



RIBES

REGIONAL INCLUSIVE BIOBASED
ENTREPRENEURSHIP SOLUTIONS

DELIVERABLE 5.6

RIBES MTF Midterm report

Q-PLAN INTERNATIONAL ADVISORS PC

29/08/2025



Funded by
the European Union

PROJECT INFORMATION

PROGRAMME	Regional Inclusive Biobased Entrepreneurship Solutions
TOPIC	HORIZON-CL6-2023-GOVERNANCE-01-5
TYPE OF ACTION	HORIZON Research and Innovation Actions
PROJECT NUMBER	101134911
START DAY	1 March 2024
DURATION	28 February 2027

DOCUMENT INFORMATION

TITLE	RIBES MTF Midterm report
WORK PACKAGE	5
TASK	T5.2
AUTHORS (ORGANISATION)	Dassopoulos K., Giagtzoglou K., Rampota P.
REVIEWERS	White Research
DATE	29/08/2025

DISSEMINATION LEVEL

PU	Public, fully open	x
SEN	Sensitive, limited under the conditions of the Grant Agreement	
CLASSIFIED R-UE/EU-R	EU RESTRICTED under the Commission Decision No2015/444	
CLASSIFIED C-UE/EU-C	EU CONFIDENTIAL under the Commission Decision No2015/444	

DOCUMENT HISTORY

VERSION	DATE	CHANGES	RESPONSIBLE PARTNER
V0.1	11/07/2025	INITIAL STRUCTURE	Q-PLAN
V0.5	28/07/2025	Content elaboration	Q-PLAN
V0.9	10/08/2025	Review	WR
V1.0	19/08/2025	Finalization	Q-PLAN

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Regional Inclusive Biobased Entrepreneurship Solutions

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ABBREVIATIONS

CBE	Circular Bioeconomy
KPI	Key Performance Indicator
M#	Month#
MTF	Multi–Actor Transformative Forum
TOC	Theory of Change
WP	Work Package

EXECUTIVE SUMMARY

This document titled “**D5.6: RIBES MTF Midterm Report**”, has been elaborated as a deliverable of RIBES describing the approach followed that will underpin the operation of the MTFs activities, as well as the development of RIBES’ multi-actor framework, guidelines and templates. The aim of RIBES is to enhance the uptake of biobased innovations through pioneering governance and business models developed on the convergence of the circular bioeconomy (CBE), social innovation and rural development.

In particular, RIBES will establish Multi-Actor Transformative Forums (MTFs) in nine (9) different European regions, namely Plovdiv Region, North Aegean, Pannonian, Campania, Western Balkans, Podkarpackie Region, Sibiu County, Vojvodina and Nitra Region to assist them shift from a linear to a circular biobased economy. Multi-actor Transformative Forums (MTFs) are regional networks of stakeholders coming from across the quadruple helix, including, circular and bio-based producers (e.g. individual rural entrepreneurs, tech providers), social entrepreneurs and social innovators, academic and research institutions (experts, researchers, etc.), government (political decision-makers, policy makers, etc.), and civil society. They will be engaged in key project activities throughout the project and will be provided with the opportunity to express their interests and perspectives, shaping the formulation, development, and piloting of the RIBES sustainable solutions towards zero-carbon circular and bio-based communities.

To successfully establish and operate its multi-actor framework, RIBES has elaborated a tailored methodology to ensure comparable results from local MTFs that are well-adjusted to local contexts results from regional MTFs. The mission of the MTFs as well as the MTFs generic objectives, dedicated challenges and the expected structure and the expected contribution of their engaged stakeholders have been clearly defined. In addition, the common protocol for the identification and selection of the MTF members has also been analytically described in order for the MTF managers to efficiently establish their structures, as well as guidelines for inviting members and managing their inclusion along with potential conflicts of interest that may arise during project activities. The rights and duties of the members, the activities to be engaged and an indicative timeline for these activities have been presented, in order to set up clear communication among partners and stakeholders. Finally, a management and monitoring framework along with an easy-to-use management tool, the MTF Matrix, has been developed to facilitate the everyday management of the multi-actor structures of the project.

Based on the designed multi-actor approach framework, the target is to directly engage more than 90 stakeholders in the MTFs, with a minimum of 10 members per region. According to the project’s Key Performance Indicators (KPIs), the expected number of engaged stakeholders ranges between 135 and 180 by the end of the project. As of 19 July 2025, a total of 157 actors have confirmed their participation in the project’s MTFs, already exceeding the midterm engagement expectations. The recruitment process will remain open through the project’s duration, to ensure continuous expansion and representativeness of the stakeholder base. The recruitment process will be continued, not only until the accomplishment of the target, but throughout the project’s duration in order to engage as many new stakeholders as possible.

1. Introduction

The RIBES project addresses the need to enhance the uptake of biobased innovations through pioneering governance and business models developed on the convergence of the circular bioeconomy, social innovation and rural development, thus contributing to the shift from a linear to a circular economy in 9 European regions lagging in innovation. To this end, RIBES implements 9 local MTFs based on the Living Lab and Open Innovation concepts to address complex societal challenges and problems by putting stakeholder participation and deliberation processes at the centre, aiming at systemic transformative change (instead of only addressing symptoms) in the three pillars of technological, social and economic innovation to co-create tailored business and governance models. The current report presents a dedicated operational manual for the RIBES MTFs, and it has been elaborated to set out the framework as well as the approach to be followed for setting up and running these local multi-actor structures. This deliverable report ensures the effective engagement of MTF stakeholders and is comprised of 6 distinct chapters:

- **Chapter 1** provides introductory information about the RIBES project and the context in which this report on our multi-actor framework and approach has been elaborated.
- **Chapter 2** outlines the implementation status of the Multi-Actor Transformative Forums (MTFs), their evolving stakeholder composition, and the midterm activities conducted across all regions along with future planning.
- **Chapter 3** presents the outcomes of the 1st Multi-Actor Transformative Forum (MTF) Progress Meetings held across all RIBES regions. It includes common discussion points, key findings, and summaries of each regional meeting.
- **Chapter 4** presents the outcomes of the 2nd Multi-Actor Transformative Forum (MTF) Progress Meetings held across all RIBES regions. It includes common discussion points, key findings, and summaries of each regional meeting.
- **Chapter 5** presents the outcomes of the 3rd Multi-Actor Transformative Forum (MTF) Progress Meetings held across all RIBES regions. It includes common discussion points, key findings, and summaries of each regional meeting.
- **Chapter 6** summarises the main conclusions of the MTFs progress to the RIBES project during the first implementation phase (M1-M18), presents key outcomes of their engagement, and concludes with next steps related to the project's multi-actor structures and future activities.

The Annexes of this report include:

- ANNEX I: the updated **stakeholder matrix** which partners are using for recording and monitoring the engagement of stakeholders in their MTF.
- ANNEX II: the **complete short reports** as received by the MTF managers with all the information about their progress meeting.

2. MTF progress

2.1 MTF status

Each region's Multi-Actor Transformative Forum (MTF) is coordinated by a designated MTF manager, a consortium partner responsible for gathering members with diverse profiles across the entire value chain of the agricultural & bio-based sector, as well as researchers, policy makers and groups representing civil society. The MTF manager oversees all communication and interaction between the MTF and the RIBES consortium, ensuring timely and effective participation aligned with project needs.

Since the initial establishment phase described in D5.5, significant progress has been achieved across all nine MTFs. Originally designed to include 10–20 members per region, the MTFs have exceeded expectations in stakeholder engagement. By July 2025, a total of 157 stakeholders had confirmed participation, compared to 109 one year earlier, reflecting a 42% increase and confirming the forums' growing relevance.

The structure and thematic focus of each MTF have been adapted by the MTF managers based on regional dynamics. Several regions have expanded their composition to include additional actors from civil society, academia, and business sectors, ensuring broader representation and contextual relevance. Moreover, internal procedures have been improved, with most MTFs adopting hybrid meeting formats to increase accessibility and maintain high engagement levels across activities such as co-design workshops, surveys, and validation sessions.

Lastly, the MTF stakeholder monitoring system (MTF Matrix) has been updated to reflect new members, stakeholder categories, and their engagement levels, supporting the project's monitoring efforts and alignment with its stakeholder-related Key Performance Indicators (KPIs).

2.2 MTF's stakeholders' composition

The composition of the MTFs reflects the diversity and multidisciplinary of the circular bioeconomy ecosystem in the RIBES regions. Stakeholders have been selected across key profiles as described in the Operational Manual (D5.5, Section 3.4, Table 2), covering academia, policy, business, civil society and production actors.

The following tables and figures present the composition of MTF members, as recorded in the MTF Matrix up to this period (Jul 2025):

- Stakeholder category, reflecting the diversity of profiles across the circular bioeconomy value chain.
- Regional participation, including all nine RIBES MTF regions and the Carpathian region, which follows a flexible engagement model due to external constraints.

Table 1 : MTF Stakeholders by Category (as of July 2025)

STAKEHOLDER GROUP	NUMBER OF PARTICIPANTS
Research & Academia	41
Business entities, SMEs & consultancies	28
Farmers, biomass owners & associations	20
Social entrepreneurs & innovators	16
Civil society organisations	17
Policy & decision makers	14
Industries & technology	10
Foresters & environmentalists	6
Investors & Financial advisors	2
Other	3
Total	157

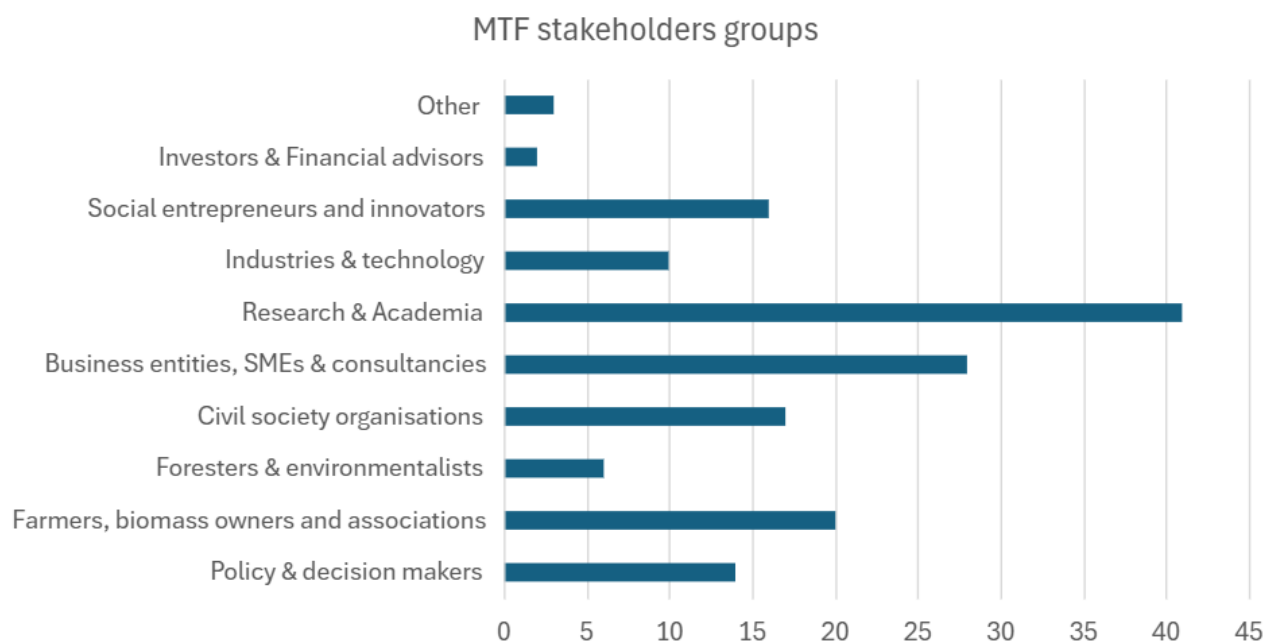
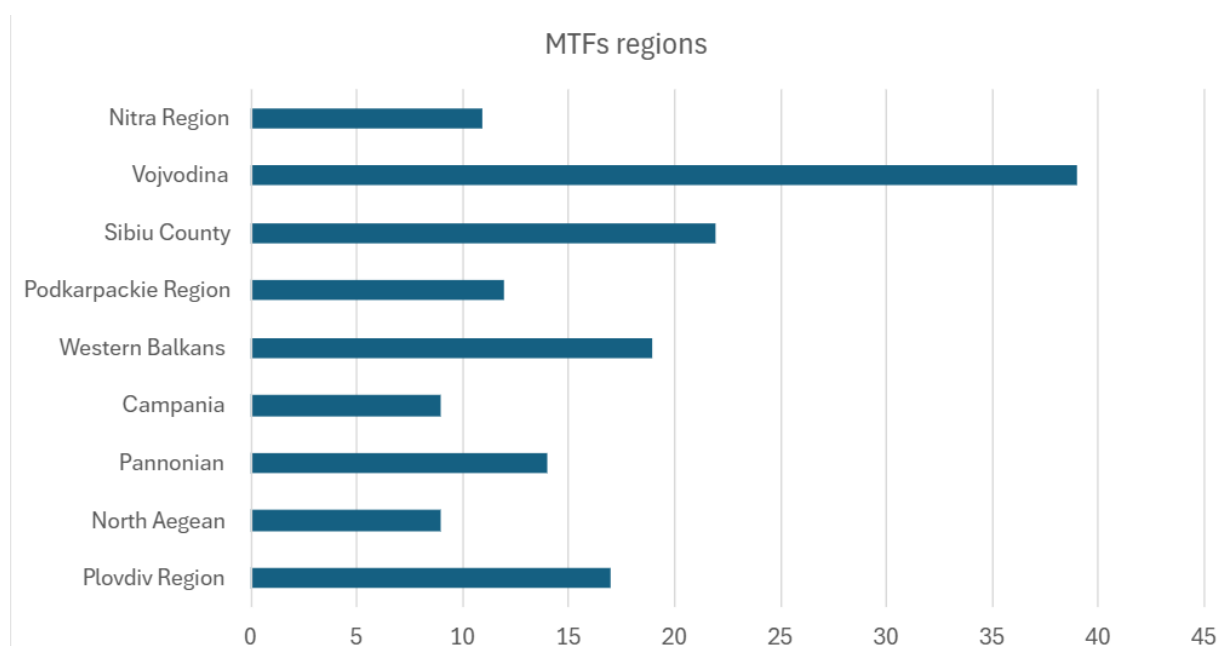
**Figure 1: Distribution of MTF Stakeholders by Category (as of July 2025)**

Table 2: MTF Stakeholders Per Region (as of July 2025)

REGION	MEMBERS
Vojvodina	39
Sibiu County	22
Western Balkans	19
Plovdiv Region	17
Pannonian	14
Podkarpackie Region	12
Nitra Region	11
North Aegean	9
Campania	9
Carpathian	5
Total	157

**Figure 2: Distribution of MTF Stakeholders Per Region (as of July 2025)**

The MTFs demonstrate a strong degree of stakeholder diversity and regional mobilisation. Research and academia represent the largest stakeholder group, accounting for 26% of total participation, followed by business-related stakeholders (18%). Civil society actors, social innovators, and farmers are also actively involved, contributing to a well-balanced multi-actor composition across regions.

At the regional level, Vojvodina accounts for the highest share of participation (25%), highlighting strong mobilisation and outreach in Serbia. Sibiu County and the Western Balkans also show high levels of

stakeholder involvement, suggesting the presence of mature regional ecosystems. On the other hand, regions such as North Aegean, Campania, and especially the Carpathian area demonstrate more limited participation, a pattern that reflects both contextual limitations and the flexible implementation approach adopted for Ukraine (as noted in Section 3.3 of D5.5).

Ensuring inclusive participation across all MTFs is a key priority in RIBES, and gender balance is monitored systematically through the MTF Matrix. The following table presents the gender distribution of all MTF members as of July 2025:

Table 3: Gender Distribution of MTF Stakeholders (as of July 2025)

GENDER	NUMBER
Male	97
Female	60
Other	0
Total	157

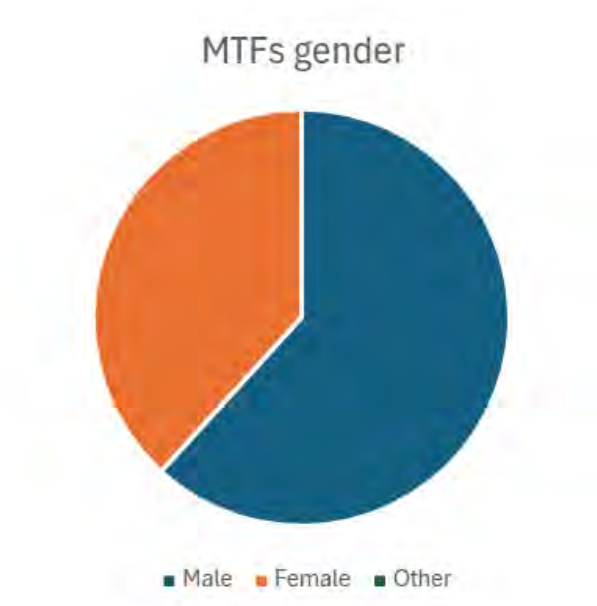


Figure 3: Gender Distribution of MTF Stakeholders (as of July 2025)

Although male participants remain the majority (62%), the representation of female stakeholders (38%) reflects a commendable level of gender inclusiveness in the composition of the MTFs. This balance aligns with the guiding principles set out in the Operational Manual (D5.5, Section 3.9, Table 5) which emphasise equal access and active engagement for all genders throughout project activities.

2.3 MTF midterm activities and planning

During the first half of the project, the MTF members were actively involved in a wide range of co-creation and validation activities and in close alignment with the project’s stakeholder engagement

strategy under Task T5.2. Their contributions have been essential in ensuring the regional relevance, inclusiveness, and practical applicability of the project's tools and models.

The planned activities covered all major phases of the stakeholder journey: from early familiarisation and needs assessment, to feedback, testing and co-design of solutions. These activities also ensured cross-task integration, connecting the MTFs to key actions in WP2, WP3, WP4 and WP5.

The first three MTF Progress Meetings served as structured entry points for stakeholder engagement, aligned with specific tasks in the RIBES work plan. Each meeting was thematically focused and designed to facilitate input at key moments in the project's development.

The **1st MTF Progress Meeting** marked the official launch of the Multi-Actor Transformative Forums and initiated stakeholder engagement **Task 2.5**.

At the same time, members were introduced to key elements of **T2.5**, including:

- the conceptual foundation of the RIBES framework,
- the categories and criteria for identifying good practices, and
- the role they would play in future validation and reflection cycles.

The **2nd MTF Progress Meeting** supported ongoing coordination activities under **Task 5.2**. During the session, MTF members:

- reflected on their experience from the initial activation phase,
- discussed expectations for upcoming project phases, and
- provided early input on engagement planning for the next stages.

In addition, members contributed to the identification of regional actors involved in biomass supply, helping to inform decision-support activities under **Task 3.2**.

The **3rd MTF Progress Meeting** supported both reflective and forward-looking activities. More in particular:

Under **Task 2.5**, members contributed feedback on:

- the RIBES conceptual framework (T2.1),
- the identified good practices (T2.2),
- and the selected case study (T2.4), providing region-specific insights to inform the evaluation process.

Under **Task 5.2**, MTF managers ensured continued engagement and communication with members, updated the stakeholder matrix, and coordinated contributions to upcoming phases.

In relation to **Task 2.2**, the meeting served as a follow-up on previous validation efforts. Members were asked to reflect on the survey findings and ecosystem mapping outputs, confirming their relevance and completeness in the regional context.

Finally, members were introduced to governance-related themes and performance indicators under **Task 4.1**, with emphasis on the governance KPIs, the assessment of their effectiveness, and the identification of training needs to support circular bioeconomy governance.

The participation of MTF members in RIBES activities was structured around specific areas of contribution, as outlined in the Operational Manual (D5.5). These activities were designed to support the co-development and regional adaptation of key project outcomes, while recognising that participation is voluntary and not expected from all members in every phase.

The planned contribution of MTF members in RIBES included several core activity types.

- **Validation** of survey outputs and data from the circular bioeconomy (CBE) ecosystem map, as well as governance frameworks and business model proposals, with a focus on stakeholder reactions and acceptance.
- **Identification** of key actors in feedstock provision, primarily based on locally collected insights through multi-actor focus groups aiming to map the "chain of events" – from capacity-building and planning to implementation and value creation.
- **Participation** in the following formats:
 - **Concept-sharing sessions** where the central elements of the RIBES framework, assessment criteria, and classifications of good practices were presented. These encounters also aimed to refine and finalise outputs and to prepare conditions for future collaboration.
 - **Progress meetings** with local project partners to inform RIBES activities, co-develop solutions, and exchange deliverables.
 - **Training efforts** carried out jointly with regional partners, involving the engagement of selected local actors.
- **Feedback provision** on RIBES digital and conceptual tools, the overarching framework, social evaluation methodologies, and the performance of existing governance mechanisms for circular bioeconomy.

The following sections represents a summary of the most important activities conducted and conclusions from each MTF progress meeting. For more detailed information please check ANNEX II for the short reports of each meeting as received from each MTF manager.

3. 1st MTF progress meeting

The first round of MTF Progress Meetings took place in September and October 2024 (M6–M7), shortly after the formal establishment of the MTFs. These meetings served as structured entry points for stakeholder engagement in all nine RIBES regions.

They introduced the RIBES project and its goals, presented the role of the MTFs, and initiated early discussions on regional bioeconomy challenges. Participants included representatives from academia, civil society, SMEs, and local authorities.

Common discussion points included:

- local biomass potential,
- cross-sectoral coordination needs,
- and stakeholder expectations.

Each meeting concluded with agreement on next steps and a shared interest in future collaboration.

Across all regions, the first MTF Progress Meetings followed a common structure and addressed several core themes, such as:

- The familiarisation of members with the RIBES project and its overall framework.
- The presentation of the RIBES project, its objectives, and the purpose of the regional Multi-Actor Transformative Forums.
- The introduction of regional MTF members, including a discussion of their roles and expected contributions.
- The initial mapping of regional challenges and opportunities related to circular bioeconomy development.
- An exchange of good practices, showcasing local bio-based initiatives and innovation cases.
- The identification of barriers to stakeholder engagement, value chain coordination, and biomass utilisation.
- An open discussion on expectations, communication preferences, and future participation modalities.

Key outcomes included:

- Strong interest from participants in maintaining engagement throughout the project.
- Identification of gaps in awareness, stakeholder coordination, and policy alignment.
- Recognition of the need to mobilise underused biomass streams and create cross-sector synergies.
- Agreement on follow-up actions, including the update of stakeholder databases and planning of upcoming workshops.

3.1 Region of North Aegean

The 1st MTF Progress Meeting for the North Aegean was held online on 25 September 2024, with 14 participants from academia, development agencies, civil society and local business actors. The session introduced the RIBES project, presented regional good practices, and initiated dialogue on bioeconomy challenges in the islands.

3.1.1 Key points and findings

- Acquaintance among MTF members
- Opportunities, major challenges and good practices of circular bioeconomy and main stakeholders identified
- Promotion of proposed solutions to investors through the network of Regional Development Agencies of North Aegean
- Continuation of networking activities and informing producers at regional and national levels agreed

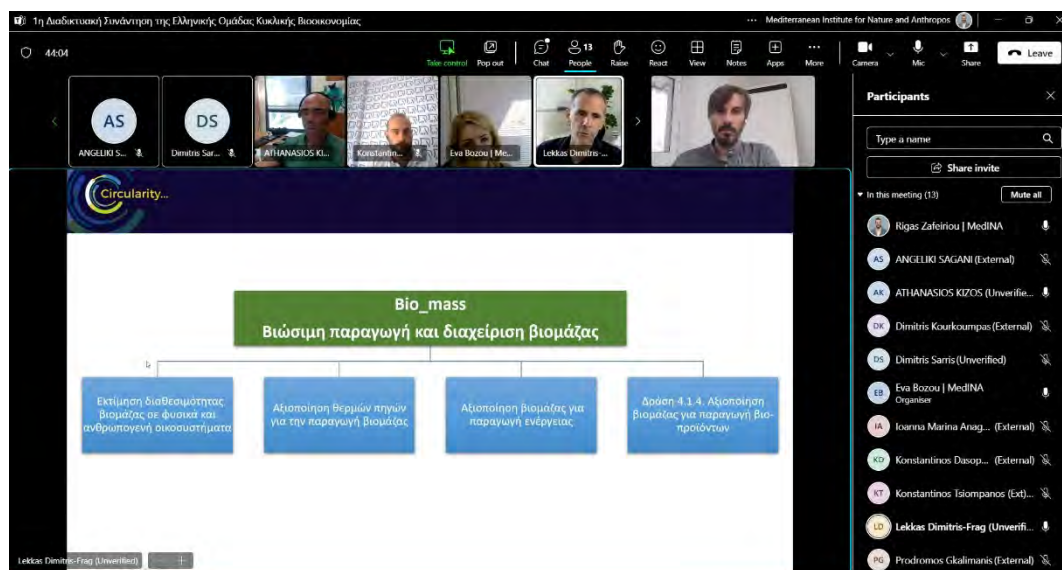


Figure 4: Screenshot from the 1st MTF Progress Meeting in the North Aegean Region (25 September 2024, online)

3.2 Region of Plovdiv

The 1st MTF Progress Meeting in the Plovdiv region was held in person on 10 September 2024 at AUP, with the participation of six MTF members and the MTF manager. The meeting introduced the RIBES project and the Bulgarian MTF and provided a short presentation of the bioeconomy situation in the region. Participants also shared examples of good practices and exchanged ideas on how to support local bio-based development through the MTF format.

