricultural Policy (CAP) and national bioeconomy strategies.

2.4.1. The core results presented included:

- a concise synthesis report of approximately 60 pages,
- an extended analytical version of approximately 350 pages,
- thematic studies and interim reports,
- Delphi consultations and expert inputs from over 30 specialists,
- country-specific and macro-regional recommendations for six countries: Czech Republic, Croatia, Hungary, Poland, Slovakia and Slovenia,
- a package of around 100 proposed policy measures developed by the team and adapted by national partners.

2.4.2. A strong emphasis was placed on the methodological approach, which combined:

- desk research,
- stakeholder consultations through the Delphi process,
- prioritisation matrices,
- SWOT/TOWS analysis,
- PESTEL analysis,
- and, where relevant, social network analysis.

This helped ensure that the proposed measures are both evidence-based and adaptable to national contexts.

2.4.3. The presentation highlighted several key strategic opportunities for the BIOEAST region, in particular:

- mainstreaming the bioeconomy within the CAP post-2027 as a horizontal priority,
- broadening eco-schemes and strengthening AKIS,
- building regional circular value chains,
- mobilising blended finance and EU funding synergies,
- reinforcing multi-level governance and monitoring systems.

2.4.4. A central element of the dissemination was the introduction of the Action Plan structured around six thematic areas:

- governance and AKIS,
- research, innovation and digitalisation,
- climate and environmental sustainability,
- sustainable agriculture, food and forestry value chains,
- rural communities and regional bioeconomy hubs,
- knowledge and skills for farmers and advisors.

2.4.5. The proposed policy measures covered, among others:

- agricultural biogas and biomethane solutions with nutrient recycling,
- regional biorefineries and fermentation pilots for bio-based polymers and green solvents,
- regenerative agriculture and on-farm climate adaptation technologies,
- robotics, precision farming, and monitoring systems,
- biological crop protection and integration of bioproducts into agricultural practice.

2.4.6. The Action Plan translates the EU Agri-Food Vision 2040 into concrete and implementable policy measures. These include:

- outcome-based monitoring and reporting systems,
- strengthened advisory and knowledge systems,
- integrated financing portfolios,
- market creation mechanisms,
- policy laboratories and regulatory sandboxes,
- place-based and transnational coordination frameworks.

Importantly, the presentation stressed that the bioeconomy should not be treated as a separate policy domain, but rather as a cross-cutting pathway for delivering CAP objectives related to:

- competitiveness,
- resilience,
- sustainability,
- rural development.

2.4.7. The main implementation recommendations shared with the BIOEAST community included:

- the establishment of national bioeconomy coordination mechanisms,
- the adoption of measurable indicators,
- stronger use of synergies between CAP and other EU funding instruments,
- increased support for education and skills,
- promotion of market uptake through public procurement and certification,
- the use of adaptive policy learning approaches.

2.4.8. Conclusion

Overall, the dissemination contributed to strengthening policy dialogue within the BIOEAST community and offered a structured and practical foundation for integrating circular bioeconomy measures into future CAP programming and broader national strategic frameworks.

2.5. Discussion and Key Conclusions

2.5.1. Communication Strategy (Ákos Kristóf, Ministry of Agriculture of Hungary):

Communication was identified as a significant challenge, even when supported by strong results. It was recommended to highlight more "provocative" or critical findings in order to stimulate meaningful dialogue with CAP policymakers. Starting with bold, thought-provoking conclusions—rather than detailed methodological explanations—can be more effective in capturing the attention of decision-makers.

2.5.2. Value Proposition (Stelios Rozakis, IUNG-PIB Expert):

The strategy provides win-win recommendations that can enhance farmers' income by enabling the production of higher-value products while utilizing waste streams. These recommendations are well aligned with those of the food sector, supporting the development of industrial symbiosis and cluster-based approaches. They also strengthen connections between farmers and consumers, embed territorial identity into products, and improve linkages across the supply chain. Overall, the approach is beneficial for primary producers while remaining consistent with CAP objectives.

2.5.3. Country-Level Communication (Barna Kovács, BIOEAST):

There is a clear need for a concise, one-page policy brief targeted at high-level decision-makers, such as state secretaries and directors. This document should focus on key policy questions that the project's results can address, rather than presenting detailed methodologies or comprehensive findings. It should clearly outline challenges and a forward-looking vision to enable decision-makers to engage ("buy in") before requesting further detail. A "living document" approach was also proposed, whereby the project delivers a core methodology and baseline dataset that can be adapted by individual countries to their specific contexts. The added value lies in the transferability of both the methodology and the key data, allowing continued application across countries.

E. FINAL CLOSING EVENT

The final closing event of the BIOECO-UP project was held in Budapest on 13 March 2026, hosted by the Hungarian Academy of Sciences. The choice of venue reflects the growing strategic importance of the bioeconomy in driving the sustainability transition across Europe.

The conference was dedicated to advancing bioeconomy policy in Central and Eastern Europe (CEE), fostering business opportunities, and strengthening stakeholder engagement in the transition towards a resource-efficient and circular economy. It brought together a diverse audience, including policymakers, researchers, bio-based industry representatives,

professional organisations, farmers' associations and chambers, project partners and associated partners, as well as marketing and innovation specialists.

1. Policy Background and Strategic Relevance

The significance of the BIOECO-UP programme is closely linked to the long-term evolution of the European Union's agricultural and bioeconomy policy frameworks. Over recent decades, the Common Agricultural Policy (CAP) has gradually shifted from a model primarily focused on production and income support towards a more comprehensive framework that increasingly integrates environmental sustainability, climate action, and the socio-economic vitality of rural areas.

This transformation is particularly relevant for CEE Member States, where agriculture and biomass-based sectors continue to play a structurally important role. The ongoing reform and implementation of the CAP therefore represent a critical lever in shaping the future of the European bioeconomy in these regions.

In parallel, the updated EU Bioeconomy Strategy provides new opportunities to better align agricultural policy instruments with bio-based value creation, sustainability objectives, and rural development priorities. However, a key policy challenge remains: how to more effectively mobilise CAP measures to translate circular bioeconomy ambitions into concrete market outcomes, investments, and innovation.

2. Conference Focus and Key Policy Questions

Against this backdrop, the BIOECO-UP final conference explored the role of the CAP as a strategic bridge between agricultural production and bio-based markets. The discussions focused on several core policy questions:

- What added value can CAP interventions deliver to the BIOEAST region?
- How can lessons from past and ongoing CAP-funded initiatives be better utilised?
- In what ways can farmers, businesses, policymakers, and citizens be more effectively engaged to unlock bioeconomy-related investments and innovation?

3. Project Insights and Policy Learning

Over the three-year implementation period of the BIOECO-UP project, participants generated valuable insights into these challenges. Particular emphasis was placed on:

- regional experiences in bio-based business development,
- stakeholder engagement mechanisms, and
- policymaking practices within the CAP framework.

These lessons provided a strong evidence base for the final conference discussions and policy reflections.

4. Outlook and Future Directions

The closing conference aimed to connect the project's accumulated knowledge with future opportunities and emerging trends in the bioeconomy. By bringing together key stakeholders from across sectors and governance levels, the event contributed to shaping a shared vision for sustainable development and the strengthened role of the bioeconomy in the CEE region.

5. Short summaries of panels

5.1. Deputy State Secretary of Ministry of Agriculture for Hungary welcome speech

Deputy State Secretary Dr. Balázs Szabó highlighted in his speech the timeliness of bioeconomy that is the exploration of the opportunities and challenges of the bio-based sectors in the Central European region with special attention to ecological boundaries. The transition to a successful bioeconomy requires a clear understanding of development pathways and the coordinated roles of policymakers, businesses, and the farming community. It also depends on effectively leveraging trends, strategies, and development tools identified at the European Union level.