3.2.1 Key points and results

- Clarification of MTF member roles and exchange on sister projects and potential synergies.
- Good cases of bioeconomy and main players identified
- Local bio-based value chains have been discussed (Cupffee) and related food-sector value chains.
- Recognition of key players and challenges in the regional bio-based economy.



Figure 5: Photo from the 1st MTF Progress Meeting in the Plovdiv Region, held at AUP (10 September 2024)

3.3 Region of Pannonian

The 1st MTF Progress Meeting for the Pannonian region was held online on 30 September 2024 with nine MTF members and representatives from EIHP and the Ministry of Agriculture. The session focused on the introduction of the RIBES project and the Croatian MTF, as well as an initial overview of bioeconomy priorities in the region.

3.3.1 Key points and results

- Initial value chains have been discussed
- EIHP proposed a bioenergy chain based on agricultural and forest biomass
- The ministry of Agriculture will deliver some recent studies about the development of value chains in the Pannonian region
- It was proposed to inform Local Action Groups about the bioeconomy through a workshop (what it is and what can be financed) and about the RIBES project

- An important question was how to combine the activities of this project with the activities of the existing HUB for bioeconomy
- Digital tools that are planned to be developed within the project include platforms, a knowledge repository and support for decision makers; MTF members will be able to give feedback on which tools would be most useful to them

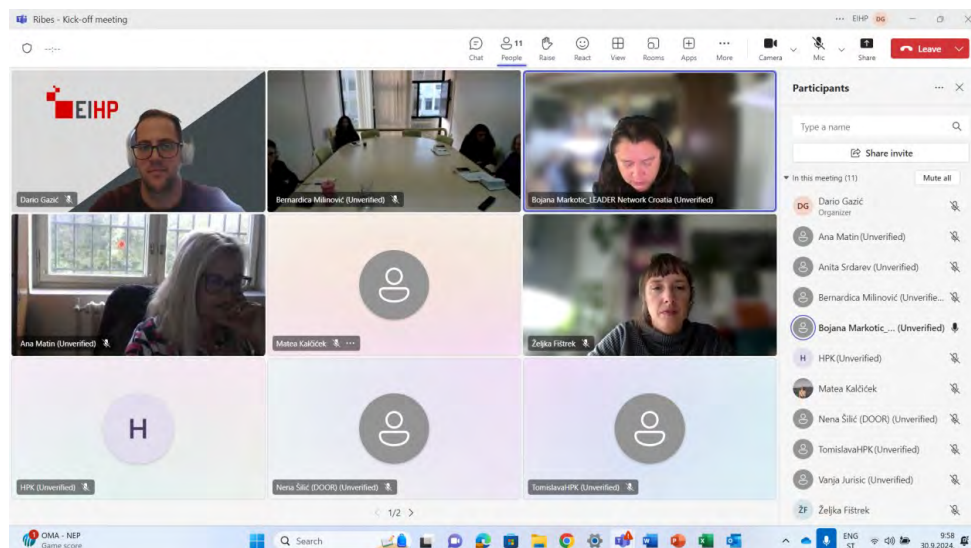


Figure 6: Screenshot from the 1st MTF Progress Meeting in the Pannonian Region (30 September 2024, online)

3.4 Region of Campania

The 1st MTF Progress Meeting for the Campania region took place online on 10 October 2024. It was attended by the MTF manager, six MTF members, and representatives from the SPRING team. The meeting introduced the RIBES project and the Italian MTF and focused on identifying local stakeholders and bioeconomy priorities in the region.

3.4.1 Key points and results

- Identification of other stakeholders to be involved, with a focus on engaging public authorities
- Discussion on the transfer of good practices of bioeconomy
- Sharing challenges, barriers and opportunities in the territory
- Promising local value chains have been identified and discussed for the development of industrial symbiosis
- Potential activities to be developed within RIBES in Campania

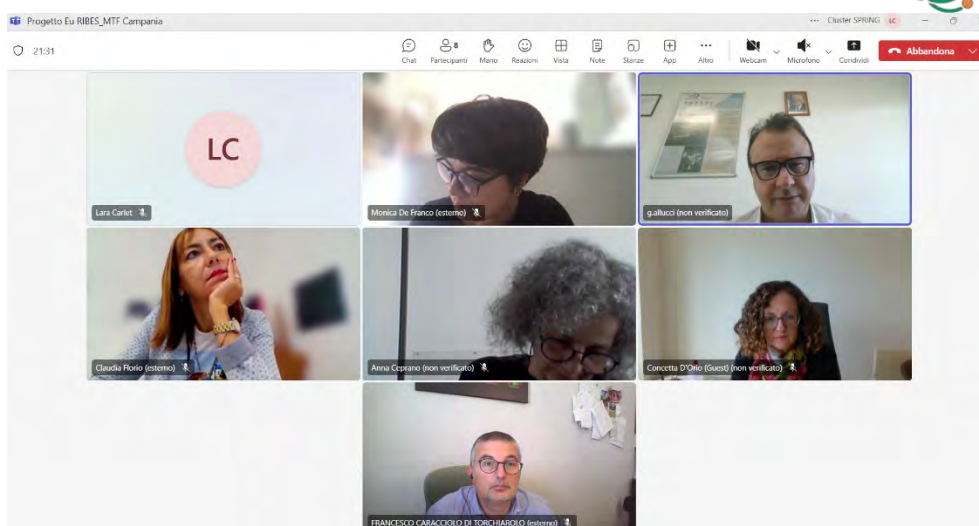


Figure 7: Screenshot from the 1st MTF Progress Meeting in the Campania Region (10 October 2024, online)

3.5 Region of Podkarpackie

The 1st MTF Progress Meeting for the Podkarpackie region took place on 25 October 2024 in hybrid format. It was attended by the MTF manager, the RRDA team, and ten MTF members. The session introduced the RIBES project, presented the forum structure, and initiated discussion on regional bioeconomy prospects and key stakeholder involvement.

3.5.1 Key points and results

- Discussion on good practices of bioeconomy in Podkarpackie Region
- Identification of barriers and opportunities in the region
- Identification of key stakeholders in the local bioeconomy
- Discussion on the prospects and further cooperation of the Forum



Figure 8: Snapshot from the 1st MTF Progress Meeting in the Podkarpackie Region (25 October 2024, hybrid)

3.6 Region of Sibiu County

The 1st MTF Progress Meeting in Sibiu took place in hybrid format on 25 September 2024 at the Lucian Blaga University of Sibiu (ULBS), gathering a total of 19 participants (11 in person, 8 online), including 9 MTF members. The meeting introduced the project framework and fostered open dialogue between scientific and practical actors in the regional circular bioeconomy ecosystem.

3.6.1 Key points and results

- Examples of practices in local bioeconomy and main players identified
- Preliminary mapping of value chains in agriculture, forestry, animal husbandry and waste
- Discussion on local challenges in CBE development
- Potential activities to be developed within RIBES in one polluted area (Copsa Mica – Mediaș) and one in traditional supply chains (Valea Hartibaciului – Hosman)
- Agreement to create thematic working groups according to members' professional experience



Figure 9: Snapshot from the 1st MTF Progress Meeting in Sibiu County (25 September 2024, hybrid)

3.7 Region of Vojvodina

The 1st MTF Progress Meeting in Vojvodina took place on 4 October 2024 in Novi Sad, at the Faculty of Technical Sciences. It was attended by 9 MTF members, the MTF manager, and 4 project team members from FTN. The session introduced the RIBES project, clarified the structure and vision of the Vojvodina MTF, and provided a general overview of bioeconomy conditions in the region.

3.7.1 Key points and results

- RIBES project topics and objectives explained and understood
- MTF members introduced themselves and defined potential roles
- Good examples of bioeconomy and innovation presented
- Bioeconomy in Vojvodina (status and prospectus) elaborated
- Suggestions for new members and definition of further steps
- Promotional material delivered
- Ongoing projects and initiatives in bioeconomy, circularity, and innovation suggested by members
- Key persons for MTF membership identified
- Conclusions highlighted the importance of institutional support, social innovation, and investment needs



Figure 10: Photo from the 1st MTF Progress Meeting in the Vojvodina Region, held at the Faculty of Technical Sciences in Novi Sad (4 October 2024)

3.8 Nitra Region

The 1st MTF Progress Meeting for the Nitra Region was held online on 25 September 2024 and gathered 11 participants, including the MTF manager, the RIBES project manager, 7 MTF members and 2 of their colleagues. The meeting introduced the RIBES project and the Slovak MTF and opened dialogue on future collaboration and value chain potential.

3.8.1 Key points and results

- Setting up co-creation process for the selection of relevant value chains and cases to be further explored
- Discussion on the initial value chains: saffron and mushrooms produced in the system of indoor vertical farming
- Discussion of ideas for the potential linkages with digitalization and social innovation aspects, as well as legislative boundaries affecting the business models
- Mapping of possible business development pathways (e.g. start-up – mentor – investor – scale-up/replication)
- Identification of priority areas such as education for young entrepreneurs and best practice sharing among MTF members

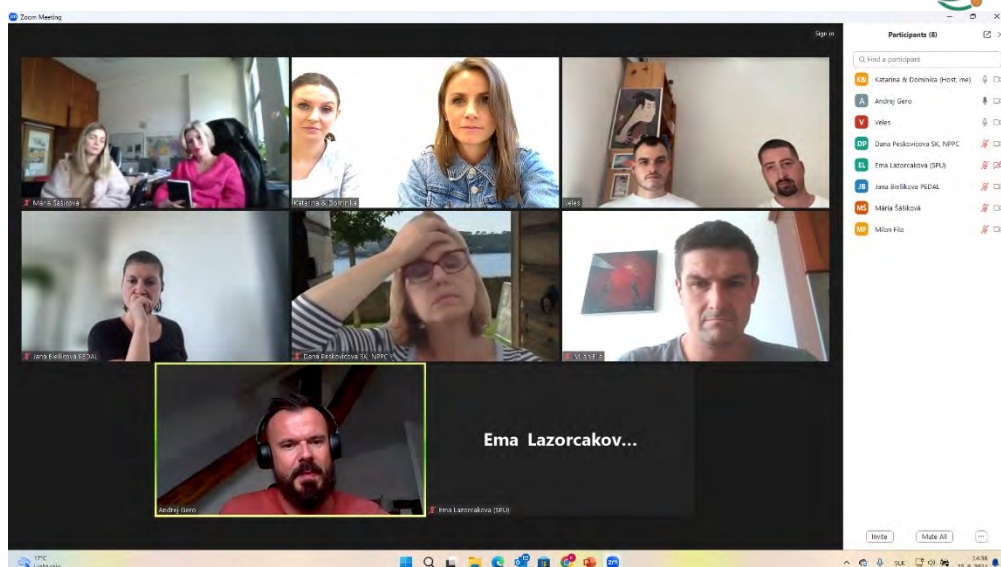


Figure 11: Screenshot from the 1st MTF Progress Meeting in the Nitra Region (25 September 2024, online)

3.9 Region of Western Balkans

The 1st MTF Progress Meeting for the Western Balkans took place online on 27 September 2024. It was attended by the MTF manager, five MTF members, and the BRDN Secretariat. The meeting introduced the RIBES project and the Western Balkans MTF and opened discussion on how the concepts of circular bioeconomy and social innovation can be applied in the region.

3.9.1 Key points and results

- Supply/value chains specific to the Western Balkans were discussed
- Good practices and social innovation cases were identified
- Key stakeholders were mapped, including farmers, processors, bio-waste entrepreneurs, and consumer research teams
- The Biohacking Lab in Skopje was presented as a regional innovation example
- Barriers to ecosystem transformation and needed policy instruments were explored
- Upcoming MTF activities were planned, including internal meetings and joint workshops

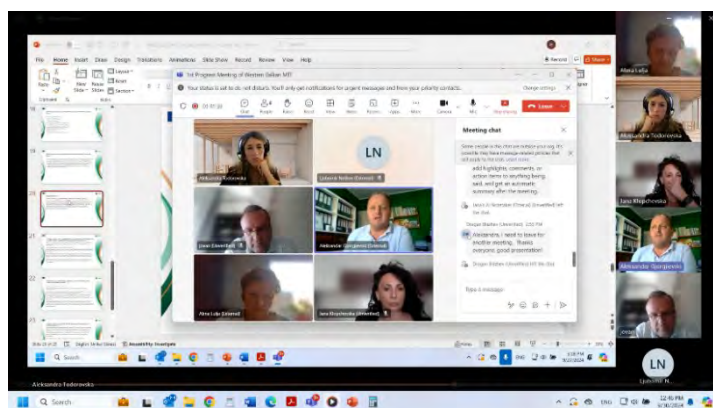


Figure 12: Screenshot from the 1st MTF Progress Meeting in the Region of Western Balkans (27 September 2024, online)

3.10 Carpathian Region

The 1st MTF Progress Meeting for the Carpathian Region was held in person on 14 March 2025, in Uzhhorod. It was attended by 14 participants, including 1 MTF manager, 9 MTF members, and 4 members of the FORZA team. The session aimed to initiate stakeholder engagement and introduce regional bioeconomy priorities.

3.10.1 Key points and results

- Defining the next meeting with a broader group of identified stakeholders and forming the MTF members
- RIBES project topics and objectives explained and understood by participants
- MTF Members Introduced. Participants presented themselves and their potential roles within the MTF outlined
- Examples from various sectors were shared to inspire local adaptation
- Stakeholders from the wood, food, and energy sectors, as well as supporting organizations, identified as crucial players in the regional bioeconomy
- Promotional material delivered



Figure 13: Photo from the 1st MTF Progress Meeting in the Carpathian Region, held in Uzhhorod (14 March 2025)

4. 2nd MTF progress meeting

The second round of MTF Progress Meetings was held during January and February 2025 (M11–M12), reflecting a consolidated effort across all nine regions to assess progress and coordinate upcoming actions. Organised either online or in person, the meetings aimed to monitor engagement progress, assess the status of stakeholder mobilisation, and coordinate the MTFs' involvement in upcoming project activities.

Participants included returning MTF members as well as newly engaged stakeholders from across the quadruple helix, reflecting the evolving composition of each regional forum.

Across all regions, the second MTF Progress Meetings followed a shared structure and focused on:

- Reflections on initial engagement experiences and member roles within the local context.
- Preparation for co-creation workshops and validation sessions planned in the upcoming project phase.
- Discussion of emerging governance and business needs in regional circular bioeconomy ecosystems.
- Identification of risks and limitations affecting stakeholder continuity and representation
- Confirmation of interest in maintaining active involvement and expanding outreach.

Key outcomes included:

- Common focus was placed on the identification, presentation, and validation of bio-based value chains tailored to each region's context.
- Several MTFs introduced new members and facilitated open dialogue among stakeholders through structured exchanges.
- Examples of innovative practices and local solutions were shared, contributing to cross-learning and future planning.
- The meetings strengthened the link between MTF activities and the upcoming co-creation work under WP4 and governance activities.
- Recurring challenges were acknowledged, especially regarding stakeholder availability and representation gaps, aligning with risks already identified in D5.5.

4.1 Region of North Aegean

The 2nd MTF Progress Meeting for the North Aegean was held online on 28 January 2025, with 21 participants from academia, public authorities, development agencies, civil society, and the private sector, including 16 MTF members. The session focused on the feasibility and potential benefits of the

value chains proposed for the region, stakeholder engagement, and upcoming steps for communication and outreach.

4.1.1 Key points and results

- Presentation of RIBES value chains.
- Discussion regarding the feasibility and the potential benefits of the value chains of the Region of North Aegean that will be examined during the implementation of RIBES.
- Familiarization, understanding and agreement about the value chains proposed by the project.
- Some challenges for the implementation of the proposed value chains were identified.
- Promotion of proposed value chains to potential investors through the network of Regional Development Agencies of North Aegean discussed.
- Continuation of networking activities and informing producers at regional and national levels was deemed as very important.

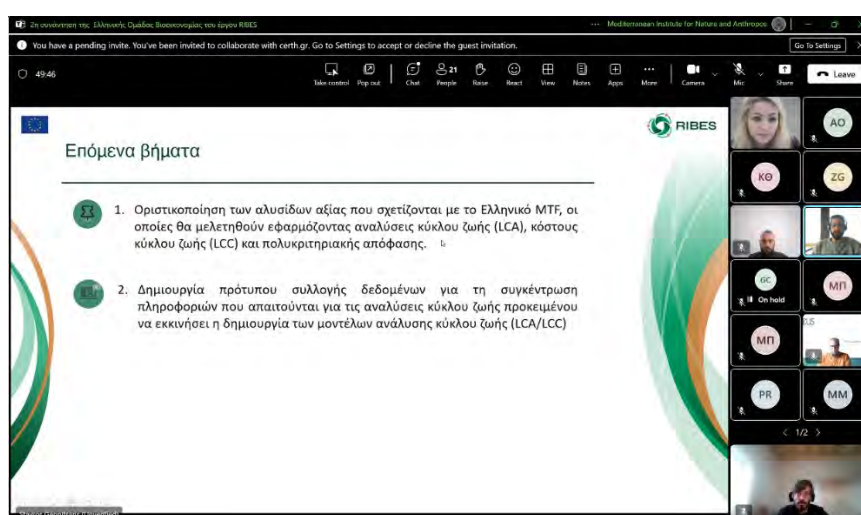


Figure 14: Screenshot from the 2nd MTF Progress Meeting in the North Aegean Region (28 January 2025, online)

4.2 Region of Plovdiv

The 2nd MTF Progress Meeting for the Plovdiv Region was held in person on 13 December 2024, at AUP Auditorium IV. The meeting brought together the MTF manager, 11 MTF members and 20 students (primer producers and farmers from the region), as well as the AUP team. The session focused on the bioeconomy profile of the region and the mapping of regional value chains.

4.2.1 Key points and results

- Presentation and discussion on the objectives of the RIBES project and the role of the MTF

- Introduction of the concept of Circular Bioeconomy and examples of good practices in the Plovdiv region
- Bio economy profile of Plovdiv region
- Mapping regional bio economy value chains
- Good cases of bioeconomy and main players identified



Figure 15: Photo from the 2nd MTF Progress Meeting in the Plovdiv Region, held at AUP Auditorium IV (13 December 2024)

4.3 Region of Panonian

The 2nd MTF Progress Meeting for the Pannonian region was held online on 21 February 2025. It brought together 14 participants, including the MTF manager, 10 MTF members, and representatives from the Ministry of Agriculture. The session included presentations on regional bioproducts and value chains and featured targeted discussion on their implementation potential at local level.

4.3.1 Key points and results

- Presentations: Bioproducts from Agricultural Biomass in Everyday Life & Innovative Value Chains Based on Agricultural Residues in Pannonian region
- Collaborative discussion on potential value chains in the Pannonian region to be examined during the implementation of the RIBES project
- Identified potential value chains in the Pannonian region through discussions and a targeted field trip to companies with the capacity to develop new bio-based value chains
- Confirmed the importance of tailoring proposed value chains to local conditions and stakeholders

- Agreed on the next steps: bringing the discussion to the local level and presenting identified value chains directly to farmers and other key stakeholders in the region
- Emphasized the need for continuous engagement, knowledge exchange, and networking to support the practical implementation of bio-based value chains

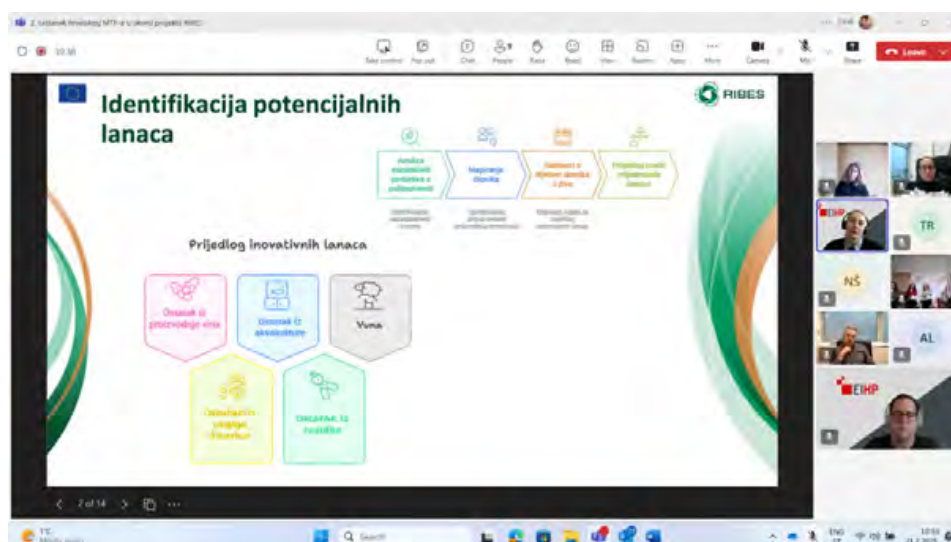


Figure 16: Screenshot from the 2nd MTF Progress Meeting in the Pannonian Region (21 February 2025, online)

4.4 Region of Campania

The 2nd MTF Progress Meeting for the Campania Region was held online on 23 January 2025. The session was attended by the MTF manager, 6 MTF members, and the SPRING team. The meeting focused on the regional scenario of the bioeconomy and the validation of selected value chains through interactive tools.

4.4.1 Key points and results

- Scenario of the bioeconomy in Campania Region and validation of the value chains
- Perspective and scenario of the bioeconomy in Campania & discussion through Mentimeter of some aspects linked to bioeconomy
- Identification of the most promising value chains of the Region starting from biomass availability and the benefits generated

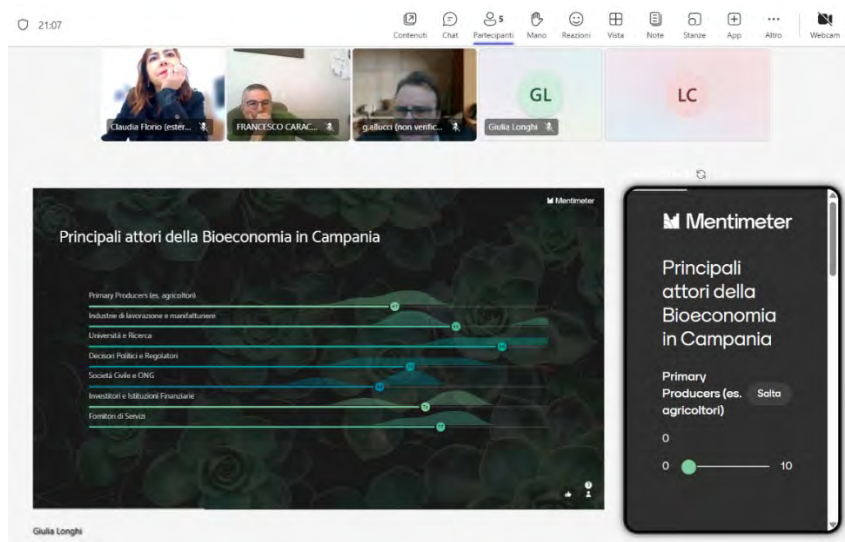


Figure 17: Screenshot from the 2nd MTF Progress Meeting in the Campania Region (23 January 2025, online)

4.5 Region of Podkarpackie

The 2nd MTF Progress Meeting for the Podkarpackie Region was held on 21 February 2025 in Rzeszów, in hybrid format. The session included the MTF manager, 8 MTF members, and 4 members of the RRDA team. The meeting focused on biogas plant concepts, local innovation, and practical solutions for circular bioeconomy in the region.

4.5.1 Key points and results

- Introduction of new MTF members (round table)
- Potential realizations of biogas plants in Podkarpackie region planned for 2025–2026
- Best practices, innovation and the Circular Economy – regional projects and solutions
- Innovative methods of water recovery
- Panel discussion
- Presentation of an innovative waste management and supply chain solution – a mobile biogas plant at prototype stage; discussion of potential implementation and scalability beyond the region
- Consideration of a biogas concept using energy recovery from selectively collected kitchen waste
- Discussion of the potential use of the innovative cellular substance in biogas and wastewater treatment chains
- Potential activities to be developed within RIBES in the next months



Figure 18: Snapshot from the 2nd MTF Progress Meeting in the Podkarpackie Region (21 February 2025, hybrid)

4.6 Region of Sibiu County

The 2nd MTF Progress Meeting for the Sibiu Region was conducted in two complementary sessions: an in-person workshop on 29 November 2024 in Agnita, and an online follow-up meeting on 20 February 2025. This two-step format allowed broader engagement with regional stakeholders and targeted discussions on both circular bioeconomy value chains and ecosystem data mapping.