Biomass has historically been a foundational resource for human societies, supporting food systems, materials, energy, and shelter across civilizations. Today, its importance is being redefined in the context of modern challenges. We are living in an era of interconnected "poly-crises," including climate change, resource scarcity, and geopolitical instability. In this context, biomass is emerging as a strategic asset for strengthening resilience and advancing the strategic autonomy of both nations and the European Union.

European agriculture stands at the centre of this transformation but faces multiple, overlapping challenges: adapting to climate change, meeting sustainability requirements, maintaining economic competitiveness, and ensuring generational renewal. These issues are too complex to be solved through traditional approaches alone.

A shift toward knowledge-based, data-driven, and collaborative solutions is essential. This includes innovation in farming practices, integration of digital technologies, stronger value chains, and supportive policy frameworks that align environmental, economic, and social objectives. The success of the bioeconomy will depend on the ability of all stakeholders to work together in a coordinated and forward-looking manner.

Strategic planning on the bioeconomy has been underway at EU level for years, which the agricultural ministries of Central and Eastern European countries have been following with great interest and are shaping themselves as well, through the BIOEAST Initiative. The changes in this area oblige Central and Eastern European policymakers as well as business decision-makers to make decisions at both macro and micro levels.

The EU bioeconomy is a major economic force, generating €863 billion in value added and 17.1 million jobs in 2023 (5% of GDP, 8% of employment). It spans sectors from agriculture and forestry to bio-based industries like food, chemicals, and energy. Central and Eastern Europe provides over one-third of the workforce but only 15% of value added, despite strong biomass potential. Value creation per capita remains far below the EU average. Unlocking this gap requires advanced technologies and better use of existing expertise. Initiatives like the BIOECO-UP project aim to support this transition.

5.2. Introductory speech of BIOECO-UP project leader

The project leader Rita Soós briefly presented the main objectives of the project and the main challenges that the consortium partners wanted to find solutions to. .Over the past three years, the programme has addressed three weaknesses facing bio-based sectors in Central and Eastern Europe: low awareness of sustainability issues and the bioeconomy, underdeveloped bio-based value chains, and insufficient dedicated funding mechanisms. Although the bioeconomy—comprising interconnected biomass-producing and processing sectors—holds strong potential to support the transition to a more sustainable economic model, this potential remains underutilized.

To unlock this opportunity, three strategic priorities have been identified: (1) strengthening and scaling bio-based value chains to increase value creation at national and international levels; (2) raising consumer awareness and fostering active participation in the circular bioeconomy; and (3) enhancing policy recognition of biomass and bio-based solutions as strategic drivers of the green transition.

The conference contributes to this agenda by presenting EU-level approaches, highlighting regional and national initiatives, and showcasing practical examples of cooperation among economic, research, industrial, and policy actors.

5.3. KEYNOTE PANEL FOCUSING ON EU, REGIONAL AND NATIONAL LEVEL INITIATIVES SUPPORTING THE BIOECONOMY

Keynote panel moderator Prof Luka Juvancic introduced the keynotes highlighting that we live in the age of poly-crisis and we entered the next era of bioeconomy. The new EU Bioeconomy Strategy addresses the challenges and threats hitting the regions like biodiversity loss or climate change meanwhile focuses on the competitiveness, resilience, strategical autonomy and stronger diversification in bio-based sectors, as well. He took into

account policies that help transformation, such as the EU Bioeconomy Strategy (2025) and the Common Agricultural Policy.

5.3.1. Gregorio VICHI (INTERREG CE): Why cooperation in central for advancing bioeconomy

Gregorio Vichi policy officer overseeing the implementation of BIOECO-UP within the INTERREG CENTRAL EUROPE framework emphasized that effective stakeholder cooperation is a cornerstone of advancing the bioeconomy. His presentation situated BIOECO-UP within the broader mission of the INTERREG CENTRAL EUROPE programme, highlighting its strategic relevance in fostering transnational collaboration and making Central Europe more green.

At its core, INTERREG CE aims to support a greener, more cohesive Central Europe by enabling cities and regions to enhance efficiency, strengthening professional networks, and addressing challenges that transcend national borders through targeted funding mechanisms. Projects such as BIOECO-UP exemplify this approach by facilitating knowledge exchange, thereby avoiding duplication of efforts and accelerating the adoption of improved solutions.

A key dimension of this cooperation is the integration of remote and rural areas with cities, ensuring balanced regional development while enhancing environmental sustainability and climate resilience. The initiative also contributes to broader policy objectives, including the promotion of the circular economy, reduction of waste, creation of new jobs and skills, and the improvement of cross-border regional connectivity.

Stakeholder cooperation is positioned as a critical driver of Europe’s green transition. By fostering solidarity and generating synergies across regions, INTERREG CE initiatives like BIOECO-UP play a pivotal role in strengthening territorial cohesion and delivering sustainable, long-term impact.

Last but not least, the policy officer drew the partners' attention to the importance of strengthening the sustainability of results and offering these to citizens, networks, other stakeholders helping the results travel further.

5.3.2. Dr. Michael LOSCH – DG AGRI : EU Bioeconomy Strategy

DG AGRI bioeconomy coordinator put the strategic policy framework into focus in his presentation. He started his speech with the 2040 bioeconomy vision for a **competitive and sustainable bioeconomy by 2040**, promote the use of bio-based and circular solutions across all relevant sectors – as fossil-free alternatives – and support innovation and investments.

He highlighted two important paragraphs as follows:

"By 2040, sustainable bio-based materials and products (…) are widely deployed in the EU. They provide fossil-free alternatives and create new, stable income streams in rural, coastal and industrial regions across Europe. Sustainable yield improvements support resilient farming and food systems grounded in knowledge-based management. Integrated biorefineries and advanced fermentation facilities operate across the continent, turning diverse feedstocks into high-value products.

The Bioeconomy enables Europe to mobilise its own strengths – productive farmlands, sustainably managed forests and healthy oceans – to deliver prosperity, economic and food security and resilience. (…) Europe meets most of its biomass needs through sustainable domestic production. The strategic use of by-products and residues makes resource use more efficient, while boosting the EU's position in global markets."

He emphasized the rapidly increasing global consumption of fossil-based raw materials, as well as the dramatic growth in the use of industrial materials such as ammonia, plastics, construction materials, and steel. He concluded that we must address not only energy overconsumption but also the overuse of materials.

He drew attention to the EU's bioeconomy potential, while stressing the importance of maintaining a clear strategic focus. The bioeconomy is a vast meta-sector encompassing traditional agriculture and manufacturing industries (such as food and beverages), as well as the production of innovative bio-based materials, which currently represent only about 30% of the overall bioeconomy. The EU Bioeconomy Strategy therefore places particular emphasis on this 30% segment.

The EU Bioeconomy Strategy is built on four main pillars:

- **First**, strengthening bio-based sectors and scaling up innovation. This includes supporting the transition from lab to market, fostering investment, and deploying sustainable bio-based solutions.
- **Second**, developing lead markets while empowering primary producers—such as farmers, foresters, and local communities—to create value from biological resources in a sustainable way, thereby supporting job creation and regional cohesion.
- **Third**, understanding and respecting the ecological boundaries of the bioeconomy. Increased biomass use must not compromise ecosystems, soil health, or biodiversity. Science-based policymaking and robust monitoring are therefore essential to ensure sustainably sourced biomass.
- **Fourth**, from the perspective of DG AGRI, harnessing global partnerships and opportunities, which are central to advancing the bioeconomy transition.

Looking ahead, the bioeconomy offers Europe a unique opportunity to reconcile economic competitiveness with environmental sustainability. However, achieving this requires strong collaboration across sectors, regions, and stakeholders.

Scaling up bio-innovation and investment can be achieved by facilitating market entry, implementing the EU Biotech Act, ensuring adequate funding through the Multiannual Financial Framework (MFF), and attracting private investment. The EU must also develop lead markets for materials and technologies that use biomass efficiently, including stimulating demand through public procurement.

He highlighted the role of bio-based plastics and fibre-based packaging materials in replacing fossil-based alternatives, emphasizing that the European Commission will strengthen support for bio-based plastics. Bio-based fertilizers, biogas production, and closing nutrient cycles represent forward-looking opportunities for farmers. In addition, farmers can play a key role in revitalizing the European wool value chain. Wool offers significant potential for innovation and sustainability, although the carbon footprint of certain applications can be considerable.

Ensuring sufficient biomass supply also requires increasing the use of secondary feedstocks and enhancing circularity. There is potential to mobilize additional forestry biomass, with only two countries currently exceeding sustainable harvesting levels. To respect planetary boundaries, it is essential to align with and actively contribute to the global bioeconomy agenda.

5.3.3. Dr. Barna KOVÁCS (BIOEAST Initiative). Past, Present and Future of the BIOEAST Initiative.

The BIOEAST Initiative has a ten-year history and now is undergoing a structural transformation. The BIOEAST Secretary, Barna Kovács, shared his perspective on this critical juncture, calling for renewed strategic direction and reinforced implementation mechanisms.

A key question for Central and Eastern Europe is how the region can better align with global trends, scale up bio-based innovations, and integrate into EU strategies. The BIOEAST Initiative serves as an important instrument to support this alignment with the broader European pathway. His presentation focused on the main priorities for the near future. While the macro-region is aware of the major challenges, the critical issue remains how to respond—where to place emphasis, and why.

The European Commission's new Multiannual Financial Framework (MFF), covering the period from 2028 to 2035, is currently under preparation. Priority-setting has already begun, alongside negotiations between Member States and the European Parliament on funding allocation and strategic focus areas.

He emphasized that the bioeconomy is a priority area in the Commission's proposal. One key pillar is the National and Regional Partnership Plans, which will serve as core instruments for distributing funds at the national level. Another major instrument is the European Competitiveness Fund. In both pillars, bioeconomy and biotechnology are identified as strategic priorities.

He also noted that the EU bioeconomy is entering its third phase, where market deployment becomes central and is expected to accelerate significantly. The new strategy addresses key gaps that the Central and Eastern European region has faced so far—particularly in education, research, and innovation, as well as in sectoral integration.

The BIOEAST Initiative, launched in 2016, aims to strengthen research and innovation and to shape European policy. However, building a competitive bioeconomy in the region remains a challenge. There is a clear lag in processing capacity and industrial competitiveness, which cannot be addressed by individual countries alone. The development of research capacities is key to fostering innovation excellence and remains a critical competitiveness issue across the region, making cooperation essential.

The BIOEAST vision is to enable a macro-regional coordinated approach by having an EU-wide partnerships which must ensure long-term commitment on research and innovation. Strengthened National BIOEAST Hubs need to mobilize stakeholders—especially business actors—while policymakers require support at both national and EU levels to design and implement effective bioeconomy policies.

5.3.4. Anikó Fehér (BIOEAST National HUBs Coordinator, Budapest University of Technology and Economics) : Bioeconomy Hubs as Drivers of Change in Central and Eastern Europe

Across Central and Eastern Europe (CEE), many countries already recognise the importance of the bioeconomy. Strategies have been developed, priorities have been identified, and the transition toward more sustainable, bio-based systems is clearly on the political agenda. Yet turning these ambitions into reality remains difficult. In many cases, the main challenge is not a lack of ideas, but a lack of connection between the people and institutions that could bring them to life. This is where bioeconomy hubs can play a transformative role. They can serve as meeting points where policymakers, researchers, businesses and regional actors come together to build a functioning innovation ecosystem. In other words, a hub helps actors who often work separately begin to collaborate around shared goals.

The need for such coordination is especially strong in CEE. The region has many valuable assets, including abundant biomass resources, growing research and education capacity, and increasing interest in sustainable, bio-based solutions. At the same time, however, innovation ecosystems are often fragmented, cross-sector cooperation remains limited, and small and medium-sized enterprises may lack the capacity to fully engage in innovation

processes. As a result, promising knowledge and technologies do not always reach the market. Successful bioeconomy development requires both top-down and bottom-up approaches. On the one hand, policy-driven structures are needed to align national and European strategies. On the other hand, innovation clusters, regional ecosystems, stakeholder consultations and industry needs must shape the process from the ground up. Bioeconomy hubs can connect these two directions, making them especially valuable as catalysts of regional transformation.

National bioeconomy hubs are designed to bridge this gap. Their core function is to connect key actors and turn scattered efforts into more coherent action. They support stakeholder coordination, knowledge transfer, project development and the strengthening of innovation ecosystems. Just as importantly, they help translate practical needs into policy input while also supporting market actors in deploying bio-based solutions. Within the BIOEAST framework, national BIOEAST bioeconomy hubs have been strengthened as platforms for collaboration among key stakeholders. Their activities include supporting national action plans, contributing to policy development, encouraging interministerial dialogue, and helping mobilise both public and private investment. Looking ahead, the next step is to further strengthen coordination by integrating existing initiatives, reducing overlaps, and building a more coherent national bioeconomy ecosystem. In the longer term, more formalised hub structures could bring clearer governance, more stable funding, and stronger organisational capacity. Overall, bioeconomy hubs can help CEE move from strategy to implementation. By connecting people, institutions and ideas, they can turn fragmented efforts into real progress and support the region in building a more innovative, sustainable and resilient bioeconomy.

5.4. PANEL ON HARMONISING EU BIOECONOMY STRATEGY AND CAP WITH NATIONAL STRATEGIES – PAST EXPERIENCES AND FUTURE DIRECTIONS", FROM CAP TO MARKET: UNLOCKING OPPORTUNITIES IN THE BIOECONOMY BY INTERREG CENTRAL EUROPE, BIOECO-UP PROJECT CLOSING EVENT

5.4.1. Summary of Key Points

The discussion highlighted a significant gap between the strategic ambition of the EU bioeconomy and its practical implementation within the Common Agricultural Policy. Participants agreed that while the concept of bioeconomy is present in policy discourse, it is not effectively translated into concrete incentives or measures accessible to farmers.

A central theme was the need for a systemic approach combining cultural change, policy alignment, and market development. Experts stressed that bioeconomy transition requires

not only technological innovation but also functioning markets, stronger demand, and supportive public procurement and fiscal policies.

Equity and inclusiveness were also emphasized, with concerns that current CAP instruments disproportionately benefit large farms. Targeted measures, cooperation models, and bioeconomy hubs were proposed to better integrate small and vulnerable farmers.

Finally, a major challenge identified was the lack of appropriate monitoring and evaluation frameworks. Participants called for dedicated indicators, improved data collection across sectors, and the integration of rigorous evaluation methodologies to ensure evidence-based policymaking and accountability.

Ákos Kristóf (Hungarian Ministry of Agriculture): Opened the discussion by highlighting the complexity of the topic and asked Davide Viaggi about lessons learned so far regarding bioeconomy and policy.

Davide Viaggi (University of Bologna, Italy): Drawing on his experience as a former expert panel member for the European Bioeconomy Strategy, he stressed the importance of working on two levels:

- Developing a shared vision, cultural understanding, and mindset.
- Ensuring practical consistency in policy incentives.

He noted that although the term “bioeconomy” appears multiple times in CAP strategic documents, it is not translated into concrete measures for farmers. As a result, farmers are often unfamiliar with the concept or confuse it with organic farming. Member States’ strategic plans have not sufficiently developed this dimension.

Luka Juvančič (University of Ljubljana, Slovenia): Highlighted the role of institutional inertia in maintaining mainstream policy measures. Emphasized that ministries should co-design strategies with stakeholders to better reflect the full range of possible actions.

Aleksandra Pawłowska (Institute for Rural and Agricultural Development & European Development Network, Poland): Stressed the need to analyse farm income dynamics to identify additional income streams. Proposed that policies should:

- Promote circularity to reduce input dependency.
- Stabilize costs, especially for small and vulnerable farms.
- Address unequal distributional effects of CAP, which tend to favor large agribusinesses.

She also emphasized the importance of cooperation mechanisms, such as bioeconomy hubs, to ensure inclusive access to support.