4.6.1 Key points and results

Session 1 – 29 November 2024, Agnita

- Exploration of circular bioeconomy activities relevant to Sibiu County and Central Romania
- Identification of biomass logistics, supply chains, and bio-based value chains in the region
- Planning of new workshops for 2025, with the goal of adapting value chains from industrial to local/school level
- Open discussion on local resources, sustainability, and stakeholder feedback
- Example presentations included earthworm farming, biogas integration, and regional eco-museum development initiatives



Figure 19: Photo from the 2nd MTF Progress Meeting – Session 1 in Sibiu County (29 November 2024, Agnita)

Session 2 – 20 February 2025, online

- Presentation of achievements to date in the RIBES project and current status of the CBE ecosystem mapping.
- Challenges encountered in obtaining official data for Sibiu County and the Centru region were addressed in order to support data validation.
- Good practices and case studies were discussed to assess the effectiveness of the current circular bioeconomy ecosystem in Region Centru, Romania.
- Agreement on follow-up actions related to data collection and value chain validation.

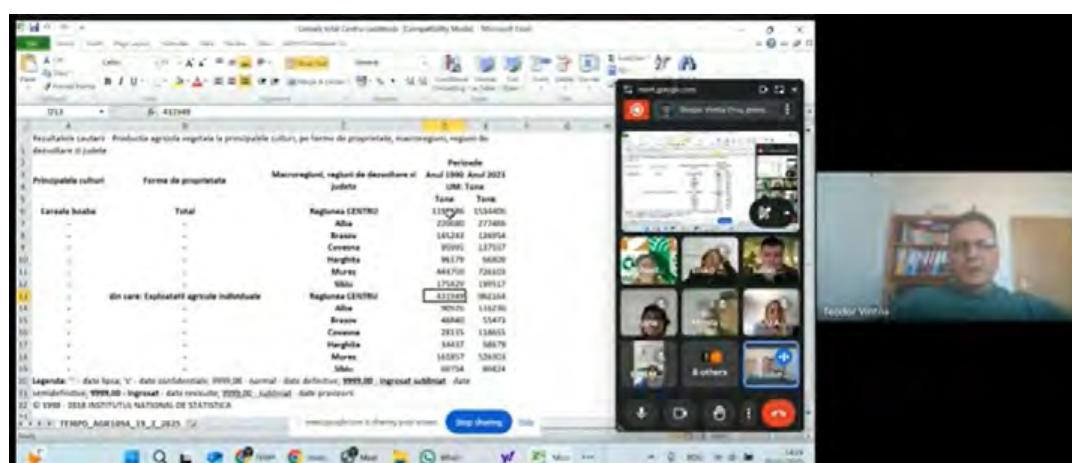


Figure 20: Screenshot from the 2nd MTF Progress Meeting – Session 2 in Sibiu County (20 February 2025, online)

4.7 Region of Vojvodina

The 2nd MTF Progress Meeting for the Vojvodina Region was held online on 28 February 2025. The session brought together 29 participants, including 1 MTF manager, 19 MTF members, 3 FTN team

members, and 6 additional bioeconomy stakeholders. The meeting focused on biomass potentials, the analysis of value chains, and opportunities for collaboration with other initiatives.

4.7.1 Key points and results

- Presentation – BE concept + Biomass potentials in Vojvodina & Potential biomass value chains in Vojvodina
- Brainstorming – SWOT analysis of biomass value chains in Vojvodina
- RIBES project topics and objectives presented
- Role of Bioeconomy and Social Innovation concept in Vojvodina analysed
- Biomass potentials as starting in Vojvodina suggested
- Definition of value chain term and aspects for elaboration agreed
- Perspective biomass value chains in Vojvodina presented by FTN team and analysed (pros/cons) by MTF
- Additional biomass value chains in Vojvodina suggested by MTF
- Opportunities for complementary activities of RIBES and other projects/initiatives adopted

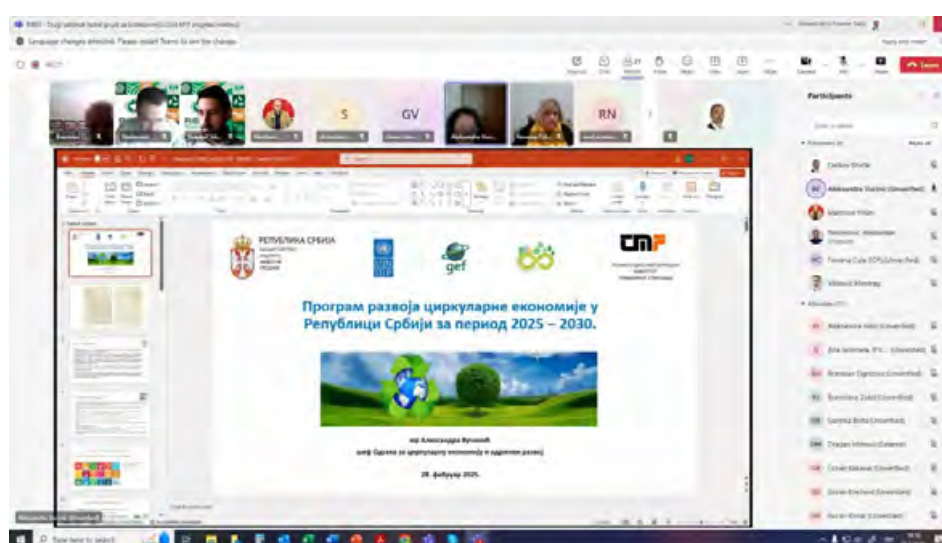


Figure 21: Screenshot from the 2nd MTF Progress Meeting in the Vojvodina Region (28 February 2025, online)

4.8 Nitra Region

The 2nd MTF Progress Meeting in the Nitra Region (Slovakia) was held in person on 18 February 2025, with 16 participants in total, including 6 MTF members and 8 regional bioeconomy stakeholders. The session focused on existing and emerging value chains, collaboration opportunities, and alignment with broader bioeconomy initiatives.

4.8.1 Key points and results

- Slovak MTF dynamics – interrelations between individual MTF members with focus on potential value chains.
- Brainstorming – innovative value chains based on agricultural residues present in the region.
- Discussion on perspective topics of MTF for future collaboration.
- Discussion on the initial value chains: saffron and mushrooms produced in the system of indoor vertical farming.
- Identification of further potential value chains based on agricultural residues present in the region.
- Discussion of ideas for the potential linkages among MTF members, brainstorming regarding the innovation, biomass availability and benefits linked to bioeconomy.
- Identification of potential future collaboration – opportunities and new calls in 2025, correlation between MTF/ RIBES and EIT Food Hub activities.



Figure 22: Photo from the 2nd MTF Progress Meeting in the Nitra Region (18 February 2025)

4.9 Region of Western Balkans

The 2nd MTF Progress Meeting for the Western Balkans was held in person on 31 January 2025, in Skopje. The meeting brought together 9 participants, including the MTF manager, project manager, and 7 MTF members. The session focused on bio-waste management challenges, stakeholder exchange, and the validation of four proposed value chains.

4.9.1 Key points and results

- Introduction of participants of the Western Balkan's MTF.
- Brief introduction of BRDN and RIBES project.
- WP3 "Co-development of social and technological solutions tailored to foster local development through CBE".
- Biomass supply logistics models.
- Suggest value chains for the Western Balkans.
- Joint discussion.
- Networking and Knowledge Exchange – Strengthened connections among MTF members and facilitated the sharing of insights and experiences.
- Discussion on Biomass and Biomass Management – Focused on the current state of biomass in the country, challenges in bio-waste management, and potential solutions.
- Validation of Proposed Value Chains – Confirmed three key value chains for biomass utilization: brewery spent grains, grape pomace, and tomato production residuals, along with an additional proposal for briquette production from grape branches.



Figure 23: Photo from the 2nd MTF Progress Meeting in the Western Balkans Region, held in Skopje (31 January 2025)

4.10 Carpathian Region

The 2nd MTF Progress Meeting for the Carpathian Region took place in person on 29 May 2025, in Khust (UA), with 16 participants including the MTF manager, 9 stakeholders, 2 local innovators, and 3 members of the FORZA team. The session focused on beekeeping as a key thematic area, exploring regional needs, value chain potential, and innovation opportunities.

4.10.1 Key points and results

- Overview of digital innovations and smart beehive technologies, presented by two local innovators, with reference to synergies with the RURACTIVE project.
- Brainstorming session to identify priority value chain areas for beekeeping development in the Carpathian region.
- Discussion on genetics, selection, and conservation of the Carpathian bee, structured around the following steps: Packages → Selective Breeding → Certification → Export.
- Exploration of cross-sectoral integration opportunities, including: Honey → Processing (e.g. Creamed Honey, Mead) → Branding → Taste Tourism.
- Local beekeepers expressed strong interest in the above directions.
- The meeting concluded with agreement on next steps:
 - Organise follow-up workshops to co-develop value chain plans and assess their suitability for the RIBES framework.
 - Expand and activate the MTF through broader stakeholder engagement in the region.



Figure 24: Photo from the 2nd MTF Progress Meeting in the Carpathian Region, held in Khust (29 May 2025)

5. 3rd MTF progress meeting

The third round of MTF Progress Meetings took place between June and July 2025 (M16–M17), marking the transition from stakeholder mobilisation to targeted engagement with governance themes. These meetings were held both online and in person across the nine RIBES regions.

Participants included active MTF members as well as newly engaged stakeholders, ensuring continuity and fresh input across the quadruple helix. Building on the outputs of previous meetings and co-creation activities, the third round focused on deepening participants' understanding of governance challenges and strengthening the connection between local realities and the RIBES project goals.

Across all regions, the third MTF Progress Meetings addressed core themes such as:

- The introduction and discussion of key governance KPIs and their relevance for evaluating institutional performance in circular bioeconomy transitions.
- Reflection on regional governance barriers, including transparency, effectiveness, and policy coordination.
- Identification of capacity-building needs and opportunities for institutional learning.
- Alignment of regional insights with the ongoing co-creation and governance activities under WP3 and WP4.
- Exchange of practices and experiences regarding multi-level governance and stakeholder participation.
- Open dialogue on how to tailor RIBES tools to regional governance contexts.

Key outcomes included:

- Increased awareness of governance dimensions relevant to circular bioeconomy innovation.
- Valuable input from stakeholders on institutional effectiveness and governance gaps.
- Shared recognition of the importance of capacity building and training in public administration.
- Agreement on continuing collaboration and contributing to upcoming WP4 and WP5 activities.
- Reinforcement of the role of MTFs as channels for local knowledge, feedback, and policy reflection.

5.1 Region of North Aegean

The 3rd MTF Progress Meeting for the North Aegean Region was held in hybrid format on 4 July 2025. A total of 20 MTF members participated both in person and online. The meeting focused on the evaluation of current governance models for circular bioeconomy and social innovation in the region.

5.1.1 Key points and results

- Familiarization and understanding of evaluation indicators of circular bioeconomy governance models
- Challenges and opportunities that can arise from biowaste management were identified and connected with citizen participation in decision-making
- Discussion of issues such as government effectiveness, rule of law and control of corruption and their relevance for circular bioeconomy
- Highlighted the necessity of creating a national strategy for the development of circular bioeconomy
- Agreement on the importance of continued networking and informing producers at regional and national levels



Figure 25: Photo from the 3rd MTF Progress Meeting in the North Aegean Region, held in hybrid format (4 July 2025)

5.2 Region of Plovdiv

The 3rd MTF Progress Meeting for the Plovdiv Region was held in person on 2 June 2025, at the Jagerhof Hotel in Plovdiv. The session was attended by 6 MTF members and the MTF manager and lasted 2 hours. The meeting focused on the evaluation of circular bioeconomy governance, the identification of development potential, and the definition of capacity-building needs in the region.

5.2.1 Key points and results

- Reviewing the methodology for assessment of the effectiveness of current CBE governance models of Plovdiv region.
- Mapping the potential for bioeconomy growth in Plovdiv region using the approach of Theory of Change (ToC).
- Define the training needs of Plovdiv region with respect to the local development of CBE.
- Reviewed methodology and executed self-assessment survey (D.4.1).
- Mapped potential for development of bioeconomy within the frame of ToC.
- Quantification of training needs in the region.



Figure 26: Photo from the 3rd MTF Progress Meeting in Plovdiv, held at the Jagerhof Hotel (2 June 2025)

5.3 Region of Panonian

The 3rd MTF Progress Meeting for the Pannonian Region was held in person on 9 June 2025 at the Energy Institute Hrvoje Požar in Zagreb. The meeting was organised as a joint networking session with national stakeholders and representatives from the BOOST4BIOEAST, BIOECO-UP, and RIBES projects. The discussion focused on the bioeconomy ecosystem in Pannonian Croatia, the validation of regionally relevant value chains, and the coordination of future bioeconomy actions.

5.3.1 Key points and results

- Value chains for the Pannonian region were identified and jointly validated with national stakeholders
- Key transformation needs in the Pannonian region were defined, forming the basis for future bioeconomy strategies
- A set of performance indicators tailored to the Pannonian region was discussed
- Synergies between actors were established to enhance coordination across initiatives
- Identification of training needs of stakeholders to help shape capacity-building activities in the Pannonian region



Figure 27: Photo from the 3rd MTF Progress Meeting in the Pannonian Region, held at the Energy Institute Hrvoje Požar in Zagreb (9 June 2025)

5.4 Region of Campania

The 3rd MTF Progress Meeting for the Campania Region was held online on 26 June 2025, with the participation of 4 MTF members, the MTF manager, and representatives of the SPRING team. The session built on the value chains discussed in the previous meeting and focused on assessing their social impact, identifying training needs, and presenting monitoring tools and project resources.

5.4.1 Key points and results

- Presentation of the three most promising value chains of the region starting from biomass availability and the benefits generated and discussion on potential social impacts
- Presentation of performance indicators for assessment the effectiveness of current CBE governance models
- Discussion on training needs of stakeholders for the local development of CBE discussed

- Introduction to the RIBES digital platform and its structure, as part of the preparation for upcoming validation and feedback processes.



Figure 28: Screenshot from the 3rd MTF Progress Meeting in the Campania Region (26 June 2025, online)

5.5 Region of Podkarpackie

The 3rd MTF Progress Meeting for the Podkarpackie Region took place in person on 30 June 2025 in Rzeszów. The session focused on the development of a regional biobased model a mobile biogas plant combined with a mobile installation for green hydrogen production. The event gathered 13 participants from the science, business, and public administration sectors and included working group sessions, presentations, and a discussion panel.

5.5.1 Key points and results

- Presentation of the concept of a mobile biogas plant combined with a mobile installation for green hydrogen production
- Legal and regulatory aspects discussed, including permits, waste management rules, patents, and certifications
- Analysis of local biomass supply chains and community-level implementation pathways
- Discussion of funding opportunities from EU and national sources for developing a prototype
- Exchange of best practices on circular economy implementation in regional and national companies
- Proposal of a regional good practice: an online marketplace and mobile app for local bio-based products
- Submission of training and study visit needs by MTF members to support future bioeconomy actions



Figure 29: Photo from the 3rd MTF Progress Meeting in the Podkarpackie Region, held in Rzeszów (30 June 2025)

5.6 Region of Sibiu County

The 3rd MTF Progress Meeting for Sibiu County was held in person on 14 July 2025 at the ULBS Teaching Farm in Rusciori, Șura Mică. The event gathered 62 participants, including 16 MTF members, and focused on the evaluation of biomass availability, identification of good practices, and governance needs for circular bioeconomy and social innovation in the region.

5.6.1 Key points and results

- Informing MTF members, stakeholders and audience regarding the general progress of the project
- Validated results regarding the availability of biomass from agricultural, animal husbandry, forestry and sludge from wastewater treatments, for Sibiu County
- Good practices for the regional bioeconomy have been identified, discussed and scored for the needs of Sibiu County based on principles of community at practice
- The existing governance approaches in the nexus of CBE and social innovation have been discussed, assessed and scored



Figure 30: Photo from the 3rd MTF Progress Meeting in the Sibiu Region, held at the ULBS Teaching Farm in Rusciori (14 July 2025)

5.7 Region of Vojvodina

The 3rd MTF Progress Meeting for the Vojvodina Region was held in person on 20 June 2025 in Novi Sad. The meeting included 6 MTF members and representatives of the FTN project team. It focused on the finalisation of tailored biobased solutions for the region and the identification of related challenges, strategies, and training needs.

5.7.1 Key points and results

- RIBES project topics and objectives recapitulated
- Tailored biobased solutions for Vojvodina finalized
- Key challenges for realization of defined biobased solutions and related strategies elaborated
- Performance indicators for assessment of the effectiveness of current CBE governance models in Vojvodina discussed
- Training needs of stakeholders for the local development of CBE discussed



Figure 31: Photo from the 3rd MTF Progress Meeting in Vojvodina, held in Novi Sad (20 June 2025)

5.8 Nitra Region

The 3rd MTF Progress Meeting for the Nitra Region was held in person on 5 June 2025 in Horné Lefantovce, Slovakia. The session was organised as part of a broader national networking and synergies workshop, with the participation of 5 MTF members and 27 additional stakeholders from the Slovak bioeconomy community. Discussions focused on the validation of value chains, regional transformation needs, and cross-sectoral collaboration opportunities.

5.8.1 Key points and results

- Discussion about the results of survey on CBE ecosystem (WP2) and further elaboration on regional transformation needs in bioeconomy
- Validation of regional bio-based solutions and value chains for further analysis within the project
- Identification and discussion of good practices in individual bio-based solutions and establishment of synergies between actors



Figure 32: Photo from the 3rd MTF Progress Meeting in Nitra, held in Horné Lefantovce (5 June 2025)

5.9 Region of Western Balkans

The 3rd MTF Progress Meeting for the Western Balkans was held in hybrid format on 26 June 2025 in Skopje, North Macedonia. The meeting gathered 5 MTF members: 3 in person from North Macedonia, and 2 online – 1 from Bosnia and Herzegovina and 1 from Albania.

5.9.1 Key points and results

- Final conclusion on biobased solutions that will be developed in WB within RIBES
- Agreement was reached on three bio-based solutions to be proposed for development in the Western Balkans:
 1. Biogas production from animal manure and agricultural residues
 2. Extraction of pectin and polyphenols from grape pomace
 3. Composting of food waste to produce organic fertilizers and soil substrates
- The RIBES platform was presented, and high interest was expressed among the MTF members
- Validation of survey results, data of CBE ecosystem map
- Set up performance indicators to assess the effectiveness of current CBE governance models of your area
- Define the training needs of the region with respect to the local development of CBE
- The MTF members agreed to provide individual inputs by June 30 on:

1. Performance indicators
2. Survey result validation
3. Training needs for CBE advancement in the Western Balkans



Figure 33: Photo from the 3rd MTF Progress Meeting in the Region of Western Balkans (26 June 2025, hybrid)

6. Conclusion points and next steps

During the first half of the RIBES project, significant progress was achieved in the establishment and activation of the Multi-Actor Transformative Forums (MTFs). A total of **155 stakeholders** across 10 regions joined the MTFs, exceeding initial engagement targets. The forums have progressively evolved into dynamic regional platforms, offering a space for inclusive deliberation, knowledge sharing, and innovation co-creation.

Three rounds of MTF Progress Meetings were conducted across all regions:

- The **1st MTF Progress Meetings** (Sep–Oct 2024) introduced the RIBES framework and mapped key regional challenges.
- The **2nd MTF Progress Meetings** (Jan–Feb 2025) focused on stakeholder interaction and the mapping and identification of potential bioeconomy value chains tailored to regional contexts.
- The **3rd MTF Progress Meetings** (June–July 2025) focused on the introduction of governance KPIs, exploration of training needs and reflection on regional governance barriers, and alignment of local insights with co-creation activities.

The consistent use of hybrid formats enabled wider participation and supported continuity and inclusiveness across MTF activities.

Across the three MTF meetings, several key insights have emerged:

- Sustained stakeholder interest in participating throughout the project lifecycle, with emphasis on practical outcomes and regional relevance.

- Identification of region-specific value chains and bio-based opportunities tailored to local capacities and needs.
- Recognition of common challenges, such as:
 - ✓ Weak policy alignment and regulatory fragmentation
 - ✓ Low awareness of circular bioeconomy tools

At the moment of this report, 3 MTF progress meetings and more than 155 stakeholders have confirmed their acceptance to participate to the projects' regional MTFs. Three more MTF progress meetings are about to take place by end of RIBES. The recruitment process is ongoing and will continue throughout the project's lifetime. The operation and management of the MTFs is monitored under the frame of Task 5.1 - RIBES Multi-actor Transformative Forums, by QPL. Building on the active engagement of MTFs and the rest 3 upcoming meetings, the next phase of the project will focus on:

- The co-design of regional circular bioeconomy pathways and governance mechanisms, incorporating input from MTF members through participatory methods.
- The validation and testing of RIBES tools and models, including KPIs, value chain scenarios, social assessment methodologies and business/governance templates.
- The identification of training needs and delivery of capacity-building activities, particularly for public authorities and innovation actors.
- The enhancement of cross-regional learning through joint thematic workshops and peer exchanges.
- The co-creation of the common marketing - branding models and sustainable business models for CBE.
- The continuous update and enrichment of the MTF stakeholder base, ensuring representation across all target groups.
- The systematic monitoring of stakeholder participation and contribution levels using the updated MTF Matrix tool.

ANNEXES

Annex I - Stakeholder Matrix Template

No	Region	MTF Mar	Sumar	Nam	email	position/ professi	Organisation name	Stakeholder Group	Partner Co	Ger
1	Nitra Region	19 - BEC				Senior project manager	PEDAL Consulting s.r.o.	Business entities, SMEs & consultancies	19 - BEC	Female
2	Nitra Region	19 - BEC				Assistant Professor	Slovak University of Agriculture in Nitra	Research & Academia	19 - BEC	Female
3	North Aegean	12 - MedINA				Research Engineer	CERTH	Research & Academia	8 - QPL	Male
4	North Aegean	12 - MedINA				Academic staff	Drama University	Research & Academia	8 - QPL	Male
5	Nitra Region	19 - BEC				Horizon Europe NCP for cluster 6	Slovak Centre of Scientific and Technical Information	Business entities, SMEs & consultancies	19 - BEC	Female
6	North Aegean	12 - MedINA				Gastronomy consultant / Food pr	Freelancer consultant	Social entrepreneurs and innovators	12 - MedINA	Female
7	North Aegean	12 - MedINA				Assistant Professor	University of the Aegean	Research & Academia	12 - MedINA	Male
8	Vojvodina	18 - FTN				SME Owner, Innovator	BIOELEMENTS DOO, Novi Sad	Industries & technology	18 - FTN	Male
9	Vojvodina	18 - FTN				Full Professor, Academia	Faculty of Agriculture, University of Novi Sad	Research & Academia	18 - FTN	Male
10	Vojvodina	18 - FTN				Association secretary	Klub 100P+ (Association of farmers)	Farmers, biomass owners and associations	18 - FTN	Female
11	Vojvodina	18 - FTN				SME Owner, Developer	TERMOPLIN DOO, Mladonovac	Industries & technology	18 - FTN	Male
12	Vojvodina	18 - FTN				Owner, Vine producer	Podrum Probus, Sremski Karlovci	Farmers, biomass owners and associations	18 - FTN	Male
13	Vojvodina	18 - FTN				Director	Serbian Biogas Association	Farmers, biomass owners and associations	18 - FTN	Female
14	Vojvodina	18 - FTN				Advisor, Agroeconomist	BIOECONOMY Cluster (Serbia), Subotica	Farmers, biomass owners and associations	18 - FTN	Male
15	Vojvodina	18 - FTN				CEO	Alma Mons DOO, Novi Sad	Business entities, SMEs & consultancies	18 - FTN	Female
16	Vojvodina	18 - FTN				Owner, IT Expert	SM Energy doo, Sremska Mitrovica	Industries & technology	18 - FTN	Male
17	Vojvodina	18 - FTN				Editor-in-Chief Deputy, Journalist	DNEVNIK-POLIOPRIVREDNIK AD, Novi Sad	Other	18 - FTN	Female
18	North Aegean	12 - MedINA				Professor, Chair of Department	University of the Aegean	Research & Academia	12 - MedINA	Male
19	Western Balkans	15 - BRDN				Organization, CEO	IN VIVO	Social entrepreneurs and innovators	15 - BRDN	Male
20	Western Balkans	15 - BRDN				CEO/Founder	Mama Organa BIO doo Skopje	Social entrepreneurs and innovators	15 - BRDN	Female
21	Campania	14 - SPRING				CEO	e la sicurezza del territorio	Social entrepreneurs and innovators	14 - SPRING	Male
22	Western Balkans	15 - BRDN				Associate Professor	Faculty of Technology and Metallurgy, UKIM, Skopje	Research & Academia	15 - BRDN	Female
23	Western Balkans	15 - BRDN				Technologist in a biogas plant	Vardar Bio proces	Business entities, SMEs & consultancies	15 - BRDN	Male
24	Nitra Region	19 - BEC				AKIS implementer, EU project ma	Agricultural Knowledge and Innovation Institute	Policy & decision makers	19 - BEC	Female
25	Pannonian	13 - EIHP				Associate professor	University of Zagreb Faculty of Agriculture	Research & Academia	13 - EIHP	Female
26	Campania	14 - SPRING				Head of Business & Territory Serv	SRM Studi Ricerche Mezzogiorno	Research & Academia	14 - SPRING	Male
27	Campania	14 - SPRING				Manager	BioTekNet	Research & Academia	14 - SPRING	Female
28	Western Balkans	15 - BRDN				Manager	PELAGONJA ENERGY	Farmers, biomass owners and associations	15 - BRDN	Male
29	Nitra Region	19 - BEC				Director of the Office of Project a	Slovak University of Agriculture in Nitra	Research & Academia	19 - BEC	Female
30	Campania	14 - SPRING				Professor	University of Suor Orsola Benincasa	Research & Academia	14 - SPRING	Male
31	Campania	14 - SPRING				Director	TerraFelix	Social entrepreneurs and innovators	14 - SPRING	Male
32	Pannonian	13 - EIHP				Associate professor	University of Zagreb Faculty of Agriculture	Research & Academia	13 - EIHP	Female
33	Pannonian	13 - EIHP				Senior expert	DOOR - Society for Sustainable Development Design	Civil society organisations	13 - EIHP	Female
34	Pannonian	13 - EIHP				Researcher	Energy institute Hrvoje Požar	Foresters & environmentalists	13 - EIHP	Female
35	Podkarpackie Region	16 - RARR				Auditor	Instytut Ekonomiki Rolnictwa i Gospodarki Żywnościowej	Research & Academia	16 - RARR	Male
36	Podkarpackie Region	16 - RARR				Expert	Independent expert	Research & Academia	16 - RARR	Male
37	Podkarpackie Region	16 - RARR				President of Board of Director	G&G Sp. z o.o.	Social entrepreneurs and innovators	16 - RARR	Male
38	Podkarpackie Region	16 - RARR				Assistant Professor	University of Rzeszow	Research & Academia	16 - RARR	Male
39	Podkarpackie Region	16 - RARR				Entrepreneur	Biocfield	Social entrepreneurs and innovators	16 - RARR	Male
40	Podkarpackie Region	16 - RARR				Manager	RRDA	Business entities, SMEs & consultancies	16 - RARR	Female
41	Podkarpackie Region	16 - RARR				IT Manager	RRDA	Business entities, SMEs & consultancies	16 - RARR	Male
42	Podkarpackie Region	16 - RARR				Farmer	Farmer	Farmers, biomass owners and associations	16 - RARR	Male
43	Podkarpackie Region	16 - RARR				Member of the association	European Rural Development Network	Research & Academia	16 - RARR	Male
44	Podkarpackie Region	16 - RARR				Assistant Professor	Instytut Ekonomiki Rolnictwa i Gospodarki Żywnościowej	Research & Academia	16 - RARR	Male
45	Podkarpackie Region	16 - RARR				Project manager	RRDA	Business entities, SMEs & consultancies	16 - RARR	Female
46	Pannonian	13 - EIHP				Farmer / consultant	OPG Skokic / DeMetra Ag. & Consulting	Farmers, biomass owners and associations	13 - EIHP	Female
47	Western Balkans	15 - BRDN				Professor	Ss. Cyril and Methodius University, Faculty of Agriculture	Research & Academia	15 - BRDN	Female
48	Western Balkans	15 - BRDN				Social entrepreneur/innovator	IZOREJONCE Association for sustainable development	Social entrepreneurs and innovators	15 - BRDN	Male
49	Sibiu County	17 - ULBS				Manager waste management co	Public Service for Waste Management, Environmental	Farmers, biomass owners and associations	17 - ULBS	Male
50	Sibiu County	17 - ULBS				County inspector for sustainable	County Council Sibiu	Policy & decision makers	17 - ULBS	Female