Davide Viaggi (University of Bologna, Italy): Argued for more focused and systematic interventions. Suggested prioritizing CAP support for the uptake of bio-based inputs (e.g. biofertilizers, biostimulants, bioplastics).

Davide Viaggi noted that €42 billion is allocated to eco-schemes and stressed the need to assess both environmental and distributional impacts. He recommended considering using part of this budget to promote the uptake of bio-based input in agriculture: this will provide substantial resource for activities that stimulate a circular agriculture and bio-based value chains rather than compensating for hindering productivity.

Jerzy Kozyra (Institute of Soil and Crop Cultivation, Poland): He raised the issue of institutional and governance challenges in advancing the bioeconomy.

Luka Juvančič (University of Ljubljana, Slovenia): Emphasized that bioeconomy is not only about technology but about systemic transformation and market creation. Key barriers include:

- Weak market demand,
- Limited competitiveness of bio-based products,
- Lack of supportive procurement and fiscal policies.

  He stressed that without competitive and user-friendly products, adoption will remain limited regardless of sustainability benefits.

Jerzy Kozyra: He highlighted that the Bioeco-up project has developed tools supporting the transition toward bioeconomy and pointed to the importance of social aspects, inviting further input from Aleksandra Pawłowska.

Aleksandra Pawłowska: She insisted in the field of her expertise and focused on monitoring and evaluation challenges:

- Current CAP monitoring frameworks are not suited to assess bioeconomy impacts.
- There is a lack of indicators capturing income from bio-based activities beyond food production.
- A dedicated set of bioeconomy indicators is needed for accountability and evidence-based policymaking.

She also stressed the need for cross-sectoral data collection, the importance of operationalizing macro-level frameworks at national level and the use of rigorous evaluation methods (e.g. counterfactual approaches such as difference-in-differences, regression discontinuity). Such methodologies should be integrated into policy design from the outset, not applied only ex post.

Ákos Kristóf: Closed the discussion by thanking participants for their clear and insightful contributions.

5.5. PANEL ON MOTIVATING CONSUMERS AND PRODUCERS TO CREATE A SUSTAINABLE, RESILIENT AND RESOURCE-EFFICIENT BIOECONOMY

Moderator: Chiara Samorì (University of Bologna, Italy)

5.5.1. Keynote speech: Tajana Radic (Chamber of Agriculture, Croatia), Tools for Citizens to Become Greener Consumers and Prosumers

This activity highlighted an initiative aimed at empowering citizens to actively participate in the bioeconomy as both consumers and producers of bio-based products. To achieve this, practical instructions for creating home-made bio-based items were developed, translated, and used in workshops across multiple countries. Each workshop engaged at least 40 participants in hands-on activities, supported by tutorial videos and educational materials shared online. The sessions introduced the BIOECO-UP project, explained the concept and benefits of bio-based materials, and addressed legal and business aspects of production. Participants, including public authorities, farmers, and citizens, actively produced bio-based products under expert guidance. Workshops were delivered live by trained presenters and supported by printed materials and collaboration with various organizations. The initiative also fostered partnerships with associations and private sector stakeholders. A key outcome was the creation of accessible guidelines for producing everyday bio-based products using renewable and biodegradable materials. These products were presented as sustainable alternatives to conventional, fossil-based goods. Overall, the activity promoted environmental responsibility, reduced reliance on non-renewable resources, and encouraged long-term engagement in sustainable practices.

Panel discussion: Laura Pezzolesi (University of Bologna, Italy), Adrienn Nagy (Pilze-Nagy Ltd and Chamber of Agriculture, Hungary), Tajana Radic (Chamber of Agriculture, Croatia)

Question n°1. What are the most effective drivers—economic, behavioural, or regulatory—for motivating consumers to choose bio-based/sustainable products over conventional ones?

L.P. The strongest drivers pushing consumers toward bio-based and sustainable products are a blend of economic incentives, behavioural motivations, and regulatory pressures.

Behavioural factors consistently emerge as the strongest predictors of whether consumers actually choose sustainable products, and can be listed as:

• Environmental awareness & eco consciousness: consumers increasingly recognise climate and pollution issues, which motivates them to choose greener options.

• Personal values & identity: people want their purchases to reflect their ethics (e.g., supporting fair labour, reducing waste, or lowering carbon footprints).

• Trust in sustainability claims: trust is critical, while greenwashing and unclear labels create scepticism, which can block sustainable choices even among motivated consumers.

• Health and safety perceptions: some consumers associate biobased products with being healthier or safer, which boosts adoption.

Economic Drivers are also powerful: consumers often say sustainability matters, but price and convenience heavily influence real-world choices. Key economic motivators could be:

• Price competitiveness: sustainable products gain traction when their price is similar to that of conventional alternatives.

• Perceived value: if consumers believe sustainable products last longer or offer superior quality, they are more willing to pay.

• Availability & accessibility: wider distribution and easier access significantly increase adoption.

Regulatory Drivers shape the market environment but tend to influence consumers indirectly:

• Mandatory labelling & standards: clear, credible labels reduce confusion and build trust, addressing one of the biggest barriers to sustainable choices.

• Incentives & subsidies: lowering prices through policy can make sustainable products more attractive.

• Restrictions on harmful products: bans or taxes on non-sustainable options push consumers toward greener alternatives.

A.N. The very simplified answer is the economic drivers, of course. What is needed is the market pull: increasing the market with competitive prices. In a situation like that, there is no need to facilitate the transition to the bioeconomy. But what is the real situation? The European consumer market is shrinking and ageing, leading to oversaturation in the food and beauty sectors. As a result, consumers have become very selective and price-sensitive. On the other hand, farmers rely on wholesalers or processors because they do not have direct access to the final customer. In the traditional value chain, the processors have a valid influence on what is happening in the market. So if we want a real transition to bioeconomy-derived agriculture, we have to do something with this structure. So the question is how we can reorganise the value chain to create more opportunities for farmers? For that reason, we need to work on the regulatory drivers.

T.R. For farmers, the most important factor is profitability. They are doing a great job—especially organic farmers—but in times like these, with rising prices, it is difficult to plan and decide where to invest. They are facing multiple challenges, including climate change, market pressures, oil prices, and the cost of fertilizers.

As producers, they think like businesspeople and must constantly consider how to maintain production under these conditions. Therefore, the goal should be to develop pilot projects that are practical and easily applicable.

The "fear factor" can be both a driver and a barrier to change. Diversity is important, but consumers also demand lower prices. At the same time, we need to focus on how to make farming more circular and resilient in these circumstances.

Question n°2. Consumer trust is crucial. What strategies best communicate the environmental benefits of bio-based products without falling into greenwashing or oversimplification?

L.P. The most effective way to communicate the environmental benefits of bio-based products without drifting into greenwashing is to combine transparent, evidence-based claims with clear, consumer friendly communication supported by credible certification. Research shows that concise labelling, trustworthy standards, and honest messaging significantly increase consumer trust:

• Use clear, concise, and standardised terminology: consumers often struggle with vague or overly technical sustainability claims. Define "bio-based" in simple, factual terms, avoid ambiguous terms like "eco-friendly" or "green" unless backed by measurable data, and use harmonised terminology aligned with recognised standards.

• Provide transparent, evidence-based claims: consumers trust sustainability claims when they are specific, measurable, and verifiable. Quantified impacts (e.g., % bio-based content, CO_2 reduction), honest trade-offs (e.g., "lower carbon footprint, but not compostable").

• Rely on credible labels and certifications: certification schemes are one of the strongest tools for building trust in bio-based products, e.g., Bio-based carbon content verification, sustainability labels with clear criteria.

• Tell a clear, honest sustainability story: consumers respond well to narratives that explain why a product is better for the environment without exaggeration, e.g., explain the product's origin (e.g., renewable feedstock), describe the environmental benefit in context (e.g., reduced fossil resource use), and avoid overpromising or implying absolute environmental superiority.

• Use comparative information carefully: comparisons can be powerful but must be accurate and fair, e.g., use verified data and avoid selective reporting, highlight both benefits and limitations.

• Address common misconceptions directly: bio-based products face persistent myths (e.g., "biobased = biodegradable"). Addressing these proactively helps consumers make informed choices, e.g., clarify that "bio-based" does not automatically mean "compostable", and explain performance characteristics honestly.

• Align communication with consumer values: consumers are motivated by different things, such as climate impact, health, safety, or ethical concerns.

A.N. Let me give you an example to illustrate the complexity of this goal. Consider two carrots: the first is perfectly shaped, while the second is misshapen but priced higher. Which one would you choose?

Most likely, the first one. Why? Because it meets the existing quality standards. These standards ensure that fresh produce in the market complies with all quality and safety regulations, and they form a strong foundation for consumer trust. Therefore, if the carrot is considered to be first grade, all its characteristics are supposed to fall into this category. Now, let's think further. If I want to make a creamy carrot soup, what's more important: the shape of the carrot or its taste? We can't be sure which carrot will taste better, but we often assume that the perfectly shaped one will have superior flavour. This highlights the influence of standards. I believe that bio-based products can sometimes be likened to a misshapen carrot. The quality standards for these products should be based on their sustainable benefits rather than their appearance. However, my concern is that we humans tend to behave differently; we often seek out perfect and convenient products. The bioeconomy may not always provide a more convenient lifestyle, but it aims to minimise conflict with nature and promote a better, more sustainable future. We need to understand this through stories and education.

T.R. Each Member State is different, and consumer habits should be carefully analyzed to understand why people choose certain products. Labels and certifications can help build trust, especially when supported by experts who communicate clearly with consumers.

Promotion and marketing play a key role—not only through social media but also through collaborations with celebrities or influencers. This helps reshape the narrative and tell a compelling story about the product. There are many available funds dedicated to promoting European products, which should be better utilized. In addition, regulations are an important factor influencing both production and consumer behavior.

5.6. FROM LOCAL IDEAS TO REGIONAL MARKETS PANEL

Moderator: Matej Fatur (UL)

5.6.1. Keynote speech (Dominika Pancakova, Bioeconomy Cluster, Slovakia): Turning collaboration into bioeconomy value chains: BIOECO-UP experience

Dominika Pancakova presented the development and validation of inter-sectoral cooperation procedures for designing bioeconomy value chains, one of the project's key outcomes within activity A1.3. Building on earlier conceptual work, these procedures were refined through pilot testing and transnational peer review into a practical, step-by-step guide that helps stakeholders design, implement, and assess cross-sectoral bioeconomy initiatives. The application of the DDIA (Diagnose-Design-Implement-Assess) framework in different national contexts proved its adaptability and relevance. Despite variations in resources, stakeholder maturity, and regulatory conditions, testing confirmed that the framework's logic is transferable and effectively guides users in identifying opportunities, building cooperation models, and evaluating sustainability impacts. The framework integrates concrete tools such as structured templates and examples that address challenges faced during pilot implementations. This combination of methodological and practical support equips stakeholders to strengthen bioeconomy cooperation across sectors.

At a broader level, the procedures contribute to Europe's transition towards a circular, resource-efficient, and climate-neutral (bio)economy. By enabling the valorisation of biological resources, industrial side streams, and bio-based innovations, they enhance regional bioeconomy ecosystems and foster sustainable value creation. Their modular, flexible structure ensures continued applicability beyond the project's lifetime and supports stakeholders in scaling inter-sectoral bioeconomy value chains across diverse regions.

5.6.2. Keynote speech (Darja Demšar Institute for Sustainable Development, Slovenia) Project Experience in Collaborative Product Development

Darja Demsar presented the testing of innovative bio-based products using living lab methodology within A2.3. Over the course of the project, we engaged 25 business organisations across seven countries, testing a total of 39 bio-based products and services through both national and transnational living labs. The approach was distinctly human-centred, combining design thinking and collaborative co-creation methods. Working across the entire bioeconomy value chain; from raw material extraction and cultivation, through biomass processing, to bio-based alternatives and resource upcycling. Each product was evaluated from three perspectives: usability, marketing appeal, and environmental sustainability. The methodology proved highly adaptable. We employed hands-on demonstrations, sensory testing, focus group discussions, and home-testing in real-world. Gathering feedback through interviews, questionnaires, and observation. This structured

approach allowed us to refine products not only for market readiness but also to strengthen their circular economy credentials and environmental integrity.

A key highlight was the transnational testing phase, where products from individual countries were tested in foreign markets. This cross-border validation enriched the methodology and demonstrated how bio-based innovations can find success across different regional contexts. The work has produced both practical outputs; including a comprehensive protocol for business support institutions, and documented success stories that will guide future bioeconomy initiatives.

Panellists:

- Markus Klein (Ekolive, Slovakia)
- Ivana Dević (Zadar Regional Agency, Croatia)
- Dr. Tibor Hejj (Proactive Management Consulting, Hungary
- Korinna Varga (Research Institute of Organic Agriculture, Hungary)

Markus Klein highlighted that one of the biggest challenges for Central Europe lies in regenerating soil and understanding its effects on plant growth, which is closely linked to **human health**. He sees this connection as a strong opportunity for the future markets. Markus emphasized the value of collaboration, noting that initiatives such as Living Labs have proven very effective in testing innovations and facilitating market entry. He stressed the importance of combining knowledge and taking concrete steps toward implementation.

Ivana Dević spoke about her experience in Zadar County, a unique region characterized by more than one hundred islands, rivers, mountains, and three seas, features that make the area both promising and complex. Creating a unified strategic plan for such a diverse and protected region (over 90% of it is designated under Natura 2000) is highly challenging. Acting as a bridge between universities, research institutions, SMEs, and farms, she underlined the need to include local businesses in developing regional strategies. Ivana observed that while new concepts such as sustainability and circular economy are essential, sometimes the best solutions already exist locally, for example, on farms, and can be adapted elsewhere. She added that innovation is important but carries risks; therefore, regions must find a balanced “sweet spot” where creative approaches remain practical and feasible.

Dr. Tibor Hejj provided a strategic perspective on the importance of cooperation between policymakers and SME's. He discussed how value chains function end-to-end and pointed out that while the EU may play a limited role in the final phases, it should provide stronger support in “valleys of death,” where scaling up innovations often fails. He advocated for recognizing the different roles stakeholders play within the quadruple helix model and viewing value chains as part of broader ecosystems in which universities also act as key players. Dr. Hejj suggested developing virtual spaces, such as those

supported by Horizon programmes, where stakeholders can collaborate internationally. He also stressed that regional cooperation is crucial if Central and Eastern Europe is to close the gap with Western countries, which share deeper historical and institutional alignment. Discussing ESG (environmental, social, and governance) frameworks, he noted that they have become a unifying regulatory force across EU member states. **ESG** is no longer optional but an **essential** part of business strategy, integrating social and governance objectives into long-term, value-based investments that attract young, ambitious talent.

Korinna Varga underlined the challenges farmers face when transitioning to organic production. Echoing Markus Klein, she emphasized the importance of soil health for biomass production and for reducing dependence on fertilizers and pesticides. Using organic amendments such as manure or compost can lower costs and support the creation of circular, closed-loop systems. Korinna noted that improving soil health also contributes to climate resilience, helping mitigate droughts, pest pressures, and diseases while also enabling carbon sequestration. Diversifying farmers' income streams, such as by turning waste into energy (biogas), creates opportunities for added-value products. However, she noted the lack of effective advisory services aligned with organic farming. Current support systems are overly bureaucratic, so there is a need for retraining advisors and shifting toward more practical, hands-on support for farmers. On the national level, Korinna called for systemic reform, advocating for a holistic approach that supports entire value chains rather than isolated sectors. Finally, she emphasized collaboration as a key factor for success, mentioning that within the Boost4Bioeast project, 11 Bioeconomy Hubs were established across Central Europe to strengthen connections and influence policy at the national level.