Annex II - MTF Progress Meetings (per region)

Region of North Aegean

1st MTF Progress Meeting's Report

MEETING	<i>1st Greek progress MTF meeting</i>
DATE & PLACE	<i>25/09/2024 - Online</i>
AGENDA AND ISSUES DISCUSSED	- <i>Introduction and participants' presentation (tour de table)</i> - <i>RIBES presentation (Q-Plan)</i> - <i>Greek MTF and good biobased practices of the North Aegean Region presentation (MedINA)</i> - <i>Discussion of the existing opportunities and major challenges the Region of North Aegean is facing for the development of the circular bioeconomy and how it can be supported to overcome them</i>
PARTICIPANTS	<i>The total number of participants was 14 people</i> - <i>3 professors from the University of the Aegean</i> - <i>1 person from Development Agency of Lemnos S.A. (AN.E.L. S.A.)</i> - <i>The CEO/Founder of We Go Zero</i> - <i>The President of the Winegrowers' Association of Lesbos and member of Solidarity Economy Cooperative "IFESTIO ANEMOTIAS"</i> - <i>One of the Cofounders of Sporos Regeneration Institute</i> - <i>Q-PLAN team</i> - <i>CERTH team</i> - <i>MedINA team</i>
RESULTS	- <i>Familiarization of the MTF members with the project</i> - <i>Acquaintance among MTF members</i> - <i>Opportunities, major challenges and good practices of circular bioeconomy and main stakeholders identified</i> - <i>Promotion of proposed solutions to investors through the network of Regional Development Agencies of North Aegean.</i> - <i>Continuation of networking activities and informing producers at regional and national levels agreed</i>

PHOTO	Screenshots from the online meetings are added to the relevant folder
BRIEF OVERVIEW	On 25th of September the 1st Greek MTF progress meeting took place online. 14 MTF participants presented in the meeting and both main opportunities and challenges that circular bioeconomy development faces were identified. Moreover, the MTF team identified a number of best practices that producers, the University of NA and the local government have implemented. Based on the discussion as well as the regional strategy for smart specialisation it is clear that the amount of biomass available is relatively large at the regional level and still not exploited. It was agreed to consider its utilization for energy production through the creation of energy communities. Last but not least, it was agreed that both producers, the University of the Aegean and the local government need to keep on organising and upscale actions to inform and raise public awareness about the benefits of circular bioeconomy both for the environment, economy and society.

2nd MTF Progress Meeting's Report

MEETING	2 nd Greek progress MTF meeting
DATE & PLACE	28/01/2025 - Online
AGENDA AND ISSUES DISCUSSED	- Introduction and participants' presentation (tour de table) - RIBES presentation (Q-Plan) - Presentation of RIBES value chains (CERTH) - Discussion regarding the feasibility and the potential benefits of the value chains of the Region of North Aegean that will be examined during the implementation of RIBES.
PARTICIPANTS	The total number of participants was 21 people - 2 professors from the University of the Aegean - A Waste management expert - Member of LIFE-IP CEI Greece at Green Fund - A Project Manager at Ministry of Environment - Project Manager of LIFE-IP CEI-GREECE - The Company Owner at Qgreen - Special Associate of the Ministry of Environment for the LIFE-IP CEI-GREECE - The Head of the General Directorate of Regional Agricultural Economy, Veterinary Medicine and Fisheries of North Aegean Region

	- The Head of the General Directorate of Regional Agricultural Economy, Veterinary Medicine and Fisheries of Lemnos - A Representative of the Special Management Authority of the North Aegean Operational Program - The Head of Development Agency of Lemnos S.A. (AN.E.L.S.A.) - The Head of the Directorate of Quality Schemes and Organic Farming, Greek Ministry of Rural Development and Food - The Director of Agricultural Affairs of the North Aegean, Decentralized Administration of Aegean - One of the Co-founders of the NGO "Epimilides" - The President of the Winegrowers' Association of Lesvos and member of Solidarity Economy Cooperative "IFESTIO ANEMOTIAS" - The Owner of Lemnos Mushrooms - The Owner of Aegean Organics - The Co-Founder/Owner of FOCUS Strategic Thinking Consultants PC - Q-PLAN team - CERTH team - MedINA team
RESULTS	- Familiarization, understanding and agreement about the value chains proposed by the project - Some challenges for the implementation of the proposed value chains were identified - Promotion of proposed value chains to potential investors through the network of Regional Development Agencies of North Aegean discussed. - Continuation of networking activities and informing producers at regional and national levels was deemed as very important
PHOTO	Screenshots from the online meetings are added to the relevant folder
BRIEF OVERVIEW	On 28th of January the second Greek MTF progress meeting took place online. 21 MTF members participated in the meeting and had the opportunity to learn about the two value chains that will be developed and evaluated in the Region of North Aegean Region (RoNA) during the implementation of the project. Particularly, the two value chains concern the use of prunings for the production of biogas and biochar and the use of sheep wool for the production of liquid fertilizer. Based on the discussion as well as data from the North Aegean Region, it is clear that the available amount of biomass, both in terms of prunings and sheep wool, is quite large and is not being fully exploited. It was agreed that through the implementation of these two value chains it is possible to consider its utilization for energy production as well as for improving crop fertilization. In addition, the MTF team identified some limiting factors that need to be taken into account in order to be able to pilot the selected value chains, such as transport costs between different locations and islands. Finally, it was agreed that both producers, the University of the Aegean and the local government must continue to organize and upgrade public information and awareness-raising actions. These actions must regard both the benefits of the circular bioeconomy for the environment, the economy and society as well as the financial penalties that may arise from the improper use of their waste.

3rd MTF Progress Meeting's Report

Meeting	<i>3rd Greek progress MTF meeting</i>
Date & place	<i>4/07/2025 - Hybrid</i>
agenda and issues discussed	-Introduction and participants' presentation (tour de table) - Presentation of RIBES progress (Q-Plan) -Evaluation indicators of the circular bioeconomy governance models in the Region of North Aegean (RoNA) -Identification of training needs based on the presented indicators -Discussion regarding the evaluation indicators
PARTICIPANTS	The total number of participants was 20 people -3 professors from the University of the Aegean -1 professor from the Harokopio University of Athens -The Head of the General Directorate of Regional Agricultural Economy, Veterinary Medicine and Fisheries of North Aegean Region -A PhD candidate at the Department of Environment, University of the Aegean, Waste Management Laboratory -A Scientific associate of Harokopio University -The Managing director of NGO Sporos -The Director of Agricultural Affairs of the North Aegean, Decentralized Administration of Aegean -A Representative from Petra Agricultural Cooperative -One of the Co-founders of the NGO "Epimilides" -The President of the Winegrowers' Association of Lesvos and member of Solidarity Economy Cooperative "IFESTIO ANEMOTIAS" -The Founder of FiliaRose -A Member of NGO Lesvos Solidarity Q-PLAN team CERTH team MedINA team
RESULTS	Familiarization and understanding of evaluation indicators of circular bioeconomy governance models Challenges and opportunities that can arise from biowaste management were identified and connected with citizen participation in decision-making for the development of the circular bioeconomy

	Issues such as the government effectiveness, rule of law and control of corruption and their importance were discussed. The necessity of creating a national strategy for the development of the circular bioeconomy was highlighted Continuation of networking activities and informing producers at regional and national levels was deemed as very important
PHOTO	Screenshots from the online meetings are added to the relevant folder
BRIEF OVERVIEW	<i>On 4th of July the third Greek MTF progress meeting took place hybrid. 20 MTF members participated (in person and online) in the meeting and had the opportunity to evaluate the current circular bioeconomy and social innovations governance models and practices for the North Aegean Region (RoNA). This evaluation was based on the presentation of eight social and economic performance indicators. Participants had the opportunity to actively contribute to the evaluation of the current governance models through their responses to a short questionnaire that they were asked to answer after the presentation of the eight indicators. Based on the discussion that followed on the indicators, it is clear that citizen participation in decision-making for the development of the circular bioeconomy is based primarily on their awareness of the potential social, environmental and economic risks and opportunities that can arise from biowaste management. Another issue that was discussed is the government effectiveness and its importance in addressing pollution incidents and promoting new methods of managing agricultural/livestock waste. It was agreed that it needs immediate improvement so that citizens can trust the judicial system and consider it reliable. The common final conclusion was the necessity of creating a national strategy for the development of the circular bioeconomy, the lack of which significantly hinders the overall effectiveness of public administration and affects several indicators. Finally, it was agreed that both producers, the University of the Aegean and the local government must continue and upscale awareness-raising actions. These actions must regard both the benefits of the circular bioeconomy for the environment, the economy and society as well as the legal repercussions that improper use of their waste may entail.</i>

Region of Plovdiv

1st MTF Progress Meeting's Report

MEETING	<i>1st Bulgarian progress MTF meeting</i>
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DATE & PLACE	<i>10/09/2024 – face to face</i>		
AGENDA AND ISSUES DISCUSSED	• <i>RIBES and Bulgarian MTF introduction</i> • <i>Roles and responsibilities of MTF's members</i> • <i>Interaction between MTF with sister projects</i> • <i>Short presentation of bio economy profile of Plovdiv region</i>		
PARTICIPANTS	• <i>MTF manager</i> • <i>6 MTF members</i> • <i>AUP team</i>		
RESULTS	✓ <i>Familiarization of the MTF members with the project</i> ✓ <i>Good cases of bioeconomy and main players identified</i> ✓ <i>Local bio-based value chains have been discussed</i>		
PHOTO			

BRIEF OVERVIEW	During the meeting, the MTF manager – prof. Petar Borisov, presents the project aims, tasks and activities in next 6 months. The structure of MTF was discussed and the roles of the separate members. Short presentations were made by every one in the room. The MTF manager presented sister projects and initiated discussion with the participants about the benefits. Good case of bio economy was presented – the case of CUPFFEE company, food company situated in Plovdiv region / https://cupffee.me/en/. The bio-based value chain in food industry was subject of discussion. At the final the MTF summarized the outcomes of the discussion and pointed the next steps of development of MTF in Plovdiv region.
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2nd MTF Progress Meeting's Report

MEETING	2 nd Bulgarian progress MTF meeting
DATE & PLACE	13/12/2024 – face to face, AUP, Auditorium IV
AGENDA AND ISSUES DISCUSSED	• Bio economy profile of Plovdiv region • Regional bio economy value chains
PARTICIPANTS	• MTF manager • 11 MTF members and 20 students (primer producers and farmers from Plovdiv Region) • AUP team
RESULTS	✓ RIBES – project dissemination ✓ Mapping bio economy value chains ✓ Good cases of bioeconomy and main players identified

PHOTO**BRIEF OVERVIEW**

During the meeting, the MTF manager – prof. Petar Borisov, presents the project aims, tasks and activities in next 6 months. The bio-based value chain in food industry was subject of discussion.

Mapping bio economy value chains: *The food industry has the largest share in the industrial production structure in Plovdiv region. The development of the food industry is connected a) to the favourable opportunities that the region and the city of Plovdiv provide as markets for food produce, and b) the availability of appropriate raw materials (agricultural products, fibres, etc.) coming from the adjacent rural areas. The food industry ranks first in the territory of the Plovdiv region contributing to about 30% of the total production in the region. In the branch, the highest share of food, beverages and tobacco products accounts for 24.4% of the industry's net incomes. Leading companies*

are Kamenitza AD, Crystal AD, Bella Bulgaria AD, Simid Agro EOOD, Agromil Bulgaria AD, Plovdiv-BT AD and others. Plovdiv is one of the main centres of the canning industry despite the significant decrease in production due to the decreasing permanent year-round supply of raw materials. Plovdiv region has a significant concentration of enterprises in the processing of fruits and vegetables (canning, drying). Looking ahead, the production of the canning industry is expected to grow with the expected increase in agricultural output, which will restore innovation in this area. The industry for processing of essential oils is highly developed in the SCR. In the town of Karlovo, in 1948 the Bulgarian Rose factory was established. Today, it continues to work and is the major producer of natural aromatic products - essential oils; natural distillation water; balm, salvia and other extraction products); perfumery and cosmetics; synthetic flavouring substances; perfume compositions and flaps; sauces and flavours for the tobacco industry. Due to the favourable geographic location and well-secured infrastructure, extraction and processing of essential oils in the area is extremely well developed and provides opportunities for an intensive production process tailored to the latest technology in this industry. Medical, pharmaceutical and manufacturing companies are also well represented, accounting for about 14.4% of the industry's net revenues. Priority directions are: bio- and nanotechnology in the field of medicine with applications for healthy lifestyle, accompanying diagnostics, health tourism with personalisation opportunities in the Plovdiv-rich mineral springs. Medical, pharmaceutical and manufacturing companies are also well represented, accounting for about 14.4% of the industry's net revenues. Priority directions are: bio- and nanotechnology in the field of medicine with applications for healthy lifestyle, accompanying diagnostics, health tourism with personalisation opportunities in the Plovdiv region's mineral springs. The agricultural and the food processing sectors are the leading sectors in the regional bio economy of SCR and provide opportunities for exploitation of residual biomass sources. Forest biomass potential is also relevant i.e. around 25% of Plovdiv region is covered by forests with a relatively high production capacity. It can play a role of major source of biomass used as a renewable energy source. Competitive regional bio-based products for the market are: bio-based production of herbal phyto-pharmaceutical products; rose, lavender and other oil products for plant cosmetics, pharmaceuticals; timber houses, furniture, bio-fuels; pellet production, and textiles. Rural tourism is the sector with the highest rate of return and it is capable to valorize the potential of bio economy in Plovdiv Region.

Good cases of bioeconomy and main players:

1. The case of STS cosmetics - <http://www.stscosmetics.bg>

Description of firm. STS cosmetics was established in 1990 in the town of Gabrovo, Bulgaria. It is a leading manufacturer and exporter of personal care products – toothpastes, hair dyes, shampoos, conditioners, hand creams, face creams, shaving creams and foams, aftershaves, and more. As a result of intense Research at their own laboratories, the company started the Rose Rio beauty line in the production of cosmetic products using natural ingredients such as rose, lavender, mint and other aromatic herbs produced in Bulgaria. The company has also the capacity to develop specific cosmetic series on request of the client (the so-called private brand). Most of the products are based on organic aromatic oil ingredients produced in Bulgaria. The increasing demand of aromatic herbs is drawing a new source of income for local farmers., with opportunities to start productions in marginal lands. The practice is also contributing to create high-quality

jobs in the Region. Entrepreneurs and employees follow regular training, while in-house research for the development of new products and technologies is carried out in their own laboratories.

Business model. As a result of performed intense researches at their own laboratories the innovative Rose Rio beauty programme has been created. As a part of this beauty programme innovative toothpaste with natural ingredients is produced. The combination of organic lavender water and mint oil has powerful anti-inflammatory and cooling effect. It is especially convenient for children. Another innovative practice is the production of specific cosmetic series on request of the client (the so- called private brand). Necessary biomass for the products of STS Holding includes rose, lavender, mint and other aromatic herbs, produced in Bulgaria. The oils, used in their cosmetic products have got certificate for geographical origin.

Main actors in value chain. Farmers producing aromatic plants and herbs; oil distilleries, producing aromatic oils; certifying body; the holding, organizing transportation and production; municipalities supporting farmers and producers. Farmers provide aromatic herbs to oil processing plant, owned co-operatively by group of farmers or farmer's family property when possible; oil certification is organized by distilleries; the company makes contracts with the distilleries and organizes the transport of oil to the producing plant. A special logistics is required to store and ship these materials: They are stored in fridge-containers and kept under controlled temperature.

Portfolio. Among the products offered by the company are tooth pastes, hair dyes, shampoos and hair conditioners, hand and face creams, shaving foam, aftershave lotions and others. It has its own brands in every section of cosmetics – female, male and children's.

2. THE CASE OF TOMIL HERB Ltd.

Background. The territory of Bulgaria was deeply affected by the Chernobyl disaster. The number of people suffering by thyroid gland problems (hypo- and hyper thyroid function and cancer) strongly raised. Standard pharmacy products for treatment suffering people have demonstrated harmful side effects. Bulgaria is famous with abundance of plants with strongly manifested medicinal properties and this made possible the realisation of herbal medical forms, based on traditional Bulgarian medicine. Both reasons led to development of new phytoterapeutic product Thyreostim by Tomil Herb LTD.

Description of firm and business model. Tomil Herb Ltd. was created by Dr. Milko Toshkov especially for production of herbal tablets under the recipes of his predecessors who were engaged with herbs and medicinal plants for more than 120 years. The company produces over 50 herbal products, each of them with strong curative effect for treating different diseases. The company has its own factory in Pazardzhik, Bulgaria, equipped with the most modern European machines and packing lines. The automated production cycle and the best herbs of Bulgaria allow Tomil Herb Ltd. to offer products with sustainable high quality for 15 years already. The products are with strong curative effect and no undesired side effects.

Main actors in value chain. Farmers producing and collecting plants for Phytotherapy. The used herbal raw materials are with excellent quality and guaranteed origin. Their collection and storing is performed under strict control and organization. The staff of the factory works under constant quality control and product purity supervision. The production cycle is fully automated.

Portfolio. Already on the markt, over 50 products based on natural of medicinal herbs, typical for the region of Rhodope mountain. The innovative is the use of Bulgarian natural plants and medicine herbs as a basis for production of Thyreostim. The owner of the business used the traditional Bulgarian medicine for developing of pharmaceutical products on its basis. Final outcome of this activity is the appearance of Natural alternatives instead of synthetic medicine on the market. It is known that natural healing products have less harmful effect. Increasing demand of the new product in the market. Increasing demand of a specific biomass for the bio-based industry. The factory manufactures products for the European market, Canada, Turkey, Macedonia, Albania, Serbia and also for several countries in the Near East and Africa.

3. THE CASE OF Cupffee - <https://www.cupffee.me>

Background and idea. If we're at home, we prefer drinking coffee in a cup made up of porcelain which is reusable. But at work we drink coffee or water in plastic or paper cups, which are harmful to the environment because each plastic cup takes up to 70-450 years to decompose. Manufacturing of each paper cup leads to emission of 0.109 kgs of CO2 in the environment. The cup which does not lead to pollution during the manufacturing process and also after it is being used should play important role. Cupffee is an Eco-friendly type of coffee cup Cupffee. Cupffee is basically a wafer cup which can be eaten after your coffee. Cupffee remains crunchy for around 60 mins which is less than the time required for consumption of coffee. The cup does not change the taste of your coffee.

Description of firm. Cupffee is an Eco-friendly type of coffee cup created by the Bulgarian startup in 2010. It is made from natural grains which makes it consumable. It can be used for both hot and cold drinks. Cupffee is a combination of a cup and food and the product is reaching more and more countries. It is available in different cup sizes and stirrers as well and preserve best its properties before 9 months from the date of production. The production of Cupffee is patented and received copyright in 2015. The innovation in the process is that it offers an alternative usage of grain and grain residues. Cupffee company got both the patent and copyright in 2015. From this business model farmer reached a new market for their production. In fact, besides coffee grains Cupffee is also using bran as a raw material. The rising market for Cupffee means rising market for farmers' production, too. Added value of Cupffee production includes not only new opportunities such as new type of market segments, but also benefits for the environment. Cupffee has a clear environmentally-friendly content – less harmful plastic waste, less CO2 emissions. The product includes specific properties – it is edible and after drinking your coffee you can eat the cup. The complete breakup of the cup takes 20 hours.

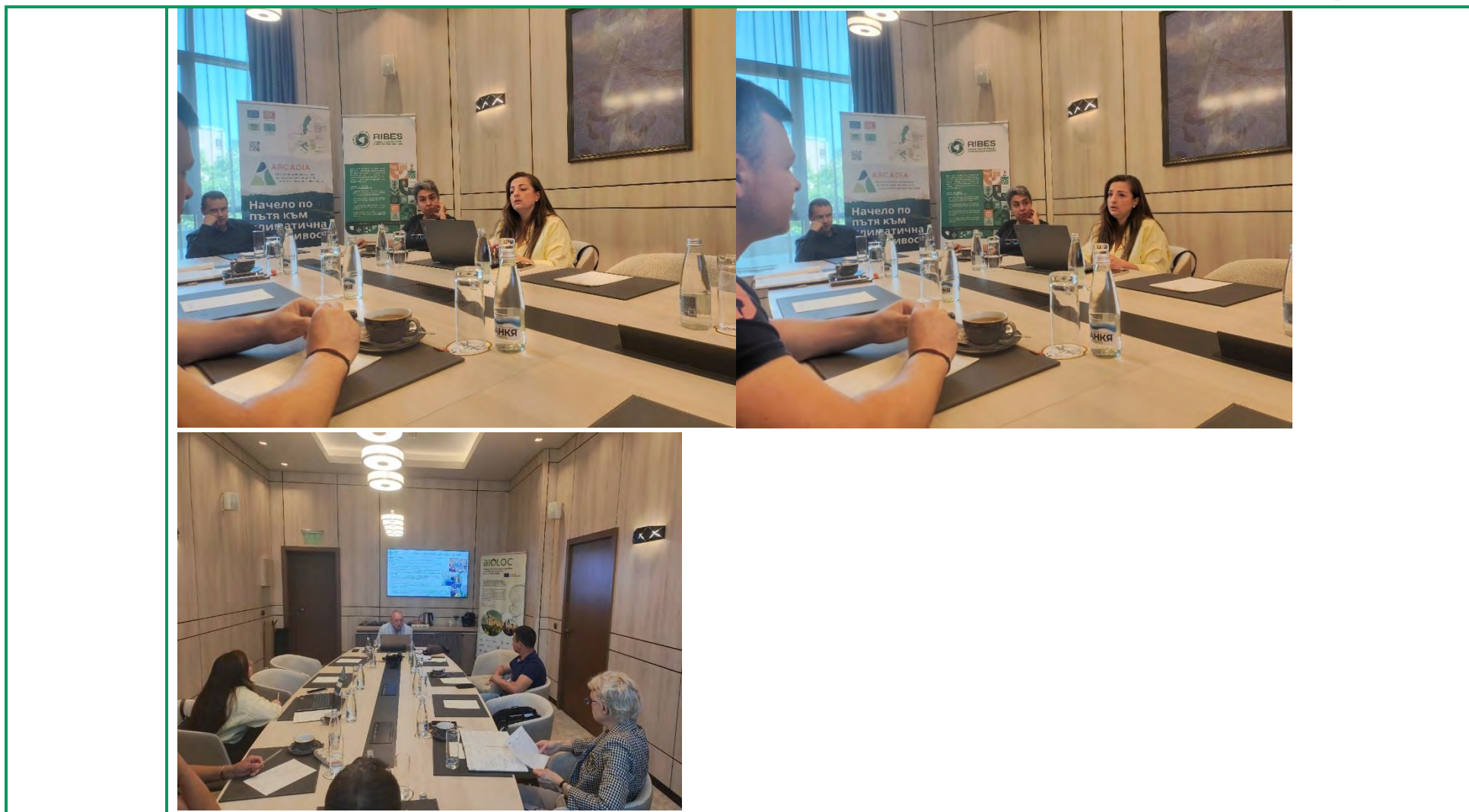
Main actors in value chain. Farmers producing grain used for Cupffee, the company patented Cupffee production, online platforms advertising Cupffee cups, municipality and other local and regional entities using the cups. Farmers produce the grain and provide the raw material; the company process the cups and distributes them in Bulgaria and outside.