5.7. Main messages of the final conference

The discussions during BIOECO-UP final conference confirm that Europe is well-positioned to advance its sustainable transformation. The necessary foundations are already in place, including a strong technological base, several bio-based solutions, a robust research and innovation ecosystem, expertise, strong farming communities and significant biomass resources that underpin the continent's bioeconomy potential.

At both European and national levels, policymakers demonstrate a clear understanding of the challenges and opportunities associated with this transition. This shared awareness provides a solid basis for more coordinated and effective policy action in the coming years in spite of the fact that BIOEAST region legs behind Western countries related to value added creation and using bio-based innovations. .

The conference highlighted that advancing the bioeconomy is an evolving process. Rather than delivering definitive answers, it has contributed to identifying new questions, priorities, and areas for further collaboration. Continued dialogue and knowledge

exchange—facilitated through initiatives such as BIOECO-UP, BIOEAST or INTERREG CE—will remain essential to sustaining momentum and ensuring policy coherence across the region.

The online and in-person participation of representatives from multiple ministries across BIOEAST macro-region on final event, on BIOEAST Board meeting or national events further underlines the importance of knowledge sharing and cross-sectoral and transnational cooperation in shaping a resilient and competitive bioeconomy.

The INTERREG BIOECO-UP project operationalizes the strategic goals of the BIOEAST initiative by strengthening regional bioeconomies. It does so through improved policy instruments, active stakeholder engagement, and the development of added value and cross border and cross sectoral value chains. While BIOEAST defines the overarching vision and policy framework, BIOECO-UP delivers concrete, actionable implementation at regional and interregional levels.

F. TRANSFER OF PROJECT RESULTS AT NATIONAL LEVEL OR TO OTHER BIOEAST FORMATIONS AND PROJECTS

1. Czechia

Agricultural Research, LtD. Troubsko organized in the Czech Republic various events for both professional and lay public throughout the project. It actively presented project results at international fairs held in the Czech Republic and at national and international conferences. The high professional and design level of all presentation materials was positively evaluated by respondents. The list of dissemination events is long and includes, among others:

- International Trade Fair Země živitelka 2023-2025
- International Trade Fair Techagro 2024
- Field Days 2023-2025
- Open Days at Partner Workplaces 2023-2025
- Specialized Workshops
- Seminars within Living Labs
- Webinars
- National Bioeconomy Congresses 2024, 2025

Overall, hundreds of participants attended the event, where project brochures, info sheets and other outputs were presented. This was also reflected in the number of printed materials sold. The project videos also met with great interest.

Another important form of presenting results, especially in the area of bioeconomy potential and the search for greater synergy with the future CAP, were round tables with representatives of state administration, non-governmental agricultural organizations and agricultural entrepreneurs.

Also after the end of the project, as part of the dissemination of results, the project partner is planning a series of events where they will present the project outputs. In chronological order:

- International Agrishow 2026 Brno Fair, April 2026
- International Plant Fascination Day and Open Day, May 2026
- Field Days, June 2026
- International Fair Země živitelka at České Budějovice, August 2026
- 3rd Bioeconomic Congress Prague, November 2026

2. Hungary

2.1. Sharing BIOECO-UP experiences at the CEE2ACT final conference with representatives of CEE and BIOEAST countries

On December 4 2025 the CEE2ACT consortium held its closing event in Budapest titled “The Future of the Central and Eastern European Biomass Economy.” The conference brought together nearly 100 participants - including policymakers, industry representatives, researchers, and related initiatives from the CEE countries - to review the region’s bioeconomy potential and discuss next steps.

The event focused on presenting national bioeconomy roadmaps developed for ten CEE countries, highlighting key lessons learned and implementation factors. The programme also featured contributions from BIOECO-UP, BIO-INSPIRE, BOOST4BIOEAST, BIOLOC, MarginUp!, GreetCE, and BBioNets, offering broader insights into replication, financing, and cross-border cooperation. Regional context was provided by BIOEAST, supporting policy dialogue and coordination across Central and Eastern Europe.

As the lead partner of the BIOECO-UP project, HuMa was responsible for liaising with Geonardo Ltd., the organiser of the CEE2ACT closing event, and contributed to shaping the conference programme and thematic focus. HuMa also invited BIOECO-UP partners to participate in panel discussions held during the second half of the event, creating a valuable opportunity to share project results and experiences with a wider audience, including representatives of BIOEAST member countries.

2.2. BIOECO-UP final conference and preparation meetings

On 13 March 2026, the BIOECO-UP hybrid final conference entitled “From CAP to Market: Unlocking Opportunities in the Bioeconomy” was held. The event was attended by 75 participants in person and an additional 29 participants online, primarily representing policymakers, academic institutions, and industry stakeholders. Invitations were extended to representatives of institutions actively engaged in or interested in the bioeconomy from the CEE region, particularly from BIOEAST and BIOECO-UP countries.

BIOECO-UP partners used CEE Bioeconomy Stakeholder Forum for organizing invitations of both internal and external partners.

In the first part of the programme, plenary presentations addressed the last-update of the EU Bioeconomy Strategy (2025), the past and future of the BIOEAST initiative, and the role of hubs in advancing the metasector. The second session featured presentations by the leaders of the project’s work packages and actions, followed by a roundtable discussion focusing on project results and their potential for further uptake.

HuMa played a leading role in the successful implementation of the programme, particularly in developing the professional content and organising preparatory meetings and workshops. As part of this process, an expert consultation was held jointly with UNIBO on 23 February 2026, focusing on Bioeconomy Strategy evaluation tool. This was followed by a workshop on 26 February for BIOEAST Board members and Thematic Working Group (TWG) leaders, where project results, as well as their methodological background, challenges, and conclusions, were presented.

This structured series of preparatory events ensured that the final conference not only showcased project results but also maximised their practical uptake and implementation potential in the BIOEAST and broader Central and Eastern European region.

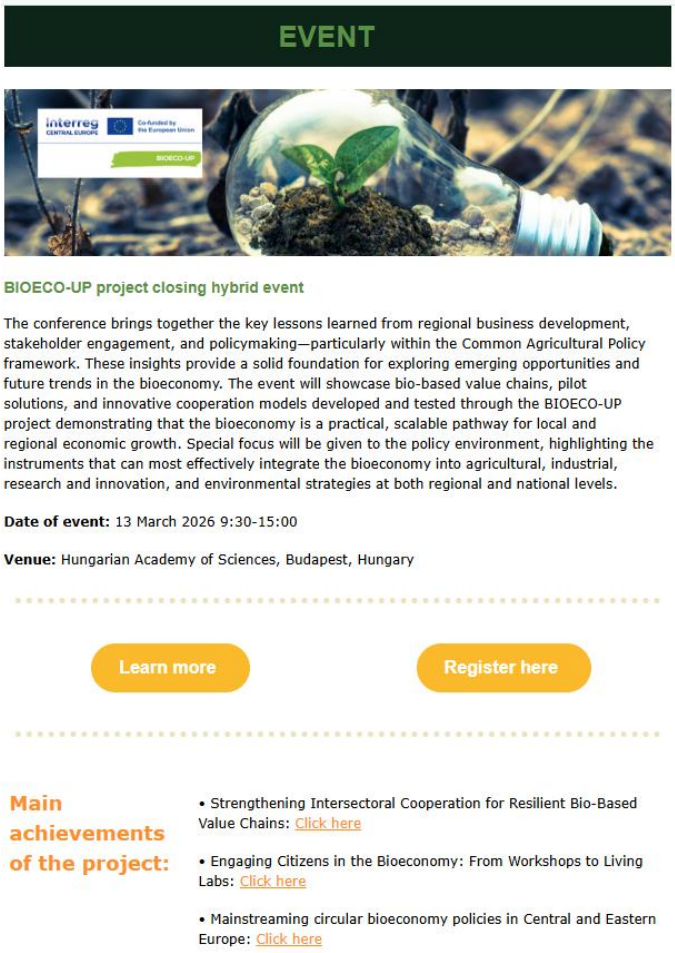
In addition to HuMa’s leading role, the proactive and supportive contributions of partners responsible for the project’s work packages and actions are also to be acknowledged.