Portfolio. Farmers producing grain used for Cupffee, the company patented Cupffee production, online platforms advertising Cupffee cups, municipality and other local and regional entities using the cups. Farmers produce the grain and provide the raw material; the company process the cups and distributes them in Bulgaria and outside. Final outcome of this activity is an edible crunchy cup for coffee and

	<i>other drinks. This is new product in the market, substituting plastic and paper cups. Increasing demand of Cupffee in the national as well as in the international market has been encountered. Cupffee holds a commercial potential. The owner of the startup has already decided to increase the production of Cupffee as it is getting more demands from other countries.</i>
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3rd MTF Progress Meeting's Report

MEETING	<i>3rd Bulgarian progress MTF meeting in</i>
DATE & PLACE	<i>02/06/2025 – Physical, Jagerhoph hotel in Plovdiv</i>
AGENDA AND ISSUES DISCUSSED	• <i>Reviewing the methodology for assessment the effectiveness of current CBE governance models of Plovdiv region</i> • <i>Mapping the potential for bio economy growth in Plovdiv region using the approach of Theory of Change (ToC)</i> • <i>Define the training needs of Plovdiv region with respect to the local development of CBE.</i>
PARTICIPANTS	• <i>MTF manager</i> • <i>6 MTF members</i>
RESULTS	✓ <i>Familiarization of the MTF members with the methodology and piloting it</i> ✓ <i>Conclusions on ToC</i> ✓ <i>Quantification of training needs</i>
PHOTO	<i>Photos from the event</i>



**BRIEF
OVERVIEW**

During the meeting, the MTF manager – prof. Petar Borisov, presents the topics of the agenda.

- 1. Reviewing the methodology for assessment the effectiveness of current CBE governance models of Plovdiv region.*
✓
- 2. Mapping the potential for bio economy growth in Plovdiv region using the approach of Theory of Change (ToC)*

✓ *The mapping is implemented by using the guidance, provided by BIOCOM. Here the short report on the topic:*

- 1. Context & Inputs (Current Situation, Resources, Needs). The Plovdiv region in Bulgaria demonstrates significant baseline potential for the development of a strong and diversified bioeconomy. As a NUTS-2 level region, it possesses robust structural characteristics in several key sectors foundational to bio-based value chains. The region's primary sector—especially agriculture and forestry—contributes a high share of the regional value-added. Although the overall bioeconomy share is in relative decline, the food sector remains resilient, indicating both structural strengths and sectoral dependencies.*

Plovdiv's agri-food sector plays a pivotal role in the region's economy. With the food industry accounting for approximately 30% of total regional industrial output, the sector benefits from favorable market access due to the urban demand of the city of Plovdiv, as well as reliable access to raw agricultural materials from surrounding rural areas. This solidifies the region as a core processing hub within Bulgaria's national agri-food network.

In parallel, the region benefits from a well-established and historically rooted essential oil industry, notably centered around Karlovo. The Bulgarian Rose factory, operational since 1948, exemplifies the continuity and innovation potential in natural aromatic and pharmaceutical production. Furthermore, pharmaceutical and medical manufacturing sectors are emerging as priority areas, supported by the region's growing focus on biotechnology, nanotechnology, and health tourism linked to its rich supply of mineral springs.

The forest sector also represents a key input to the bioeconomy. With over 830,000 hectares of forest area—more than 25% of the region—Plovdiv has considerable biomass reserves. These include diverse broadleaf and coniferous species, managed predominantly by state-owned enterprises and public authorities. The average annual growth of wood stock, now approaching 4.4 million m³, reflects a sustainable increase in biomass availability. Trends such as the rising stock per hectare in coniferous forests further enhance the region's potential as a provider of raw materials for renewable energy and bio-based products, including timber, pellets, and construction materials.

Despite these strengths, the region faces certain structural challenges. These include declining year-round supply of raw materials for some processing sectors, and a need for more effective monitoring of biomass flows to optimize circularity and avoid inefficiencies such as double-counting in value-added assessments. Addressing these gaps requires targeted interventions to strengthen the integration of upstream and downstream sectors, improve data collection, and foster innovation in processing and utilization technologies.

In summary, the Plovdiv region enters the bioeconomy transition phase with a rich portfolio of natural resources, established agro-industrial capacity, and emerging innovation potential. However, realizing this potential will depend on addressing data gaps, ensuring sustainable biomass use,

and enhancing value chain connectivity—especially through improved coordination across agriculture, forestry, food processing, health, and tourism sectors.

Main findings:

- “In order to measure the development of regional bio economy, one needs to calculate the bio economy shares of partly bio economy industries.”
- “The cross-region comparison in Bulgaria showed that PLOVDIV region has high value-added shares of the primary sector...”
- “Plovdiv region has a significant forest resource as biomass source – forest areas occupy more than a quarter of the region.”
- “The food industry ranks first in the territory of the Plovdiv region contributing to about 30% of the total production in the region.”
- “Due to the favourable geographic location and well-secured infrastructure, extraction and processing of essential oils in the area is extremely well developed...”

2. Outputs

Main findings

- “The food industry is the largest in industrial structure – 30% of production.”
- “Essential oil processing industry is highly developed with major producers like Bulgarian Rose factory.”
- “Forest biomass potential: 2.4 million m³, increasing stock per hectare, especially in coniferous forests.”

3. Outcomes (Short- and Medium-Term Results)

Main findings

- “The biggest contribution to the bio economy value added is from primary sectors for PLOVDIV.” “Production of the canning industry is expected to grow...”
- “Medical, pharmaceutical and manufacturing companies... priority directions are bio- and nanotechnology.
- “Trend of increasing stock of wood per hectare... with strong dynamics in coniferous forests.”

4. Impacts (Long-Term Change)

✓ *Main findings*

- “The agricultural and food processing sectors are the leading sectors in the regional bio economy of PLOVDIV...”
- “Forest biomass... can play a role of major source of biomass used as a renewable energy source.”
- “Competitive regional bio-based products: herbal phyto-pharmaceuticals, plant cosmetics, biofuels, furniture, etc.”
- “Rural tourism is the sector with the highest rate of return... capable to valorize the potential of bio economy...”

5. Summary of the Theory of Change of Plovdiv region

Level	Highlights
Inputs	Strong agriculture, food industry, forests, essential oil production
Outputs	Sectoral data, identification of high-potential industries
Outcomes	Growth in food & canning, tech-integration in pharma, biomass stock increase
Impacts	Circular bio economy, renewable energy, innovation, rural revitalization

3. Define the training needs of Plovdiv region with respect to the local development of CBE.

Under this topic the following training were addressed:

Value Chain Integration Training

- *Build understanding of upstream/downstream linkages in agriculture, food, forestry, and tourism.*
- *Promote collaboration between producers, processors, and other value chain actors.*

Biomass Flow & Circular Economy Skills

- *Equip stakeholders with tools to monitor biomass flows and apply circular economy principles.*
- *Address inefficiencies and prevent double-counting in resource use.*

Technical and Vocational Skills

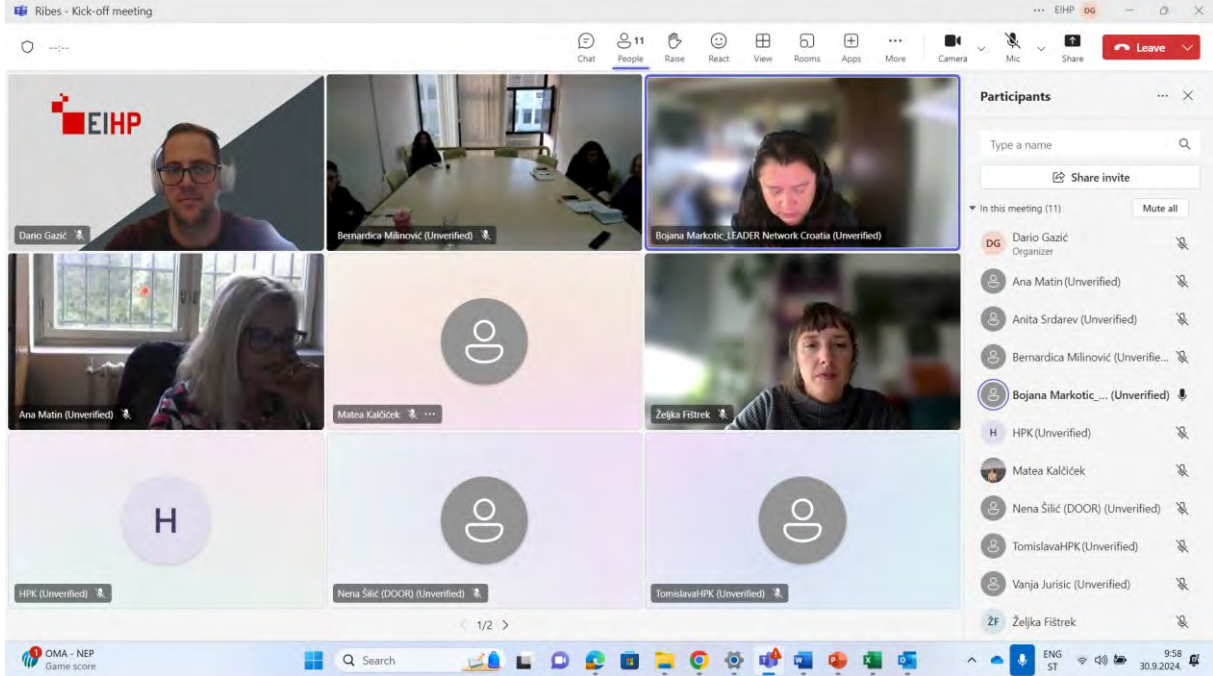
- *Train workforce in modern processing technologies (e.g., food, essential oils, herbal pharma).*
- *Address seasonal supply issues and foster innovation in traditional sectors.*

	<i>Entrepreneurship & Rural Innovation</i> • <i>Support rural actors to develop sustainable business models in bio-based tourism, crafts, and food.</i> • <i>Encourage diversification and market access for bio-based products.</i> <i>Policy & Strategic Planning Competencies</i> • <i>Build capacity among local authorities to design and implement bioeconomy policies.</i> • <i>Use spatial and economic data for evidence-based planning.</i>
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Region of Panonian

1st MTF Progress Meeting's Report

MEETING	<i>1st Croatian progress MTF meeting</i>
DATE & PLACE	<i>30/09/2024 - Online</i>
AGENDA AND ISSUES DISCUSSED	• <i>RIBES and Croatian MTF introduction</i> • <i>The roles and responsibilities of MTF members</i> • <i>Presentation of the bioeconomic profile of the Pannonian region (identification of key stakeholders of local supply chains in the bioeconomy)</i> • <i>Next steps</i>

PARTICIPANTS	• MTF manager • 9 MTF members • EIHP team • Ministry of Agriculture team (3 people who are not MTF members)
RESULTS	✓ Familiarization of the MTF members with the project ✓ Initial value chains have been discussed ✓ EIHP proposes a bioenergy chain based on agricultural and forest biomass ✓ Ministry of Agriculture will deliver some recent studies about the development of value chains in Pannonian region ✓ It is proposed to inform LAGs about the bioeconomy through a workshop (what it is and what can be financed) and about the RIBES project
PHOTO	

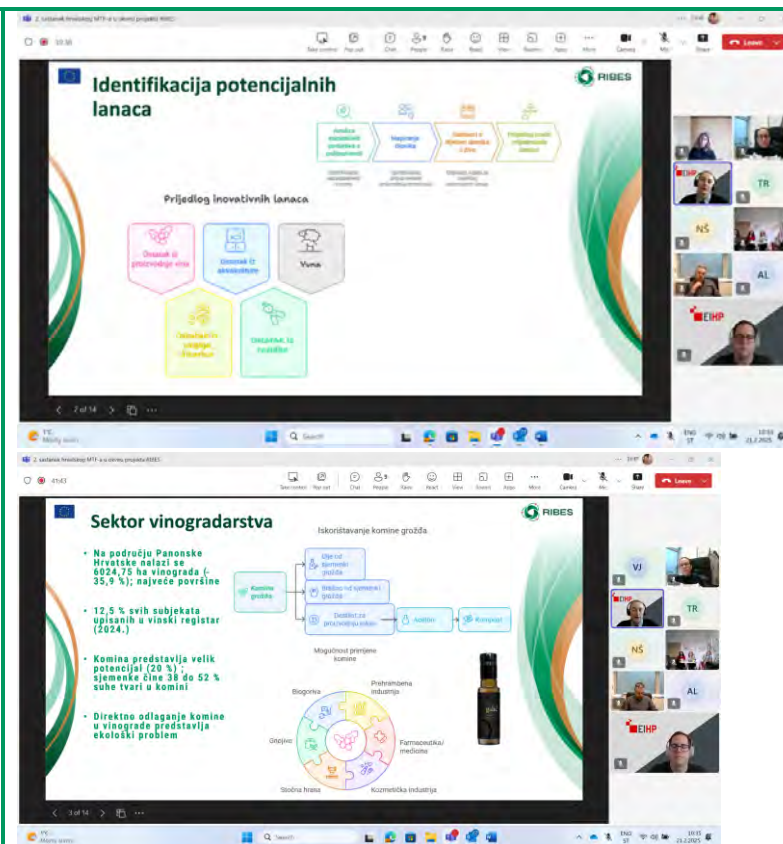
BRIEF OVERVIEW

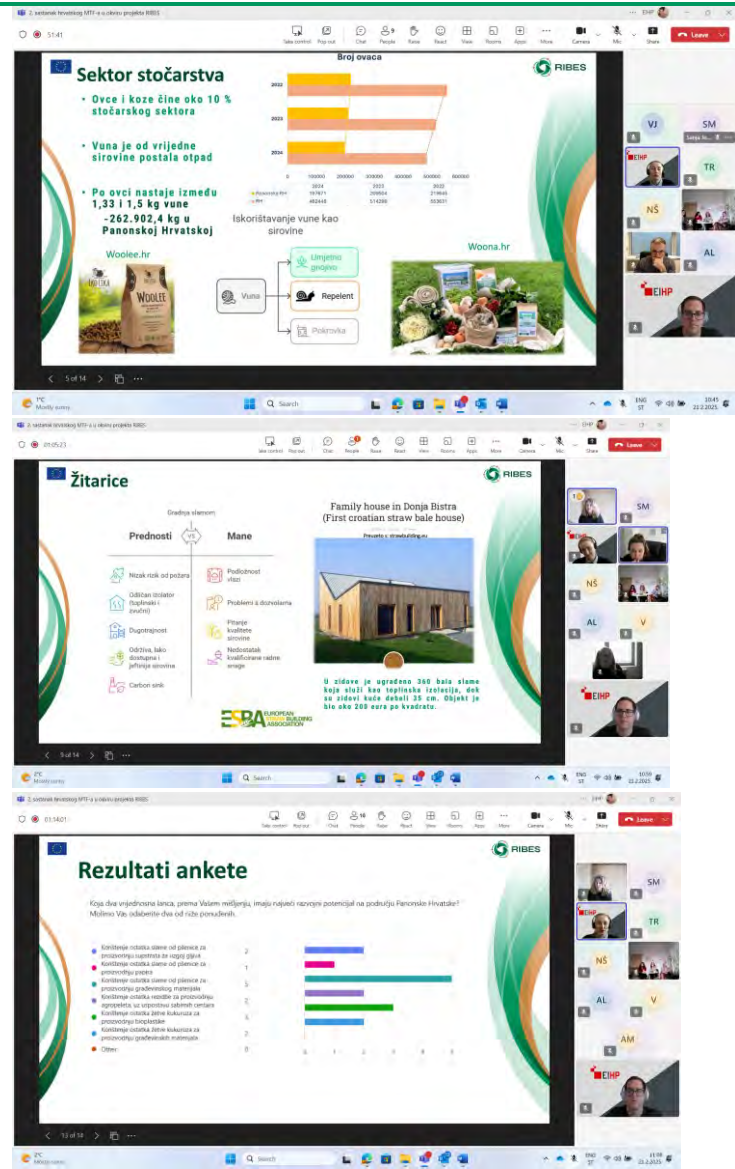
- *The Pannonian Croatia region within the project includes five Slavonia counties and Sisak-Moslavina County.*
- *Mrs. Markotić offered the possibility of sending inquiries for additional stakeholders through the LEADER network*
- *The issue of bioeconomy is very important for Croatian LAGs and is one of the key elements included in the development strategies of LAGs. This means that LAGs can finance such projects, however, LAGs have very little knowledge about the bioeconomy. Since the implementation of development strategies will begin in November 2024, it is proposed to inform LAGs about the bioeconomy (what it is and what can be financed) through a workshop.*
- *In terms of value chains, EIHP proposes a bioenergy chain based on agricultural and forest biomass. The integration of biorefineries, the production of biofuels and biochemicals and the full utilization of biomass within the circular economy make this chain crucial for the sustainable development of the region.*
- *One of the major problems related to this value chain is the large loss of biomass, especially on small plots. There is no organized collection and removal of biomass or collection and logistics centers, which is crucial for the chain to function.*
- *Research has been conducted, and based on this research, the Ministry of Agriculture has a document with suggested value chains for Pannonian Croatia, which it will share with EIHP. The Ministry will also share contacts for the food industry (obtained through HGK).*
- *Through its project, DOOR chose a value chain based on residues from the wood industry, but they encountered a lack of interest from sawmills (they are focused on the core business, weak interest in added value). They wanted to focus on connecting with the energy sector, but that didn't work out and the project got an educational component.*
- *Digital tools that are planned to be developed within the project include platforms, a knowledge repository and support for decision makers. This activity is still in its early stages, and soon the moment will come when MTF members will be able to give feedback on which tools would be most useful to them.*
- *An important question is how to combine the activities of this project with the activities of the existing HUB for bioeconomy. We need to think about how to achieve synergy between them.*
- *The next meeting will be held in January.*

2nd MTF Progress Meeting's Report

MEETING	<i>2nd Croatian progress MTF meeting</i>
DATE & PLACE	<i>21/02/2025 - Online</i>
AGENDA AND ISSUES DISCUSSED	• <i>Introduction – RIBES project & Pannonian MTF</i> • <i>Presentation – Bioproducts from Agricultural Biomass in Everyday Life</i> • <i>Presentation – Innovative Value Chains Based on Agricultural Residues present in Pannonian region</i> • <i>Collaborative discussion on potential value chains in the Pannonian region to be examined during the implementation of the RIBES project</i>
PARTICIPANTS	• <i>MTF manager</i> • <i>10 MTF members</i> • <i>Ministry of Agriculture team</i>
RESULTS	✓ <i>Identified potential value chains in the Pannonian region through discussions and a targeted field trip to companies with the capacity to develop new bio-based value chains.</i> ✓ <i>Confirmed importance of tailoring proposed value chains to local conditions and stakeholders.</i> ✓ <i>Agreed on the next steps: bringing the discussion to the local level and presenting identified value chains directly to farmers and other key stakeholders in the region.</i> ✓ <i>Emphasized the need for continuous engagement, knowledge exchange, and networking to support the practical implementation of bio-based value chains.</i>

PHOTO





Sektor stočarstva

• Ovce i koze čine oko 10 % stočarskog sektora

• Vuna je od vrijedne sirovine postala otpad

• Po ovci nastaje između 1,33 i 1,5 kg vune -262.902,4 kg u Panonskoj Hrvatskoj

Woollee.hr

Iskorištavanje vune kao sirovine

- Ujnjena gradnja
- Repetent
- Polimnita

Woolna.hr

Žitarice

Gradnja stambenih

Prednosti

- Nizak rok od postave
- Odoban izdaci (doprinosi)
- Dugotrajnost
- Održiva, kako strukturalno i jeftinije izvođenje
- Čvrstost zidila

Mane

- Pudžnost zidila
- Problemi s dovlaženjem
- Prijava kvaliteta zidila
- Nedostatak kvalitetne radne snage

Family house in Donja Bistra (First croatian straw bale house)

Projekt: v. Branković

U zidare je ugrađeno 380 bala stame koje stoji kao toplinska izolacija, dok se zidovi koje deblj 35 cm. Obično je bio oko 200 eura po kvadratu.

Rezultati ankete

Koja dva vrijednija lica, prema Vašem mišljenju, imaju najviše razgovorja na području Panonske Hrvatske? Molimo Vas odabrati dva od niza ponuđenih.

Lica	Broj glasova
Konferencija istraživača otkriva od planirane za promicanje razvoja i na ovaj glava	2
Konferencija istraživača otkriva od planirane za promicanje razvoja	1
Konferencija istraživača otkriva od planirane za promicanje razvoja i na ovaj glava	5
Konferencija istraživača otkriva od planirane za promicanje razvoja i na ovaj glava	2
Konferencija istraživača otkriva od planirane za promicanje razvoja i na ovaj glava	3
Konferencija istraživača otkriva od planirane za promicanje razvoja i na ovaj glava	2
Konferencija istraživača otkriva od planirane za promicanje razvoja i na ovaj glava	1
Konferencija istraživača otkriva od planirane za promicanje razvoja i na ovaj glava	0

BRIEF OVERVIEW

The meeting began with an introduction to the RIBES project and the role of the Pannonian MTF. Two presentations were given: one on bioproducts derived from agricultural biomass in everyday life and another on innovative value chains based on agricultural residues present in the Pannonian region.

Through collaborative discussions and targeted field visits to companies with the potential to develop new bio-based value chains, several key value chains were identified for the region. It was confirmed that tailoring these proposed value chains to local conditions and stakeholders is crucial for their success.

The group agreed on the next steps: to bring the discussion to the local level by presenting the identified value chains directly to farmers and key regional stakeholders. The importance of continuous engagement, knowledge exchange, and networking was emphasized as vital for the successful implementation of bio-based value chains.

Regarding the proposed value chains from the presentation:

The residues from wine production (including grape seeds): The residues can be processed into valuable products such as grape seed oil, which is rich in antioxidants and has potential in the food, cosmetic and pharmaceutical industries. Additionally, grape seed flour, acetone (a by-product of fermentation processes when making destilates) and compost can be derived from this biomass, contributing to a circular economy.

Freshwater fish residue value chain: By-products from freshwater fish, such as bones and skin, can be utilized for the production of fishmeal extraction of proteins and for collagen production. These by-products can be mainly used for pharmaceutical and cosmetic industries.

Agropellets value chain: Agricultural residues from crop production can be compressed into agropellets for energy production, helping to reduce the dependence on fossil fuels and contribute to the region's energy transition. In addition, agropellets are used as livestock feed and bedding material. This is a short-term value chain with relatively low investment requirements, making it achievable in the near future. The most important part in this value chain is to set up local collection centres.

Bioplastics from lignocellulose: The development of bioplastics from lignocellulosic materials, such as agricultural and, is a promising long-term value chain. While it requires significant investment and research, it offers a highly sustainable alternative to traditional petroleum-based plastics and aligns with global efforts to reduce plastic waste.

The wool value chain: This value chain offers several opportunities for sustainable and innovative applications. Beyond traditional textile production, wool can be processed into insulation materials for construction, biodegradable agricultural mats to prevent soil erosion, and high-quality compost due to its rich nitrogen content. Additionally, finer wool fibers can be used in the cosmetics industry for keratin extraction. Given the potential of this value chain, its feasibility and implementation will be further explored in the upcoming period.