2.3. Dissemination of BIOECO-UP results through BIOEAST communication channels

Beyond the organisation of events, continuous coordination was maintained with ÖMKI (Hungary), responsible for the professional leadership of the BOOST4BIOEAST project supporting BIOEAST, and with Budapest University of Technology and Economics, responsible for the operation of the HUBs. These stakeholders were regularly informed about the progress and key developments of the project.

In the first quarter of 2026, the available project results and outputs (10 pc) were uploaded to the BIOEAST Knowledge Platform, the repository of professional materials on the official BIOEAST website, ensuring structured and long-term accessibility of results.

To further enhance the dissemination of BIOECO-UP results across the BIOEAST region, a comprehensive article was prepared and published in the BIOEAST newsletter distributed to a wide range of stakeholders. The newsletter served a dual purpose: it functioned as an invitation to the BIOECO-UP final conference and, through embedded links, guided readers to a three-part article series presenting project outputs tailored to different target groups. The series also highlighted the long-term availability of these outputs on both the project's website and the official BIOEAST platform.


EVENT

BIOECO-UP project closing hybrid event

The conference brings together the key lessons learned from regional business development, stakeholder engagement, and policymaking—particularly within the Common Agricultural Policy framework. These insights provide a solid foundation for exploring emerging opportunities and future trends in the bioeconomy. The event will showcase bio-based value chains, pilot solutions, and innovative cooperation models developed and tested through the BIOECO-UP project demonstrating that the bioeconomy is a practical, scalable pathway for local and regional economic growth. Special focus will be given to the policy environment, highlighting the instruments that can most effectively integrate the bioeconomy into agricultural, industrial, research and innovation, and environmental strategies at both regional and national levels.

Date of event: 13 March 2026 9:30-15:00

Venue: Hungarian Academy of Sciences, Budapest, Hungary

Learn more

Register here

Main achievements of the project:

- Strengthening Intersectoral Cooperation for Resilient Bio-Based Value Chains: Click here
- Engaging Citizens in the Bioeconomy: From Workshops to Living Labs: Click here
- Mainstreaming circular bioeconomy policies in Central and Eastern Europe: Click here

3. Poland (IUNG-PIB)

The Institute of Soil Science and Plant Cultivation – State Research Institute (IUNG-PIB) has actively and continuously disseminated BIOECO-UP results within the BIOEAST community in Poland and at the European level, using a combination of national, international, and cross-sectoral events.

A key dissemination channel has been the Polish National Bioeconomy Hub, operating as part of the BIOEAST Initiative and gathering a broad and growing community of stakeholders (research, administration, business, NGOs). Within this framework, BIOECO-UP results were regularly presented during workshops, conferences, and co-creation meetings (overall several hundred stakeholders engaged cumulatively).

3.1. Types of events and stakeholders reached

BIOECO-UP results were shared through the following main types of events:

3.1.1. 1. International workshops and conferences (approx. 40-150 participants per event)

- Workshop "Local Circular Potential: biobased side and waste streams" (Warsaw University of Technology, April 2025) – presentation of:
  - co-creation methodologies for bio-based product development,
  - policy development processes for biogas/biomethane sectors,
  - cross-sectoral cooperation approaches.

  Stakeholders: researchers, innovation projects, regional actors, SMEs.
- "Bioeconomy: Innovation and Sustainable Development – CBE JU Info Day" (Warsaw, March 2025) – presentation of:
  - Living Lab approach,
  - biomass valorisation strategies,
  - BIOECO-UP contribution to BIOEAST.

  Stakeholders: EU and national policymakers, European Commission representatives, CBE JU, scientists, industry.
- "Green Transformation in European Rural Areas" (Vilnius, September 2024) – presentation of:
  - A3.2 methodology (SNA, TOWS, policy integration into CAP) validation,
  - strategic insights for mainstreaming bioeconomy.

  Stakeholders: ERDN network, policymakers, researchers.
- Bio-Based Future Connect (Brussels, December 2025; approx. 80 participants) – presentation of:
  - BIOECO-UP results in the context of EU policy and future calls,
  - concepts for scaling bioeconomy solutions via multi-actor cooperation.

  Stakeholders: European Commission, research organisations, industry, project consortia.

3.1.2. 2. National policy and institutional meetings (approx. 40+ participants per event)

- Meeting at the Ministry of Agriculture and Rural Development (February 2026):
  - discussion on integrating BIOECO-UP policy measures into CAP 2028–2034,

- direct dialogue with directors and representatives of departments.

Stakeholders: policymakers, ministries, administration.

- AKIS national meeting "Science and Advisory" (February 2026):
  - presentation of BIOECO-UP alongside Horizon projects and other funding sources,
  - discussion on innovation uptake and funding mechanisms.

Stakeholders: advisory services, ministries, research institutions.

3. Living Labs and co-creation workshops (approx. 25 participants)

- Living Lab (Puławy, December 2024):
  - testing of bio-based products,
  - implementation of A2.3 methodology,
  - contribution to result "solutions taken up or scaled up by organisations".

Stakeholders: businesses, consumers, researchers, innovation intermediaries.

3.2. Results shared

Across these events, IUNG-PIB presented key BIOECO-UP outputs, including:

- **Activity A3.2 – Strategy and Action Plan**

(approx. 100 policy measures, national and macro-regional recommendations, CAP integration pathways),

- **Methodological approaches**

(Delphi process, SWOT/TOWS, SNA, co-creation methods),

- **Living Lab methodologies and tested bio-based products (A2.3),**
- **Cooperation models and value chain development procedures (A1.3),**
- **Policy integration concepts linking bioeconomy with CAP and EU Bioeconomy Strategy.**

Importantly, results from A3.2 (joint strategies and action plans taken up by organisations) have been directly integrated into the **bottom-up developed Roadmap for Circular Bioeconomy in Poland**, currently being prepared for implementation.

3.3. Uptake and impact

The BIOECO-UP results have already reached:

- policymakers at national and EU level,
- research and innovation communities,
- business actors and startups,
- advisory services (AKIS),
- civil society and consumers.

They have contributed to:

- strengthening policy dialogue on bioeconomy in Poland,

- building cross-sectoral cooperation,
- increasing awareness of circular bioeconomy solutions,
- supporting the integration of bioeconomy into future CAP programming.

3.4. Future events and continuation after project closure

Following the project closure, IUNG-PIB will continue dissemination and uptake through several high-level events.

A flagship example is a **large-scale national and international event (approx. 170 participants)** co-organised with national institutions and targeting the BIOEAST community, policymakers, and the European Commission. During this event:

- the **Roadmap for Circular Bioeconomy Development in Poland** (based on BIOECO-UP results) will be officially presented,
- a **CBE JU Info Day** will provide guidance on funding opportunities and consortium building,
- matchmaking and networking sessions will support creation of new bioeconomy partnerships

3.5. BIOECO-UP results will be showcased as practical tools for policy and innovation.

The event will bring together:

- ministries and public administration,
- European Commission representatives,
- research institutions,
- industry, startups, and investors,
- BIOEAST stakeholders.

In addition, BIOECO-UP results will continue to be promoted through:

- National Bioeconomy Hub activities,
- cooperation with ministries (planned bilateral meetings in 2026),
- integration into new Horizon Europe proposals and national initiatives,
- further development of the BIOEAST ecosystem and stakeholder networks.

4. Slovenia

Close cooperation has been established with the Slovenian Bioeconomy HUB. Within the University of Ljubljana's Biotechnical Faculty, we have established the Center for Circular Bioeconomy. This collaboration has significantly contributed to improving knowledge exchange among researchers, stakeholders, and policymakers.