	<i>These proposed value chains reflect the region's potential to capitalize on agricultural residues and biomass for a more sustainable bioeconomy. However, the implementation of these value chains is contingent upon the national strategy's approval, which will guide the development and action plan.</i>
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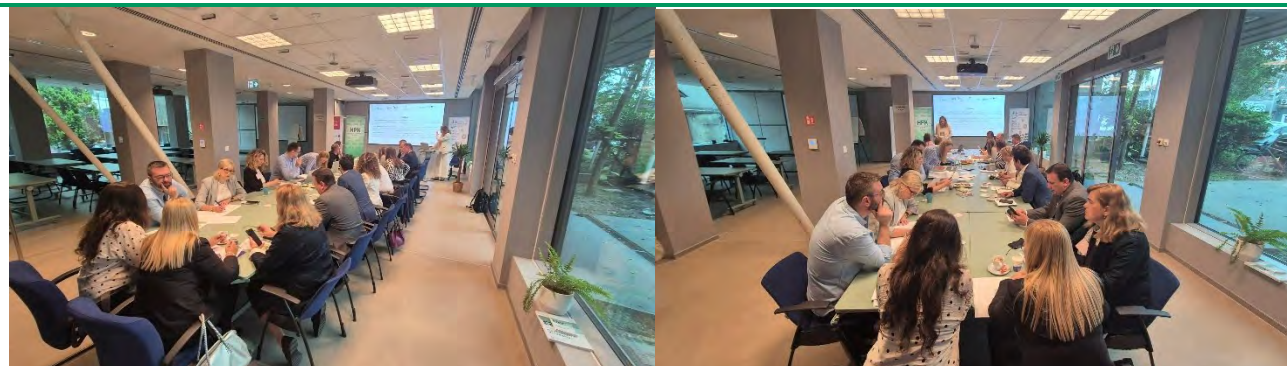
3rd MTF Progress Meeting's Report

MEETING	<i>3rd Croatian progress MTF meeting</i>
DATE & PLACE	<i>09/06/2025 – Physical meeting (Energy Institute Hrvoje Požar</i>
AGENDA AND ISSUES DISCUSSED	• <i>Joint networking event of the 3rd Croatian MTF meeting with stakeholders from the BOOST4BIOEAST, BIOECO-UP and RIBES projects.</i> • <i>Open discussion on the current bioeconomy ecosystem and value chains with high potential for Croatia.</i> • <i>Identification and selection of regionally relevant value chains (3 long-term, 2 short-term) specific to Pannonian Croatia.</i> • <i>Performance indicators for assessment of the effectiveness of current CBE governance models in the Pannonian region discussed.</i> • <i>Discussion on regional transformation needs in the bioeconomy and key challenges in implementing bio-based solutions.</i> • <i>Identification of stakeholder training needs for local bioeconomy development.</i>
PARTICIPANTS	• <i>MTF manager</i> • <i>7 MTF members</i> • <i>Ministry of Agriculture team</i> • <i>Ministry of Regional development and EU funds team</i> • <i>Institute of Circular economy team</i> • <i>Centre of Competence for Research and Development team</i>

RESULTS

- ✓ Value chains for the Pannonian region were identified and jointly validated with national stakeholders.
- ✓ Key transformation needs in the Pannonian region were defined
- ✓ A set of performance indicators tailored to the Pannonian region was discussed.
- ✓ Synergies between actors were established to enhance coordination across initiatives.
- ✓ Identification of training needs of stakeholders to help shape capacity-building activities in the Pannonian region.

PHOTO



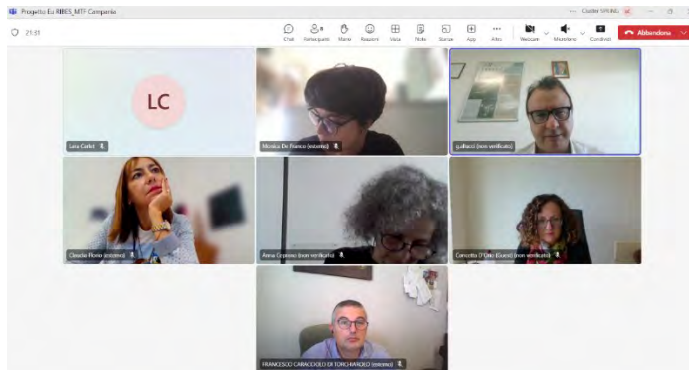


BRIEF OVERVIEW	The third Croatian MTF meeting, held on 9 June 2025 at the Energy Institute Hrvoje Požar, gathered key stakeholders from the BOOST4BIOEAST, BIOECO-UP, and RIBES projects for a joint networking and working session. The event provided a platform for an open discussion on the current state of the bioeconomy ecosystem in (Pannonian) Croatia, with a focus on identifying high-potential value chains and improving coordination among national and regional initiatives. During the meeting, regionally relevant value chains for Pannonian Croatia were jointly identified and validated. Stakeholders agreed on three long-term and two short-term value chains, selected based on their sustainability potential, feasibility, and alignment with regional strengths. This selection process was strongly rooted in participatory dialogue, reflecting the shared vision of the national ministries, regional actors, and the broader MTF community. Key transformation needs for the bioeconomy in the Pannonian region were also defined, alongside a discussion on governance challenges and bottlenecks in the implementation of bio-based solutions. A tailored set of performance indicators was proposed to assess the effectiveness of current CBE (circular bio-based economy) governance models in the region. The discussion further addressed the training needs of regional stakeholders, with the goal of shaping future capacity-building efforts and supporting the development of a skilled bioeconomy workforce. Synergies were established among participating institutions to enhance alignment across projects and policies. The meeting reaffirmed the importance of continuous engagement, shared learning, and multi-level coordination in building a resilient and sustainable bioeconomy in Pannonian Croatia.
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Region of Campania

1st MTF Progress Meeting’s Report

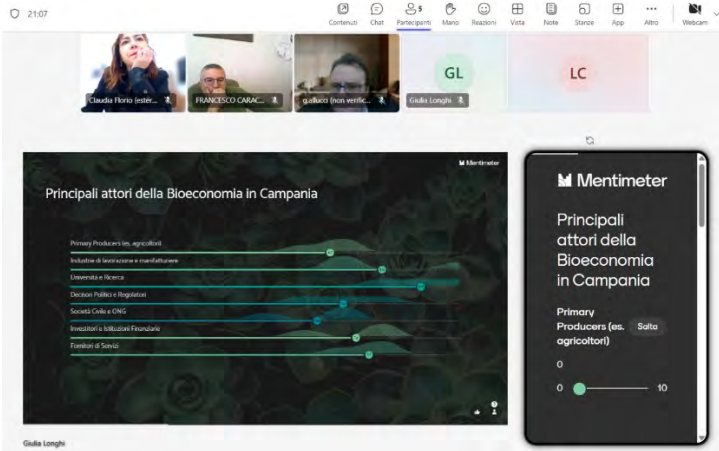
MEETING	1 st Italian progress MTF meeting
DATE & PLACE	10/10/2024 - Online
AGENDA AND ISSUES DISCUSSED	• Introduction and participants’ presentation • Presentation of RIBES project and Italian MTF • Roles and responsibilities of MTF members • Discussion:

	- Identification of crucial stakeholders of local bioeconomy supply chain - Challenges, Barriers and Opportunities in Campania • Next Steps
PARTICIPANTS	• MTF manager • 6 MTF members • SPRING team
RESULTS	✓ Familiarization of the MTF members with the project ✓ Identification of other stakeholders to be involved, with a focus on engaging public authorities ✓ Discussion on the transfer of good practices of bioeconomy ✓ Sharing challenges, barriers and opportunities in the territory ✓ Promising local value chains have been identified and discussed for the development of industrial symbiosis ✓ Potential activities to be developed within RIBES in Campania
PHOTO	

BRIEF OVERVIEW	<i>The meeting began with a roundtable of introductions, followed by a discussion on the development of the Campania MTF focused on the circular bioeconomy and combating ecomafia. Key stakeholders had already been identified, but the discussion aimed to gather further suggestions on additional actors to involve. Participants proposed including social economy actors, agro-food cooperatives involved in circular bioeconomy practices, SMEs in the sector, agricultural/forestry biomass producers, and regional institutions.</i> <i>The discussion also highlighted several challenges and opportunities for the RIBES project, such as addressing the gap between research and business by sharing best practices and providing targeted training. Participants also identified significant opportunities, such as implementing circular bioeconomy projects on lands confiscated from the mafia, fostering industrial symbiosis, and achieving environmental remediation in areas like "terra dei fuochi." Moreover, there was a strong emphasis on overcoming cultural barriers by engaging the Campania Region and the local Chamber of Commerce more actively in economic, environmental, and social initiatives.</i>
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2nd MTF Progress Meeting's Report

MEETING	<i>2nd Italian progress MTF meeting</i>
DATE & PLACE	<i>23/01/2025 - Online</i>
AGENDA AND ISSUES DISCUSSED	<i>Scenario of bioeconomy in Campania</i> <i>Validation of local value chains for biomass valorisation</i> <i>Next Steps</i>
PARTICIPANTS	<i>MTF manager</i> <i>6 MTF members</i> <i>SPRING team</i>

RESULTS	✓ <i>Perspective and scenario of the bioeconomy in Campania - Discussion through mentimeter of some aspects linked to bioeconomy</i> ✓ <i>Identification of the most promising value chains of the Region starting from biomass availability and the benefits generated</i> ✓ <i>Validation of the value chains</i>
PHOTO	
BRIEF OVERVIEW	<i>During the second progress meeting, an interactive tool (Mentimeter) was used to gather insights from local stakeholders on topics related to the bioeconomy and to better understand regional needs for fostering the transition toward a bio-based economy. The outcomes will contribute to supporting activities under WP2.</i> <i>The second part of the meeting focused on presenting the value chains identified by Spring and collecting valuable feedback from MTF members. The initial value chains were selected based on criteria such as biomass logistics, valorization pathways, and the benefits they generate.</i> <i>The criteria used to validate local value chains included: - Availability of biomass across the region (noting that some biomass is concentrated in specific areas); - Economic impact;- Generated benefits.</i> Value chains validated: <i>1. biogas production from manure and slurry generated by the buffalo industry;</i> <i>2. Biomethane and compost production from Organic Fraction of Municipal Solid Waste;</i> <i>3. Valorization of tanning industry waste.</i>

Additionally, the following value chains were considered:

- *Valorization of dairy waste for probiotic production;*
- *Valorization of olive oil waste for nutraceutical production;*
- *Valorization of agro-industrial residues;*
- *Valorization of cardoon waste.*

Although these value chains are significant and hold great potential for the region, their development is primarily concentrated in specific areas based on biomass availability.

3rd MTF Progress Meeting's Report

MEETING	<i>3rd Italian progress MTF meeting</i>
DATE & PLACE	<i>26/06/2025 - Online</i>
AGENDA AND ISSUES DISCUSSED	• <i>Main Campania value chains (from II MTF Meeting): what is their social impact?</i> • <i>Presentation of previous survey results</i> • <i>Definition of training needs for local development of CBE</i> • <i>Performance indicators to evaluate the effectiveness of CBE Governance models</i> • <i>RIBES Platform</i>
PARTICIPANTS	• <i>MTF manager</i> • <i>4 MTF members</i> • <i>SPRING team</i>
RESULTS	✓ <i>RIBES project and its objectives recap</i> ✓ <i>Presentation of the three (3) most promising value chains of the Region starting from biomass availability and the benefits generated and discussion on potential social impacts</i> ✓ <i>Presentation of performance indicators for assessment the effectiveness of current CBE governance models;</i> ✓ <i>Discussion on training needs of stakeholders for the local development of CBE discussed.</i> ✓ <i>Introduction of RIBES digital platform.</i>

PHOTO	
BRIEF OVERVIEW	<i>The third Campania progress meeting started with an overall recap of the RIBES project scope (aims and topics) and of the value chains identified in the previous progress meeting, based on criteria such as biomass logistics, valorization pathways, and the benefits they generate. In this meeting we discussed also potential social benefit that could derive from the same value chains (e.g. new jobs, new training opportunities for re-skilling). In the second part of the meeting, some key results from the WP2 survey were summarized. The main barriers in Campania to defined biobased solutions were presented to the MTF members. Consequently, some appropriate training needs for various stakeholders (young people, decision makers, managers..) that would help overcome these barriers were discussed. Performance indicators of current CBE governance models were also presented. In addition, the reflection continued on identifying other relevant initiatives and actors, particularly cooperatives and consumer organizations, to ensure a strong social impact through the project's activities. Finally, there was an introduction to the RIBES digital platform and its structure, aimed at informing MTF members about one of the project outcomes and preparing them for their role in the upcoming feedback and validation process.</i>

Region of Podkarpackie

1st MTF Progress Meeting's Report

MEETING	<i>1st Polish progress MTF meeting</i>
DATE & PLACE	<i>25/10/2024 - hybrid</i>
AGENDA AND ISSUES DISCUSSED	• <i>Welcome and presentation of the RIBES project</i> • <i>Introduction of Forum members</i> • <i>Identification of the most important stakeholders of the local bioeconomy</i> • <i>Discussion on the prospects and further cooperation of the Forum</i>
PARTICIPANTS	• <i>MTF manager</i> • <i>RRDA team</i> • <i>10 MTF members</i>
RESULTS	✓ <i>Familiarization of the MTF members with the project</i> ✓ <i>Discussion on good practices of bioeconomy in Podkarpackie Region</i> ✓ <i>Identifying barriers and opportunities in the region</i>
PHOTO	<i>Screenshots from the online meetings and photos of the physical ones.</i>



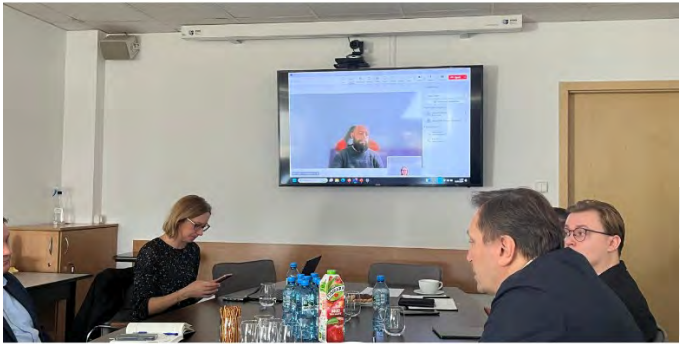
Spotkanie ekspertów MTF w ramach projektu RIBES				
piątek, 25 października 2024 11:58 — 13:56				
4 Uczestniczyli	11:58-13:56 Czas rozpoczęcia i zakończenia	1 godz. 58 min 9 s Czas trwania spotkania	1 godz. 30 min 50 s Średni czas uczestnictwa	
Uczestnicy				
Imię i nazwisko	Pierwsze dołączenie	Ostatnie wyłączenie	Czas udziału w spotkaniu	Rola
 Jakub Karp jkarp@brn-rzeszow.pl	12:03	13:56	1 godz. 52 min 49 s	Organizator
 readai mee... (Niezweryfikowany)	12:04	13:06	1 godz. 1 min 26 s	Osoba prowadząca
 Adam Wasilewski (Zewnętrzny) adam.wasilewski@brn.eu	12:04	13:22	1 godz. 17 min 31 s	Osoba prowadząca
 Tomasz Boba (Zewnętrzny) tboba@unimosaalliance.com	12:04	13:56	1 godz. 51 min 36 s	Osoba prowadząca

BRIEF OVERVIEW	<i>This was the first meeting of all MTF members, during which participants had the opportunity to learn about the objectives of the RIBES project, and to introduce themselves and exchange contacts. Key stakeholders were identified, good practices from the region in the field of biomass were presented, barriers and opportunities of the region were identified.</i>
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2nd MTF Progress Meeting's Report

MEETING	<i>2nd Polish progress MTF meeting</i>
DATE & PLACE	<i>21/02/2025 – hybrid format</i>
AGENDA AND ISSUES DISCUSSED	• <i>Introduction of new MTF members (round table)</i> • <i>Potential realizations of biogas plants in Podkarpackie region planned for 2025 – 2026 -X MTF Member</i> • <i>Best practices, innovation and the Circular Economy - Rzeszów University of Technology projects – X MTF Member</i> • <i>Cellulad - an innovative solution for biodegradation of plant residues – X MTF Member</i> • <i>Innovative methods of water recovery – X MTF Member</i> • <i>Panel discussion</i>
PARTICIPANTS	• <i>MTF manager</i> • <i>8 MTF members</i> • <i>4 RRDA team</i>
RESULTS	✓ <i>One of the MTF members presented an innovative waste management and supply chain solution - mobile biogas plant, which is currently at the prototype stage. The mobile biogas plant would be combined with green hydrogen production plant and would be offered to farmers who have problems with biowaste. MTF members considered the possibility of implementing this solution in the region, other regions and even outside Poland (the ability to scale up this solution). Mobile plant would exclude a lot problems which are connected to traditional biogas plants like the protests of the local community. In addition, the mobile temporary installation does not require environmental approvals or the need for a construction permit. Thanks to that mobile solution farmers could produce green</i>

	hydrogen on their premisses and use it in their farms instead of paying for waste utilisation. The solution have a huge potential to become innovation on EU scale. RIBES team is now working on finding potential sources financing of the project . ✓ The possibility of potential use of the solution worked out by Rzeszów University of Technology during the realization of the project: Assumptions for the development of a concept for the construction of a biogas plant with energy recovery from selectively collected kitchen waste was considered. Kitchen waste poses quite a challenge for waste collection companies. They cannot be composted due to the presence of animal waste. It is also very difficult to produce standard biosolids from them, as they are a very diverse waste. Rzeszow University of Technology is working on a special method to process this household waste so that it is already pre-processed during peeling and can be a potential intermediate product for further use, e.g. as a soil improver. RIBES team is now considering more deep analysis of potential project and commercialisation of the solution. ✓ Cellulad is an innovative solution for biodegradation of plant residues. Thanks to the bio-component, waste (e.g., cut grass) is transformed into fertilizer that fertilizes the soil in a few days. Such a solution eliminates the need to collect this waste, transport it and then compost it. Two new potential uses for biosolids emerged during the forum: - In composting plants to speed up the composting process, especially waste such as branches or roots, which extend the composting process to several months or even a year. With the use of a biocomponent, the process could be shortened to a few weeks, which would significantly reduce the cost of operating a composting plant. - In the process of wastewater treatment to accelerate the decomposition of cellulose-based waste. Cellulose in wastewater is a very difficult-to-degrade waste, making it difficult for wastewater treatment plants to use the sludge for anything other than soil improvers. RIBES team is now engaged in the process of connecting Cellulad producer with Rzeszow University of sewage treatment plants and utility companies.
PHOTO	Screenshot from the online meetings or a photo of the physical ones



Wyszukiwanie (Ctrl+Alt+E)

MTF Forum

Czat

Udziałownicy

Podsumowanie

Obecność

Prezentacja

Pytania i odpowiedzi

Statystyka spotkania

Dofinansowanie

21 lut 2025 11:27 — 14:33

Robierz

Obecność

Aktualizacja

2

Uczestniczyli

11:27-14:33

Czas rozpoczęcia i zakończenia

3 godz. 6 min 23 s

Czas trwania spotkania

3 godz. 5 min 18 s

Średni czas uczestnictwa

Uczestnicy

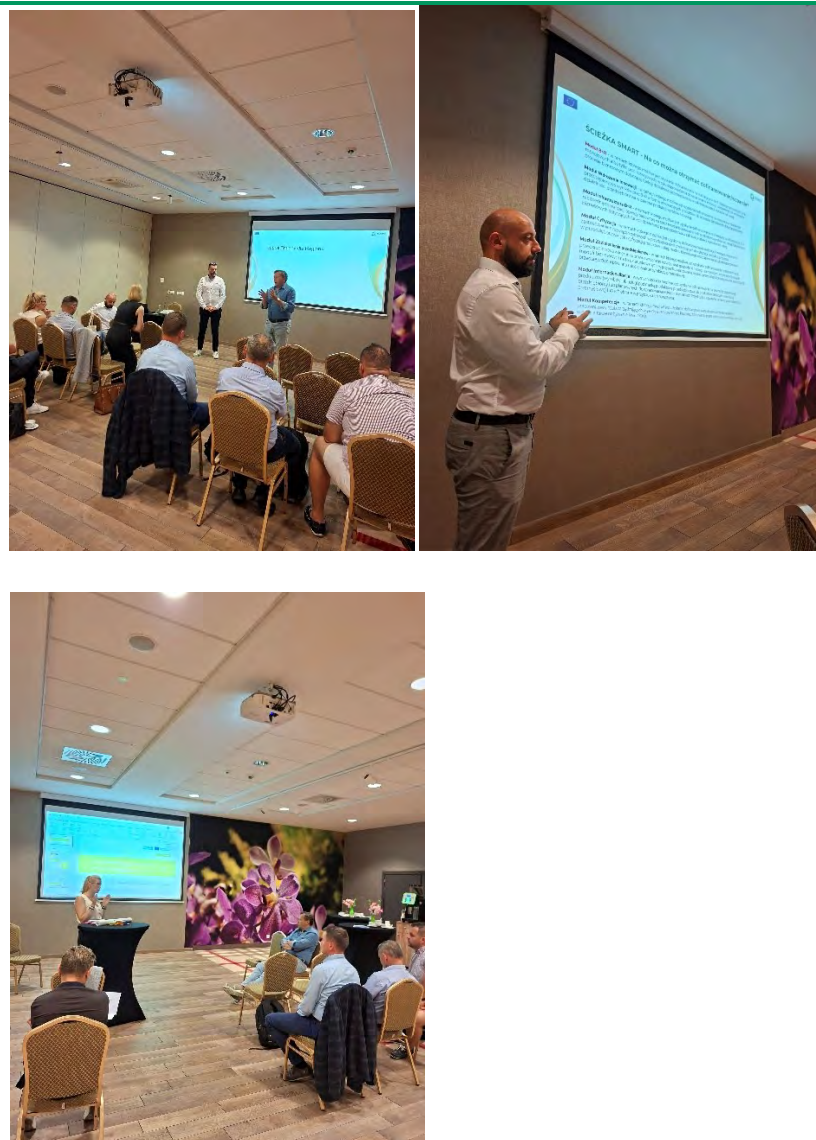
Imię i nazwisko	Pierwsze dołączenie	Ostatnie wyjście	Czas udziału w spotkaniu	Rola	Zaangażowanie
Justyna Franczyk (Planety@bion-rzeszowski)	11:28	14:33	3 godz. 5 min 30 s	Organizator	👍 🗨️ 📄 📊 📈 📉 📊 📈 📉
Justus RARE (Niezmodyfikowany)	11:28	14:33	3 godz. 5 min 6 s	Osoba prowadząca	👍 🗨️ 📄 📊 📈 📉 📊 📈 📉

BRIEF OVERVIEW	<i>It was the second MTF meeting, during which the focus was on issues related to regional supply chains and management models in the circular economy (bioeconomy), including those related to biogas plants, taking into account local best practices and projects implemented by presented during meeting key stakeholders — the Podkarpackie Agricultural Advisory Center, the Rzeszów University of Technology, and two local companies. The models proposed during the meeting will serve as a basis for further work within the RIBES project.</i>
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3rd MTF Progress Meeting's Report

MEETING	<i>3rd Polish progress MTF meeting</i>
DATE & PLACE	<i>30/06/2025 – in-person meeting</i>
AGENDA AND ISSUES DISCUSSED	• <i>Registration and welcome</i> • <i>Working group: developing the concept of a mobile biogas plant combined with a mobile installation for green hydrogen production</i> • <i>Coffee break</i> • <i>Funding for a sustainable bioeconomy</i> • <i>Impact of Circular Economy implementation on business development – CIREVALC project panel (2.3.1)</i> • <i>Discussion panel and next steps of the Forum</i>
PARTICIPANTS	• <i>MTF manager</i> • <i>10 MTF members</i> • <i>2 RRDA team</i>
RESULTS	✓ <i>One of the MTF members from Podkarpackie Agricultural Advisory Center and someone from KP Energy sp. z o.o. presented the concept of a mobile biogas plant combined with a mobile installation for green hydrogen production, its planned parameters, supply chains, and the potential target users of this solution. They also presented the possible changes that could occur in the local community as a result of its implementation. The working group analyzed the idea</i>

	<i>in terms of legal and regulatory aspects, administrative permits, waste management regulations, patents, and certifications.</i> ✓ <i>The working group discussed potential ways to engage local municipalities, farmers, and cooperatives in the initiative. A number of possible changes resulting from the implementation were identified—such as the use of local wastelands in the Podkarpackie region, as well as in other parts of Poland and Europe—highlighting opportunities for scaling the business model.</i> ✓ <i>The discussion covered support opportunities from both EU and national funds, including current calls and application conditions for biobased infrastructural project with a view to finding funding opportunities for the prototype of the solution.</i> ✓ <i>Best practices and examples of implementing circular economy solutions in regional and Polish companies were shared. The benefits of such initiatives—both environmental and business-related—were highlighted, along with conclusions from the implementation of the CIREVALC project.</i> ✓ <i>During the discussion about the RIBES project platform, MTF members suggested proposing a good practice from our region — a local online marketplace and a mobile app promoting purchases from local farmers/producers who create products from local raw materials. Through this website, direct purchases can be made. The app has been operating for several years, and its concept has been implemented in every Polish voivodeship. Link to the website (Polish language only) - https://podkarpackiebazarek.podrb.pl/</i> ✓ <i>MTF members submitted their training needs as well as their needs related to study visits in order to learn from the best existing bioeconomy solutions.</i>
PHOTO	<i>Screenshot from the online meetings or a photo of the physical ones</i>





BRIEF OVERVIEW	<i>It was the third MTF meeting, during which the focus was on proposed biobased model of a mobile biogas plant combined with a mobile installation for green hydrogen production related to regional supply chains and management model, taking into account local best practices. The models proposed during the meeting will serve as a basis for further work within the RIBES project. The outcomes of disucssion will guide future bioeconomy actions in the region and will contribute to optimization of value chains and setting up further steps towards bioeconomy development.</i>
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Region of Sibiu County

1st MTF Progress Meeting's Report

MEETING	<i>1st Sibiu (RO) progress MTF meeting</i>		
DATE & PLACE	<i>25/09/2024 Sibiu, ULBS</i>		
AGENDA AND ISSUES DISCUSSED	- 14:00-14:15	- Welcome	- ULBS, MTF
	- 14:15-15:00	- Project presentation and discussions - State of the art - Next step - Q/A	- Project manager - MTF manager
	- 15:00-15:50	- RIBES - circular bioeconomy between science and business - State of the art - Next step - Q/A	- MTF manager and MTF Sibiu

	- 15:50-16:00	- <i>Coffee break</i>	-
	- 16:00-16:30	- Wrap up of the day and Conclusions - Next step - Q/A	- <i>ALL</i>
	• <i>Biomass experts and crucial stakeholders of Sibiu County</i> • <i>Biobased practices of Sibiu county</i> • <i>Initiatives and entities that leading the field of bioeconomy</i>		
PARTICIPANTS	• <i>MTF manager</i> • <i>9 MTF members</i> • <i>ULBS team</i>		
RESULTS	✓ <i>Familiarization of the MTF members with the project and their role in the implementation of the results</i> ✓ <i>Good cases of bioeconomy and main players identified</i> ✓ <i>Initial value chains have been discussed for forestry, agriculture, animal husbandry, waste management</i> ✓ <i>Potential activities to be developed within RIBES in Mediaş and Hosman</i>		
PHOTO	<i>Screenshot from the online meetings or a photo of the physical ones</i>		



BRIEF OVERVIEW

On the 25th of September 2024, the workshop entitled First RIBES MTF Sibiu Meeting took place, starting at 14:00 o'clock. This hybrid-format workshop was held the Council Hall of the Faculty of Agricultural Sciences, Industry and Environmental Protection (ŞAIAPM) at Lucian Blaga University of Sibiu (ULBS) and online via the link meet.google.com/sjy-jeid-ehc. A total of 19 participants attended this meeting (11 in person and 8 online), 9 of whom were part of the MTF Sibiu, according to the attendance list and the automatically generated meet list attached.

In the first part of the workshop, a round table was conducted for the introduction of each participant from the following organisations:

- 1. Sibiu City Hall - Waste Management*
- 2. Landscape Architect from Hosman, Sibiu*
- 3. Landscape Architect from Hosman, Sibiu*
- 4. Food and Farm Manager at the ADEPT Transylvania Foundation*
- 5. Oradea University*
- 6. Institute of Biology of the Romanian Academy*
- 7. Apă Canal*
- 8. Apa Târnavei Mari*
- 9. Ecosal Mediaş*

After a brief introduction to the project and the purpose of the meeting realized by Mihaela Antofie, a PowerPoint presentation was delivered by Teodor Vintilă, titled "Regional Entrepreneurial Solutions, Including Bio-Based Ones." The presentation covered the following points: the structure of the project, partners, project objectives, the necessary actions to accomplish them, with a focus on the MTF's mission. It was emphasized that this group aims to provide guidance and advice to local partners, help validate results and participate in outcomes development through feedback. It was also mentioned that these members are invited to attend all the RIBES workshops as well as other meetings organized for this purpose. The benefits of being an MTF member were highlighted, such as networking opportunities, increased visibility, access to information, collaborations with relevant stakeholders, enhanced expertise in the circular bioeconomy, the chance to contribute to the promotion of rural areas, and others. It was also noted that additional stakeholders are welcome to join and become MTF members.

*This was followed by a general discussion on value chains and the need for analyzing technological flows, emissions, and their efficiency. Various examples of value chains integrated into the circular bioeconomy were mentioned. Studies already conducted by colleagues from ULBS in Copșa Mică were also referenced. These studies focused on cultivating *Miscanthus x giganteus* for the extraction of heavy metals from the soil near the polluting factories in the area.*

- 1. The representer of Sibiu City Hall - Waste Management – mentioned involvement in waste management, the need to integrate anaerobic fermentation, composting, and the challenges of implementing this technology. He **expressed** concern regarding contaminated waste and the opportunities that could be identified through the project.*
- 2. One of the representers of Landscape Architect from Hosman, Sibiu – as a landscape architect working in rural areas, she provided examples specifically related to concerns in rural areas. They already have studies initiated on this subject. She raised the issue of sheep wool, which is not being utilized, and the possibility of producing paper from grassy plant resources, not just wood.*
- 3. One of the representers of Landscape Architect from Hosman, Sibiu – as a landscape architect and ecologist, he spoke about the potential positive/negative impacts of introducing new crops (sorghum), including the reintroduction of older crops, and the integration of wetlands, which are extremely important for sustainable development.*
- 4. The Food and Farm Manager at the ADEPT Transylvania Foundation – highlighted their involvement in studying the bioeconomy at the household level and the need to protect landscapes and areas with high biodiversity value (HNV). He also mentioned that their composting activities were not successful and suggested that incentives may be needed in this regard.*
- 5. The representer from Oradea University – an expert in plant biotechnologies, expressed interest in integrating physiological studies into the study of crops relevant to the project.*
- 6. The representer of the Institute of Biology Bucharest, Romanian Academy – an expert in plant biotechnologies, also expressed interest in integrating physiological studies into the study of crops relevant to the project.*
- 7. The representer of Apă Canal mentioned that they can support the project with concrete data on wastewater treatment in Târnava Mare.*

Most participants agreed that the final step would be for the government to implement clear directives to educate rural communities, reduce resource waste, and teach people to sort waste properly, both food and non-food waste. Additionally, data regarding agriculture, animal husbandry, or forestry will be collected by colleagues from ULBS from either local or regional authorities.

	At the end of this workshop, it was decided that proposals on this topic are awaited from the members. Each participant received a cardboard folder with the project logo, containing the program, a list of terms explained, and a flyer. Discussions took place based on the list of terms, and a series of questions were addressed. Moving forward, the goal is to establish working groups on topics of mutual interest. Each MTF member expressed their willingness to participate in the analysis of value chains associated with their field of activity.
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2nd MTF Progress Meeting's Report - Session 1

MEETING	2nd Progress MTF Romania meeting - 1 Workshop "Circular BioEconomy: exploring relevant economic activities"
DATE & PLACE	29/11/2024 – Agnita City, Sibiu County
AGENDA AND ISSUES DISCUSSED	11:45-12:00 Participants registration High School August Treboniu Laurian Agnita 12:00-12:15 Welcome University Lucian Blaga of Sibiu, High School August Treboniu Laurian Agnita, City Hall Agnita 12:15-13:00 RIBES - Project presentation and discussions - State of the art - Next step Q/A Project manager, Professor Mihaela Antofie, MTF manager Associate Professor Teodor Vintilă 13:00-13:15 Coffee break & discussions 13:15-14:00 Circular bioeconomy - exploring relevant economic activities - State of the art - Next step Q/A MTF manager Teodor Vintilă, Marius Halmaghi, Civil Society Association 14:00-14:30 Wrap up of the day and Conclusions - Next step Q/A ALL

PARTICIPANTS	42 participants: RIBES team, ULBS 8 participants from local MTF representatives of Agnita Schools, City Hall, Forestry
RESULTS	✓ Identification of biomass logistics, supply chains and biobased value chains in Sibiu county in particular and central Romania in general; ✓ Planning new workshops for year 2025 and presenting value chains from industrial scale to small scale with perspective to be implemented from schools to local bioeconomy
PHOTO	Photo selection from the meeting: 



BRIEF OVERVIEW

On the 29th of November 2024, the workshop entitled Circular BioEconomy: exploring relevant economic activities took place, starting at 11:45 o` clock. This workshop took place at the August Treboniu Laurian Agnita High School, A total of 42 participants attended this meeting.

The aim of the meeting was to bring together project partners, experts and interested participants to discuss the implementation of the circular bio-economy, the valorization of local resources and the promotion of sustainable initiatives in the targeted communities. The workshop aimed to present the objectives and actions needed to achieve them, validate ideas through feedback, support farmers and local partners in adopting innovative practices and develop practical solutions that contribute to the sustainable development of the region.

The workshop was opened by Prof. Mihaela Antofie, who introduced the participants to the aims and objectives of the meeting. The event started with the presentation of the participants, followed by a lecture given by the professor. She provided information about the structure of the project partners, the objectives pursued, the actions needed to achieve them and the role of the MTF mission. The importance of the working group in providing guidance and advice to local partners, validating results and contributing to product development through feedback was emphasized.

Next, a participant gave a presentation on the project "Sibiu Regional Eco-museum", which targets six localities in Sibiu County: Săliște, Gura Râului, Moșna, Valea Viilor, Biertan and Șăușii. The aim of the project is to valorize the specific local objectives of these localities by creating tourist trails, thus promoting the cultural heritage and identity of the region.

After the coffee break, the participants were invited to fill in a questionnaire included in the registration form. The questionnaire aimed to collect participants' opinions and suggestions on the theme of the RIBES project. The activity provided a valuable insight into the participants' positions and helped to adjust the future directions of the project.

Professor Teodor Vintilă continued with a presentation on the implementation of the circular bioeconomy in the agri-food industry. Topics covered included the carbon cycle, the need to transition from the industrial age to the bioeconomy, statistics on energy consumption in Europe and the legislative framework supporting this transition. The presentation continued with examples of best practices, such as biomethane plants in Europe, biogas plants in Romania, with only two biogas plants in Centru Romania (the region approached in RIBES), the need to construct more circular bioeconomy capabilities, value chains and develop circular supply chains integrated in CBE. Teodor Vintilă concluded with a very interesting example of earthworm farming for vermicompost integrating composting of organic wastes, forestry residues and digestate from biogas plants to produce humus to rehabilitate soils.

The workshop ended with an open discussion on topics of interest proposed by the participants. Among the topics discussed were the use of earthworm farms to reduce chemical fertilizers and energy consumption, the organization of extracurricular activities in schools to promote these initiatives, information management for the implementation of the circular bioeconomy, and the creation of pilot stations to support farmers with know-how. Other important topics included the valorization of sludge in agriculture and the challenges encountered, as well as how to access European funds to support the initiatives.

The next meetings have been planned for the the next year first trimester. These sessions will continue to facilitate collaboration and support the implementation of the discussed projects.

2nd MTF Progress Meeting's Report - Session 2

MEETING	<i>2nd Progress MTF Romania meeting - 2</i>
DATE & PLACE	<i>20/02/2025, Online</i>
AGENDA AND ISSUES DISCUSSED	<i>On Thursday, February 20, 2025, the RIBES MTF Sibiu 3rd meeting started at 2:00 PM. The meeting took place online via meet.google.com/yzd-avrh-jdq.</i> <i>The purpose of the meeting was to present the achievements made so far in RIBES project, to establish sources for data collection, data validation and calculations in order to generate the CBE ecosystem map, to identify good practices and propose case studies to assess the effectiveness of current CBE in Region Centru, Romania</i>
PARTICIPANTS	<i>A total of 16 participants attended this meeting, of which 6 participants represented MTF Sibiu and 10 participants represented RIBES Sibiu team.</i> <i>The attendance list and the automatically generated Meet list attached to the documentation.</i>
RESULTS	✓ <i>challenges encountered in obtaining official data for Sibiu County and the central where addressed in order to generate the CBE ecosystem map;</i> ✓ <i>good practices and case studies to assess the effectiveness of current CBE in Region Centru, Romania where discussed by RIBES Sibiu team and local MTF representatives</i>
PHOTO	<i>Screen shots from the online meeting:</i>

WP2

- WP2 will develop baseline assessments of participating regions and will set up the conceptual framework for the co-development stage.
 - LEMA already started the base line studies and up-loaded for the following:
 - Agriculture** - **zoteachy** Julian Antonio reported from official data
 - we need to go further at the Central Region level
 - Agro-tourism** - Mirinda Sanchez reported from official data
 - we need to go further at the Central Region level
 - Forestry** - Julian Bratu - reported from official data on firewood for Sibiu county
 - we need to go further at the Central Region level
 - Waste management** - Enlio Buzgar there are some data but we need more concrete for the entire Sibiu County and go for Central region
 - we need to go further at the Sibiu County and Central Region level
 - No food industry inputsfind solutions



Next reporting from experts – by 1 of April

- Challenges
 - in obtaining official data
 - In covering all Sibiu county and Central region
 - Best examples for good practices in Sibiu county per subject
 - Data analysis – from the commission for validating data recorded
 - How MTF can further support our data analysis?



Consultă fișă cartă-județului - Județul Sibiu - Sibiu - Sibiu

Rezultate cantitative - Produse agricole vegetale la principale culturi, pe forme de proprietate, macroregiuni, regiuni de dezvoltare și județe

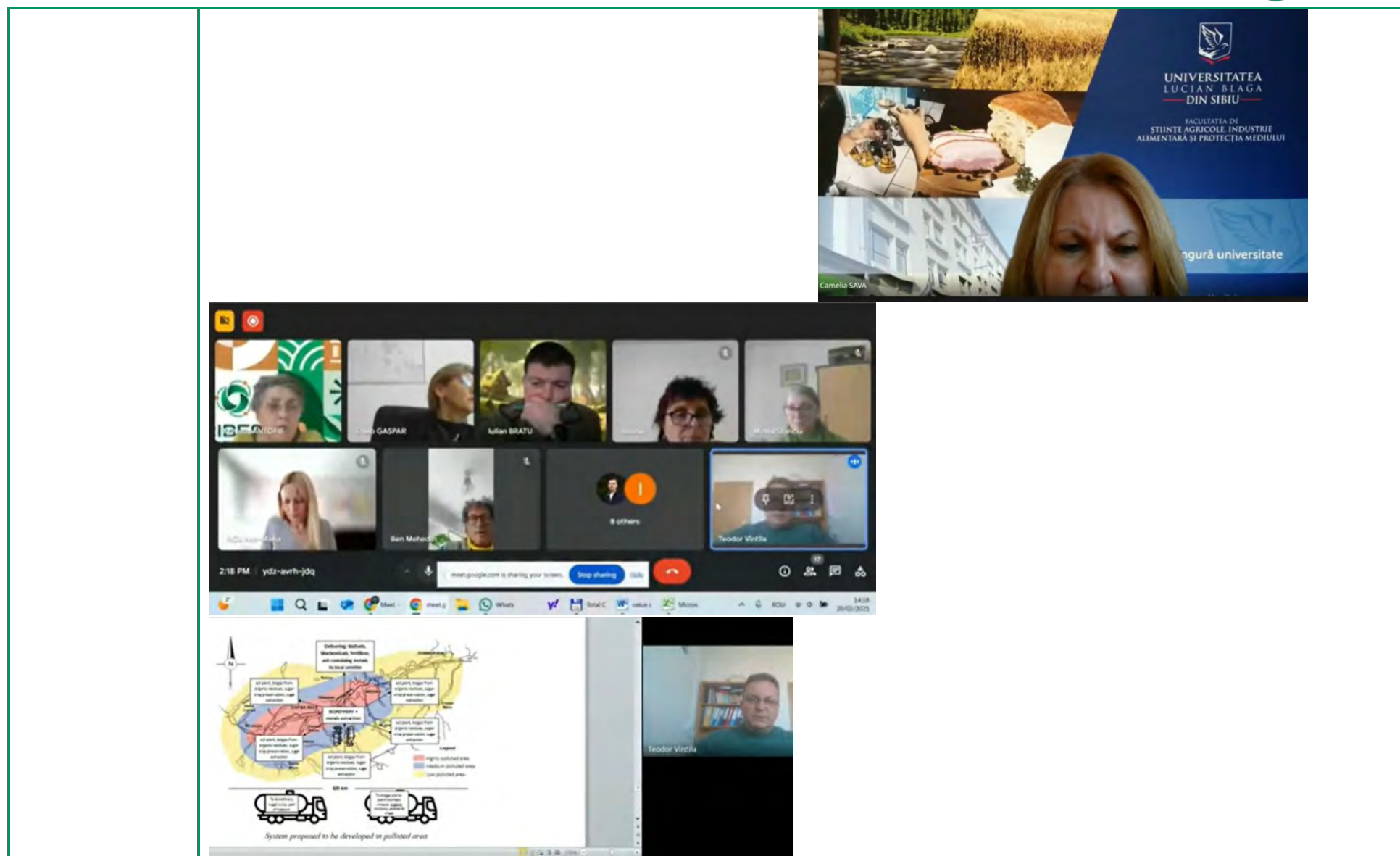
Principale culturi	Forme de proprietate	Macroregiuni, regiuni de dezvoltare și județe	Perioada	
			Anul 1990 - Anul 2021	Unit: Tona
Cereale boabe	Total	Regiunea CENTRU	118760	118760
		Alba	27500	27500
		Brașov	14242	14242
		Covasna	9191	11717
		Harghita	96179	96029
		Mureș	44476	22613
		Sibiu	175220	189127
	sin care: Exploatări agricole individuale	Regiunea CENTRU	411248	382144
		Alba	30791	114736
		Brașov	40840	15473
		Covasna	28121	114015
		Harghita	14817	14679
		Mureș	143817	126303
		Sibiu	60754	88424

Legendă: 1 - date furnizate de 1990-2001 - Anulul - date furnizate de 2002-2021 - date furnizate de 2002-2021 - date furnizate de 2002-2021

1 - date furnizate de 1990-2001 - Anulul - date furnizate de 2002-2021 - date furnizate de 2002-2021

2 - date furnizate de 1990-2001 - Anulul - date furnizate de 2002-2021 - date furnizate de 2002-2021





BRIEF OVERVIEW	<i>The aim of the meeting was to bring together project team, actors and experts to discuss the implementation of the circular bio-economy in central Romania. The discussions aimed to present the achievements made so far in RIBES project, to establish sources for data collection, data validation and calculations in order to generate the CBE ecosystem map, to identify good practices and propose case studies to assess the effectiveness of current CBE in Region Centru, Romania.</i> <i>The workshop was opened by Prof. Mihaela Antofie, who introduced the participants to the aims and objectives of the meeting. She presented the achievements made so far in RIBES project and the actions needed to achieve the main objectives of the project highlighting the role of the MTF members.</i> <i>The participants of the meeting are invited by Ms. Mihaela Antofie to present the challenges encountered in obtaining official data for Sibiu County and the central region.</i> <i>MTF member intervenes, saying that the data collected is very voluminous and the project team needs time, to mobilise resources and effort to process raw data.</i> <i>MTF member believes that the data can be obtained for all the six counties in the central area.</i> <i>MTF member can start processing the data and we can publish the results in a scientific article, mentioning that he can expand data collection from forestry to the central region.</i> <i>MTF member is going to upload the data obtained on wastewater and sludge from Tarnava and Hartibaci areas in Sibiu county to the drive, later expanding the data to other types of waste.</i> <i>MTF representatives presented the current status of the data collected from several segments of the bioeconomy:</i> • <i>MTF member(s) – Agriculture and Animal Husbandry;</i> • <i>MTF member(s) – Agrotourism;</i> • <i>MTF member(s) – Forestry.</i> • <i>MTF member(s) – Wastewater.</i> <i>With the mention that for the moment there are no inputs for the food industry.</i> <i>The team will generate a progress report at the end of February.</i> <i>Mr. Teodor Vintila takes the floor and presents two sources from which members can obtain official data more easily, namely the online database of the National Institute of Statistics (TEMPO Online) and the County Waste Collection Plan (PJGD).</i>

	<i>Ms. Mihaela Antofie comes with the request to disseminate information about the project to the communities targeted by the project's target group.</i> <i>Mr. Teodor Vintila gives a presentation of a proposed value chain to be developed in polluted areas that will not only provide the tools for a consolidated CBE, but will be a way to remediate marginal lands and provide biobased materials. The proposed circular value chain is developed in Copsa Mica area, where the soil is polluted with cadmium and lead, heavy metals, which through crops are transferred to food and feed.</i> <i>Ms. Mihaela Antofie continues the presentation with a briefing of last year's workshops and a brief description of each event.</i> <i>Mr. Teodor Vintila comes with the proposal to analyse the supply chain and value chain in sheep industry since Sibiu county is known in Romania as the region with old shepherds traditions and processing wool. Following a discussion about the possibility of getting in touch with companies that carry out their economic activity in this industry. 2 MTF members intervened in this discussion. One MTF member says that she has a collaboration with the organization of sheep and goat breeders in Sibiu County and will contact them hoping to find common points of interest. Another MTF member indicates his contacts with wool processor in Brasov County, delivering thermal insulation for buildings and about a project in Bistrita County where wool is pelletized to be converted into fertilizer - he will try to see if this project has materialized and will come back with information.</i> <i>One MTF member and Teodor Vintila started a final discussion in this meeting about a possible collaboration for data acquisition from meat processor such as Scandia Sibiu company and companies in waste management to acquire data regarding organic wastes from the food industry and non-compliant food not sold in the retail markets.</i> <i>A future meeting has been set for February 25, 2025, at 1:00 p.m., with the aim of visualizing the collected data and formulating a data processing strategy.</i>
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3rd MTF Progress Meeting's Report

MEETING	<i>3rd Progress MTF Romania meeting</i>
DATE & PLACE	<i>14/07/2025, ULBS Teaching Farm Rusciiori, Șura Mică, Sibiu county</i>

AGENDA AND ISSUES DISCUSSED	• <i>RIBES: Project progress</i> • <i>Biomass availability</i> • <i>Mapping ecosystems for CBE Good Practices (divided in 3 working groups)</i> • <i>Transformative change (D4.1 and D.4.2.)</i> • <i>Proposal of a roadmap on CBE for Sibiu County</i>
PARTICIPANTS	• Total of 62, from which: Education & Research 31; Administration: 13; Society & Associations: 10; Industry & Agriculture: 8, including: • <i>RIBES Romania project team</i> • <i>MTF manager</i> • <i>16 MTF members</i>
RESULTS	✓ <i>Informing MTF members, stakeholders and audience regarding the general progress of the project</i> ✓ <i>Validated results regarding the availability of biomass from agricultural, animal husbandry, forestry and sludge from wastewaters treatments, for Sibiu County</i> ✓ <i>Good Practices for the regional bioeconomy have been identified, discussed and scored for the needs of Sibiu County based on principles of community at practice</i> ✓ <i>The existing governance approaches in the nexus of CBE and social innovation have been discussed, assessed and scored for fulfilling D4.1 and D4.2.</i>
PHOTO	<i>Photo of the physical meeting</i> 





BRIEF OVERVIEW

RIBES project is supported by the main actors involved in the local and regional bioeconomy. At this event, which included the meeting of the local multi-actors transformative forum (MTF), the following stakeholders were reached.

Education & Research have been represented by two relevant universities in the region: University Lucian Blaga from Sibiu and University of Agriculture Science from Cluj-Napoca.

The representatives of regional and local administration included: Agency of Regional Development Centru; Sibiu County Council; City Hall Sibiu, Direction for Agriculture of Sibiu County; Direction for Environment of Sibiu County; Agency for Payments and Interventions in Agriculture – Sibiu; local administrations of Boița and Micăsasa communes and of Sibiu and Agnita cities, Forestry directorates in Sibiu County.

NGOs attended and were active in this event: Association Ecomuzeul Regional Sibiu; Association Colinele Transilvaniei; ADEPT Transilvania Foundation; IBA Timișoara; TRANSIRA NGO; Association Eco-Harmony; Local Action Group Podișul Mediașului, Mărginimea Sibiului Association.

BioEconomy HUB in Romania represented by Green Energy Association;

Industry The activities established in the agenda of this event have been supported by representatives of agro-industry and forestry as suppliers of biomass and actors in the developing regional bio-industry and knowledge-based bioeconomy: Ocolul

Silvic Valea Frumoasei; Greengold Management; Moara Cibiș SA; Green Energy Cluster; ICPAO SA Mediaș; Continental Sibiu branch; Stark SRL.

From the total of 62 participants, 26 women attended – most of them acting in education and administration.

Event begun at 8:45 with the registration of participants. The workshop was opened by an MTF member (the Dean of the Faculty of Agricultural Sciences, Food Industry and Environmental Protection of ULBS), followed by another MTF member (Green Energy Cluster), Ms. Roxana Enescu (Sibiu Agricultural Directorate) and one more MTF member (Central Regional Development Agency).

The moderation and plenary presentations were started by Mihaela Antofie with an overview of RIBES Project progress report. Also, the main gaps in the circular bioeconomy strategy and action plans at the national level have been mentioned, the main progress in different EU countries, as well as our needs for the future.

The report on biomass availability in Sibiu County was introduced between 9:45 and 10:30. Thus, biomass availability from agricultural activities was presented by Iuliana Antonie presented the availability of biomass in agriculture. Discussions on the main crops production and surfaces were presented as well as the main availability of biomass to enter CBE.

A MTF member highlights that Sibiu County has the second larger sheep sector, after Timiș County, while in Romania in are 12,000,000 sheep and goats, ranked 2nd after Spain. It was highlighted that in Romania the structure of meat products is dominated by over half of poultry, and 30% pork. Cow milk production in Sibiu County is in large quantities, in the central region being 62,753,000 cattle, 965,720 poultry and 41,808 pigs. The estimated quantities of manure are 1220,991 t/year.