The project was also disseminated through the national project "Circular Technology Concepts and Business Models in Slovenian Agriculture", where synergies with Activity A3.2 of the BIOECO-UP project were leveraged to expand joint research with the Slovenian Chamber of Commerce and sectoral associations for fruit growing, livestock farming, and biogas. Together, we prepared a set of potential improvements, categorized into five thematic areas: (i) management and AKIS; (ii) development, innovation, and digitalization; (iii) climate and environmental sustainability; (iv) sustainable value chains in agriculture and food supply; and (v) the circular bioeconomy as a driver of rural economic development.

Collaboration with the Slovenian Rural Development Network (DRSP) further strengthened the project's reach, as it enabled effective cooperation with Local Action Groups (LAGs) and connected rural stakeholders and economic actors in line with the principles of the circular bioeconomy. Dissemination via LAS News, a monthly e-newsletter reaching approximately 460 subscribers, highlighted successful national and international bioeconomy practices in fields such as sports, construction, and everyday life.

To reach a wider audience, the University of Ljubljana, Faculty of Biotechnology organized an online seminar on user experience (UX) design, within A2.3 which is now available on the YouTube channel @Bioeco-UP. Additionally, Prof. Dr. Luka Juvančič presented key results of the BIOECO-UP project trough the DRSP network, such as:

- Prototypes of 16 bio-based products.
- Workshops on the circular bioeconomy in collaboration with the Local Action Group (LAG) (on mushroom cultivation on wood and extending the lifespan of wood products).
- A brochure on sustainable living with recipes and instructions for bio-based products.
- A strategy and action plan for bioeconomy initiatives.
- Educational video content available via the @Bioeco-UP YouTube channel, including webinars on bio-based construction, instructions for making bio-cosmetics, natural printer toners, and composting.

Finally, Prof. Juvančič's role as a member of the SCAR EU network ensured the continuous exchange of knowledge and dissemination of project results among European partners and experts.

In the near future, we will also present the project's results at the Slovenian Rural Parliament, scheduled for June 2026.

G. CE BIOECONOMY STAKEHOLDER FORUM

The CE Bioeconomy Stakeholder Forum has been created to ease the sharing and uptake of BIOECO-UP project outputs and results with special attention to the economic, social, research actors as well as the policy makers of BIOEAST macro-region.

1. Purpose and Role of the Forum

The Central and Eastern European (CEE) Bioeconomy Stakeholder Forum aims to serve as a key platform for fostering transnational cooperation, facilitating the development of bioeconomy value chains, and enhancing the market integration of bio-based products across the macro-region.

The Forum brings together the BIOECO-UP countries (AT, CZ, HR, HU, IT, SI, SK, PL) and the BIOEAST countries (BG, HR, CZ, EE, HU, LT, LV, PL, RO, SI, SK) by coordinating the exchange of bioeconomy-related information and project outcomes. The Forum supports bioeconomy stakeholders by providing a space for knowledge sharing, discussion of emerging trends, and identification of opportunities for the development of sustainable, cross-sectoral bioeconomy value chains.

The Forum enables various forms of communication and collaboration, including the organisation of physical events (such as thematic workshops and conferences), the establishment of a permanent stakeholder network, the development of digital tools for sharing project results, and the organisation of matchmaking events. These activities may be implemented individually or in combination. Knowledge exchange and discussion will be further supported by digital tools currently being developed for the BIOEAST and BIOECO-UP communities.

The Forum addresses four primary challenges:

- Underdeveloped bioeconomy value chains at the transnational level.
- Consumers' preference for fossil-based products over bio-based alternatives.

- Uneven policy recognition and support for the bioeconomy across CEE countries.
- Insufficient institutional capacity and fragmented stakeholder engagement in the implementation of bioeconomy strategies at national and regional levels.

The concept of the CEE Bioeconomy Stakeholder Forum has been developed with the involvement of representatives from the BOOST4BIOEAST project and the Secretariat of the BIOEAST Initiative.

2. Key Objectives

- *Facilitate the Development of Bioeconomy Value Chains*

The Forum supports the creation of bioeconomy value chains—cross-sectoral, circular, and multi-actor—by testing and developing transnational procedures for cross-sectoral cooperation. These procedures are piloted in BIOECO-UP countries as well as in other BIOEAST countries outside the BIOECO-UP project, ensuring transnational integration and long-term sustainability.

2.1. Enhance Knowledge Sharing and Networking

The Forum serves as a platform for knowledge exchange, enabling stakeholders to share best practices and innovations in the bioeconomy. Workshops, webinars, and pitch events foster connections among businesses, policymakers, and research institutions across the region contributing the goals of BIOEAST Initiative.

2.2. Empower Stakeholders

The Forum also focuses on empowering citizens by raising awareness of bio-based products and encouraging **prosumer engagement**, where individuals actively participate in both the production and consumption of sustainable goods. National workshops and educational materials will be provided to inform citizens about the benefits and production processes of bio-based products.

2.3. Ensure the Sustainability of the Forum

A sustainability plan will be developed to ensure the long-term operation of the Forum. This will involve aligning the Forum's goals and activities with existing initiatives, such as the BIOEAST Initiative, and securing long-term financing through EU cluster initiatives, national bioeconomy support programmes, and networking services.

2.4. Strengthen Institutional Capacity and Stakeholder Engagement

The Forum supports capacity building and coordination among national and regional bioeconomy stakeholders. By promoting dialogue among ministries, agencies, research institutions, and civil society, the Forum will help align strategies, strengthen institutional capabilities, and foster inclusive stakeholder participation in bioeconomy development.

Following the closure of the BIOECO-UP project, the CEE Bioeconomy Stakeholder Forum will be integrated under the umbrella of the BIOEAST Initiative and the results will be offered to it.

H. CONCLUSIONS

In the context of BIOEAST mission and objectives, the INTERREG BIOECO-UP project plays a complementary and operational role in advancing BIOEAST objectives. BIOECO-UP focuses on unlocking the potential of regional bioeconomies by improving policy instruments, enhancing stakeholder engagement, and fostering innovation ecosystems across participating regions. While BIOEAST provides a high-level strategic and policy framework, BIOECO-UP translates these ambitions into concrete actions at regional and interregional levels.

One of the key contributions of BIOECO-UP to BIOEAST goals lies in its emphasis on policy learning and capacity building. Through interregional cooperation, BIOECO-UP enables participating regions to exchange best practices, develop tailored policy solutions, and improve governance mechanisms. This directly supports BIOEAST's aim to strengthen institutional capacities and reduce disparities in innovation performance across CEE countries.

Furthermore, BIOECO-UP contributes to the implementation of the BIOEAST SRIA by promoting innovation in bio-based sectors and supporting the development of regional bioeconomy strategies. The project encourages the integration of circular economy principles, the valorisation of agricultural and food waste, and the development of sustainable value chains. These activities align closely with BIOEAST priorities such as resource efficiency, sustainability, and rural development.

Another important linkage is stakeholder engagement. BIOECO-UP actively involves regional authorities, research organizations, businesses, and civil society actors in co-creation processes. This multi-actor approach reinforces BIOEAST's vision of inclusive and participatory governance, ensuring that bioeconomy strategies are not only scientifically sound but also socially and economically viable.

Additionally, BIOECO-UP strengthens cross-border, interregional and cross-sectoral cooperation, which is a fundamental principle of the BIOEAST Initiative. By connecting regions with different levels of development and expertise, the project facilitates knowledge transfer and the scaling up of innovative solutions. This contributes to reducing regional disparities and enhancing the overall competitiveness of the CEE bioeconomy.

Last but not least BIOECO-UP acts as a practical implementation tool that supports the strategic ambitions of the BIOEAST Initiative. By focusing on policy improvement, innovation support, stakeholder engagement, and interregional cooperation, BIOECO-UP helps translate BIOEAST's high-level vision into tangible outcomes. Together, they form a coherent framework that advances the transition toward a sustainable, circular, and inclusive bioeconomy in Central and Eastern Europe.