A MTF member analysed the wood biomass exploitations between 2018 and 2024, highlighting that out of 8 million, 3.5 million households are heated with wood. Between 2000 and 2020, the use of biomass for energy increased. The volume of wood harvested in 2024 was over 460 thousand m³. About 37.5% of the area of Sibiu County is forest, and the city halls own 61% of the area.

Another MTF member presented the quantities of wastewater and sludge managed by the Mediaș Wastewater Treatment Plant. The sludge is subjected to anaerobic digestion, the biogas obtained covering approx. 40% of the treatment plant's electricity needs. She also proposed the need to develop a HUB for sludge recovery from other wastewater treatment plants which cannot supply anaerobic digestion to increase the biogas production at maximum.

Teodor Vintilă presented the needs for a biogas and a biorefinery development in the region and emphasized the definitions of different terms

Between 11:00 and 12:45, the participants were divided based on their original on line registration in 3 working groups to perform the mapping of ecosystems for CBE good practices. Three major examples of good practices have been assessed: (1) Sheep wool to enter biobased industry; (2) Anaerobic digestion of waste biomass for green energy; (3) Biorefinery of biomass from marginal lands and of organic wastes from food industry for energy and biomaterials. Participants, including MTF members, used templates specific for engaging community at practice and based on dialogue each participant gave substantiated written answers on post-its to the following set of questions: proposed value/contribution (what does it offer?); key activities (what does it do and in what field does it operate?); relationships with clients/beneficiaries/partners (with whom does it interact?); key resources (what does it work with?), as part of Theory of Change. Next, an interim results presentation is made. Each group leader briefly presents the results obtained. All collaborators are invited to score from 1 to 5 on the following 5 topics for the analysed practice. Driving forces (policies, funding programs); Pressures / risks / vulnerabilities (financial, social, legislative, etc.); Replication and development potential; Impact (economic / social / environmental); Responses (political / legislative / business people / community. Finally, all groups' results have been negotiated for the general scoring in the plenary by Ms Antofie for the most balanced position in order to have a unique score for each topic.

Next, data on D4.1 and 4.2. Governance and Transformative Change were discussed based on the online form filled in by the registered participants. All discussions followed the principles of Theory of Change to support in the end the main results for CBE in Sibiu County. In the open plenary, moderated by Ms Antofie, the results are presented and opened the floor for discussions and to generally substantially agreeing the scoring for each question (between 1-5). Scores were given for all items for document D 4.1. The event collects reasoned opinions on governance and transformative change needs at the society level to support CBE.

The moderation steps follows from 13:15 to 14:00, for the Theory of Change was applied for D.4.2, done by Ms Antofie.

1- Presentation of the best practices and best scored during the meeting

2- Flipchart discussions and negotiations on templates used in the Theory of Change on

a) Resources

- i. Natural resources, available biomass*
- ii. Financial resources,*
- iii. Human resources*
- iv. Infrastructure needed to carry out activities*
- v. Strong actors*

b) f. Economic sectors involved

- c) 4- Expected activities
- d) 5- Direct and tangible results of each activity identified in point 4
- e) 6- Impact on county policies
- f) 7- Social impact
- g) 8- Barriers

The last point moderated by Antofie was the opportunity to develop a roadmap for CBE in Sibiu County. The floor was open for discussions and support coming from the audience was recorded.

The wrap of the day continued from 14:00 to 15:00 with concluding remarks and free discussions regarding the future prospects of the CBE in Centru region and Sibiu County.

The need for trainings for the uptake of CBE in our region has been highlighted: wastes management of the Sibiu city administration and farmers from Sibiu County indicated that it is needed technical training in the field of management of municipal organic wastes and waste biomass by anaerobic digestion, thermal treatments such as gasification and other technologies for capitalisation of the value of organic wastes and biomass.

Following the centralization of the questionnaires completed by participants in the “Circular BioEconomy (CBE) – Mapping Ecosystems for Best Practices” workshop, a high level of overall satisfaction is observed, both in terms of the content of the activities and the organization of the event.

The analysis of the questionnaire related to workshop satisfaction responses revealed the following results:

81.25% of responses were rated as excellent (score 5);

14.58% were rated as very good (score 4);

Only 4.17% of responses were rated as satisfactory (score 3);

No negative evaluations were recorded (scores 1 or 2);

The overall average rating is 9.75 out of 10, which corresponds to a satisfaction level of 97.5%.

Generally invited persons considered that there is a huge need for more time dedicated for discussions among involved actors.

Region of Vojvodina

1st MTF Progress Meeting's Report

MEETING	<i>1st Vojvodina region progress MTF meeting</i>	
DATE & PLACE	<i>04/10/2024 – Novi Sad, Faculty of Technical Sciences</i>	
AGENDA AND ISSUES DISCUSSED	• <i>RIBES project</i> • <i>Vojvodina MTF (members, concept and vision)</i> • <i>BE concept in Vojvodina, environment, actors, barriers, challenges, opportunities</i> • <i>Suggestions for new members, Next steps</i>	
PARTICIPANTS	• <i>1 MTF manager Vojvodina region</i> • <i>9 MTF members</i> • <i>4 FTN project team members</i>	
RESULTS	• <i>RIBES project topics and objectives explained and understood</i> • <i>MTF members: introduced themselves, potential roles defined</i> • <i>Good examples of BE & Innovation presented</i> • <i>BE in Vojvodina (status & prospectus) elaborated</i> • <i>Further steps and potential new members defined</i> • <i>Promotional material delivered</i>	
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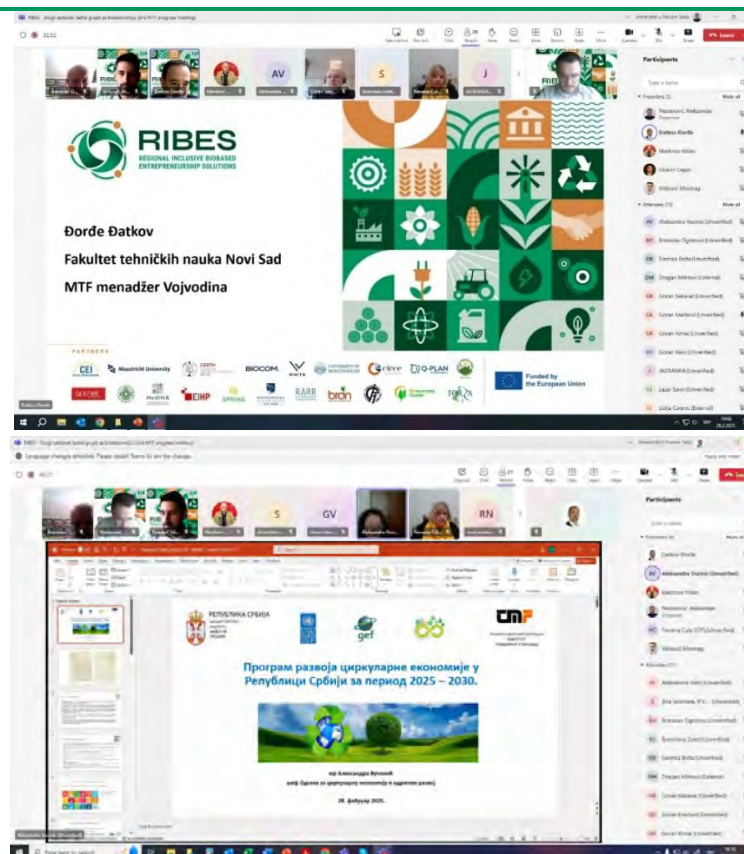
BRIEF OVERVIEW	The concept of RIBES project and its objectives and topics were introduced to the audience by Vojvodina MTF manager (Djordje Djatkov). The role of Vojvodina MTF was thoroughly explained to the members and project team members, to enable its further successful operation. MTF members introduced themselves and were guided by the manager to define their future role. BE concept (environment, actors, barriers, challenges, opportunities) in Vojvodina was firstly presented by the manager and consequently discussed by participants. Ongoing projects and initiatives in Vojvodina with the topics: bioeconomy, circularity, innovation, were suggested by members, and key persons for the membership identified. Finally, the manager announced the next steps and the future MTF meetings. Main conclusions: 1) BE with circular component in Vojvodina already exists for decades (e.g. residual biomass for energy, or fiber/end products from biomass), but is not sufficiently represented and is at low technological level; 2) Knowledge dissemination and social innovation could contribute to the BE growth in Vojvodina, but there is a lack of finances for the investments in new businesses; 3) Institutional changes and strategical support could play a crucial role for the BE transition in advanced sector from social, economic and environmental aspect.
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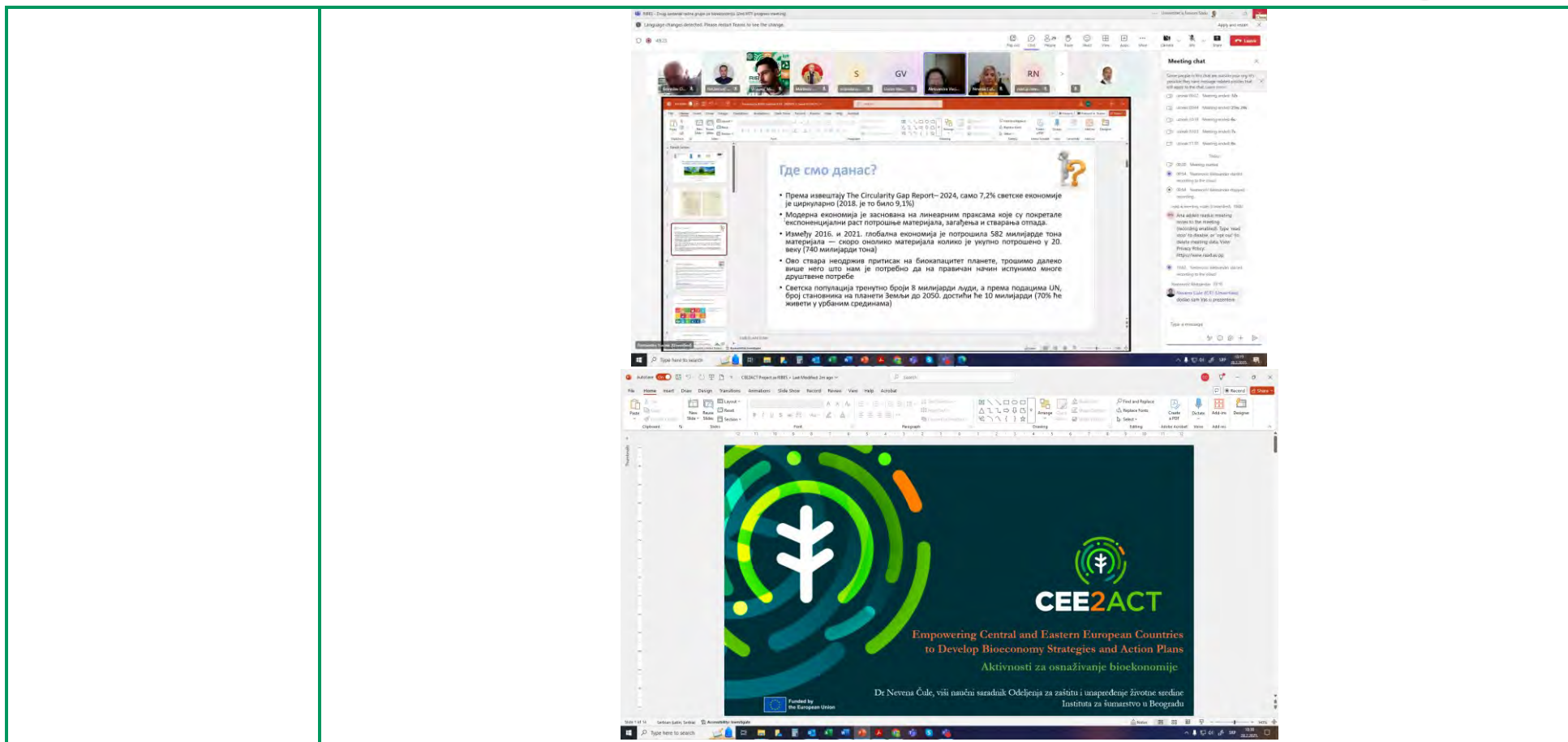
2nd MTF Progress Meeting's Report

MEETING	2 nd Vojvodina region progress MTF meeting
DATE & PLACE	28/02/2025 – Online
AGENDA AND ISSUES DISCUSSED	• Tour de table– Presentation of participants • Presentation– RIBES project + Vojvodina MTF (overview) • Presentation– BE concept + Biomass potentials in Vojvodina (overview) • Presentation– Potential biomass value chains in Vojvodina • Brainstorming– SWOT analysis of biomass value chains in Vojvodina
PARTICIPANTS	• 1 MTF manager Vojvodina region • 19 MTF members • 3 FTN project team members • 6 Bioeconomy stakeholders
RESULTS	• RIBES project topics and objectives presented; • Role and of Bioeconomy and Social Innovation concept in Vojvodina analysed; • Biomass potentials as starting in Vojvodina suggested;

- *Definition of value chain term and aspects for elaboration agreed;*
- *Perspective biomass value chains in Vojvodina presented by FTN team and analysed (pros/cons) by MTF;*
- *Additional biomass value chains in Vojvodina suggested by MTF;*
- *Opportunities for complementary activities of RIBES and other projects/initiatives adopted.*

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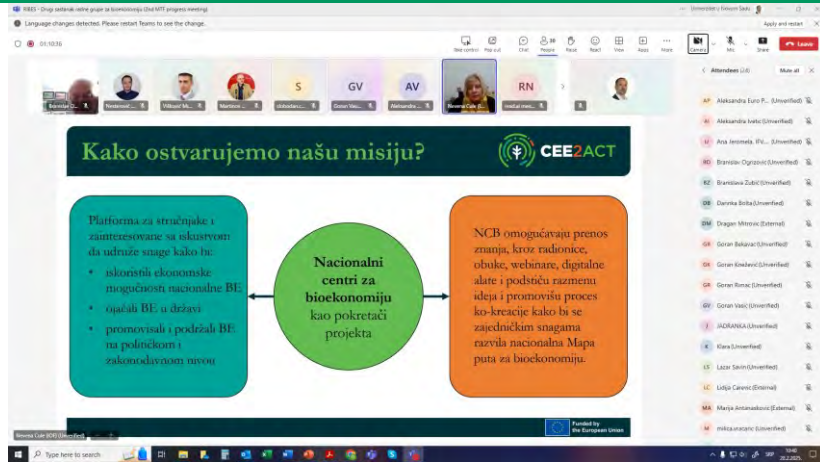


Где смо данас?

- Према извештају The Circularity Gap Report– 2024, само 7,2% светске економије је циркуларно (2018. је то било 9,1%)
- Модерна економија је заснована на линеарним праксима које су покретале беспоницијални раст потрошње материјала, загађења и стварања отпада.
- Између 2016. и 2021. глобална економија је потрошила 582 милијарде тона материјала – скоро онолико материјала колико је укупно потрошено у 20. веку (140 милијарди тона)
- Ово ствара неодољив притисак на биосферу планете, трошимо далеко више него што нам је потребно да на правичан начин испуномо многе друштвене потребе.
- Светска популација тренутно броји 8 милијарди људи, а према подацима UN, број становника на планети Земљи до 2050. dostiћи ће 10 милијарди (70% ће живети у урбаним срединама)

CEE2ACT
Empowering Central and Eastern European Countries to Develop Bioeconomy Strategies and Action Plans
Aktivnosti za osnaživanje bioekonomije

De Nevena Čule, viši naučni saradnik Odeljenja za zaštitu i unapređenje životne sredine
Instituta za šumarstvo u Beogradu

	
BRIEF OVERVIEW	MTF members and BE stakeholders introduced themselves. The concept of RIBES project, its objectives and topics, including the role and of Vojvodina region MTF in the project and the 2nd progress meeting were presented (repeated) to the audience by Vojvodina MTF manager (Djordje Djatkov). Projects, initiatives and activities related to BE in Serbia were presented and potential synergies discussed. BE and Social Innovation concept in Vojvodina was presented to facilitate further activities. Biomass potentials, primarily byproducts and waste streams, were presented and discussed as basis to further analyse perspective biomass value chains in Vojvodina which were suggested by FTN project team as well. In addition to suggested value chains, MTF members suggested additional biomass value chains, in line with their own expertise and previous activities. Finally, the MTF manager announced the next steps and the future MTF meetings. Main conclusions: 1) BE with circular component in Vojvodina is inevitable for further BE sector development and augmentation; 2) Perspective biomass value chains dominantly represent large projects (biofuels, biomethane, biochar) that can have significant impact on the regional/national level, whereby perspective value chains on smaller level (examples in rural communities) have limited opportunities to be replicated to facilitate significant impact; 3) National administration started to include BE concept in the legal framework and for the future should define up-bottom approach for development and implementation projects related to this topic; 4) Soil health and fertility are key aspects to be considered for any further activities related to BE; 5) Significant resource for BE development on the regional-national level could be marginal land that is totally exploited in Serbia; 6) There is a risk for Vojvodina region to miss the opportunity (to mis-spend existing biological resources and import the innovative products with added values), if BE strategy will not be developed in line with actual potentials.

3rd MTF Progress Meeting's Report

MEETING	<i>3rd Vojvodina region progress MTF meeting</i>
DATE & PLACE	<i>20/06/2025 – Physical</i>
AGENDA AND ISSUES DISCUSSED	• <i>Tour de table– Presentation of participants</i> • <i>Presentation– RIBES project + Vojvodina MTF (overview)</i> • <i>Presentation– Identified biobased solutions in Vojvodina</i> • <i>Brainstorming – Pros/Cons of identified biobased solutions in Vojvodina</i> • <i>Discussion – Performance indicators of current CBE governance models in Vojvodina</i> • <i>Discussion – Training needs of stakeholders for the local development of CBE</i> • <i>Wrapping up and conclusions, next steps</i>
PARTICIPANTS	• <i>1 MTF manager Vojvodina region</i> • <i>6 MTF members</i> • <i>3 FTN project team members</i>
RESULTS	• <i>RIBES project topics and objectives recapitulated;</i> • <i>Tailored biobased solutions for Vojvodina finalized;</i> • <i>Key challenges for realization of defined biobased solutions and related strategies elaborated;</i> • <i>Performance indicators for assessment the effectiveness of current CBE governance models in Vojvodina discussed;</i> • <i>Training needs of stakeholders for the local development of CBE discussed;</i>

PHOTO









BRIEF OVERVIEW

MTF members introduced themselves, emphasizing the own expertise and the previous experience in research and practice. The concept of RIBES project, its objectives and topics, including the role and of Vojvodina region MTF in the project (recapitulated) and the 3rd progress meeting topic and aim were presented to the audience by Vojvodina MTF manager (Djordje Djatkov).

Previously defined perspective biomass value chains were presented as background to finalize defined biobased solutions for Vojvodina by FTN project membe.. The main challenges of defined biobased solutions were discussed with MTF members, in line within advance arranged aspects according to their expertise. Consequently, the appropriate strategies that will enable further development of CBE in Vojvodina were suggested. Performance indicators of current CBE governance models in Vojvodina were discussed and several suggested to be used in the assessment. Discussed were also training needs of relevant stakeholders (biomass producers, local authorities, industry, academia) for the development of CBE in Vojvodina. Finally, the MTF manager wrapped up the inputs from the meeting and suggested conclusions that were adapted by MTF members, FTN project members. Vojvodina MTF manager announced the expected next steps and the future MTF meetings. Main conclusions: 1) BE sector development in Vojvodina BE should be dominantly based in agricultural production and should be achieved primarily through its circular component (utilization of insufficiently used biomass potential- crop residues and livestock manure) and through benefits of agricultural producers (facilitating soil conservation and improvement, and additional income), otherwise supply chain would collapse; 2) Biobased solutions in Vojvodina should secure agricultural soil conservation/improvement, by reuse of by-products; 3) Middle-sized projects (biomethane, biochar/hydrochar) could have significant impact on the regional/national level, whereby smaller-sized (examples in rural communities) have limited opportunities to be replicated to facilitate significant impact; 4) Large-sized projects (biofuels, centralized biomass gasification facilities, etc.) will be less probably realized due to the high demand and complex logistical chain intended for one facility (project); 5) Biobased solutions tailored for Vojvodina should be based on biomethane production from crop residues and

	<i>manure, that are so far insufficiently used and if so, in unsustainable way, and biochar/hydrochar from these and other types of biomasses (like coastal by rivers).</i>
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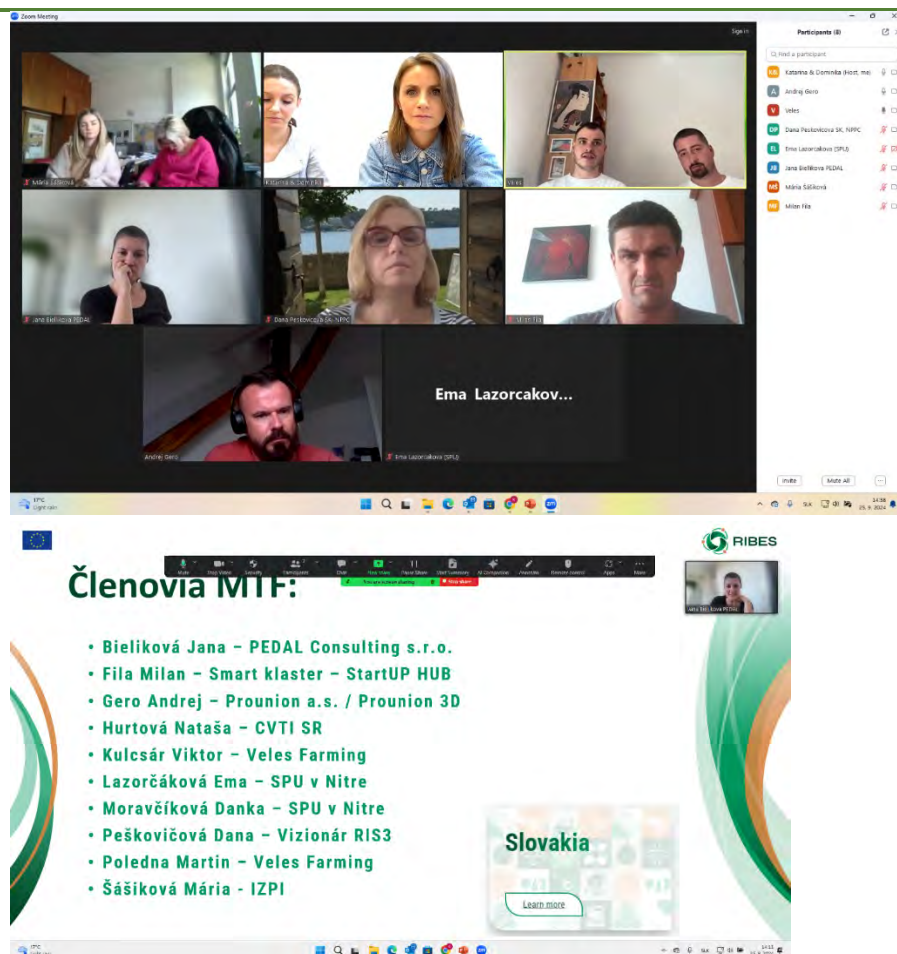
Nitra Region

1st MTF Progress Meeting's Report

MEETING	1st Slovak progress MTF meeting
DATE & PLACE	25/09/2024 – Online
AGENDA AND ISSUES DISCUSSED	• Presentation of RIBES and MTF approach • Introduction of MTF members • Slovak MTF dynamics – interrelations between individual MTF members with focus on potential value chains • Discussion on perspective topics of MTF for future collaboration
PARTICIPANTS	• MTF manager Katarína Blicklingová • RIBES project manager Dominika Pančáková • 7 MTF members • 2 colleagues of MTF members from their organizations Total = 11 participants
RESULTS	• Familiarization of MTF members with the RIBES project and focus of MTF • Setting up co-creation process for the selection of relevant value chains and cases to be further explored • Discussion on the initial value chains: saffron and mushrooms produced in the system of indoor vertical farming

- Discussion of ideas for the potential linkages with digitalization and social innovation aspects, as well as legislative boundaries affecting the business models

PHOTO



BRIEF OVERVIEW	The first meeting of Slovak MTF was organized online. The aim was to introduce RIBES project to MTF members and to get to know each other. MTF manager introduced the topics, around which the project is built, i.e. circular bioeconomy, social innovation and rural development. The present members of MTF briefly introduced themselves, their background and expertise in respect to the above topics. Members that did not participate in the first meeting were introduced by the MTF manager. Afterwards, the group discussed the interconnections between individual members and potential topics of value chain and business model development, e.g. model of start-up – mentor – investor – scale-up/replication, educational courses for young generation of entrepreneurs in bioeconomy, social innovation approach, digitalization and optimization of solutions, sharing of best practice examples and learning from the others, etc. The members of MTF also discussed the next meeting, which should be organized at the end of 2024/beginning of 2025. The idea is to hold in-person meeting in the premises of one of the members. Details will be agreed towards the end of 2024.
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2nd MTF Progress Meeting's Report

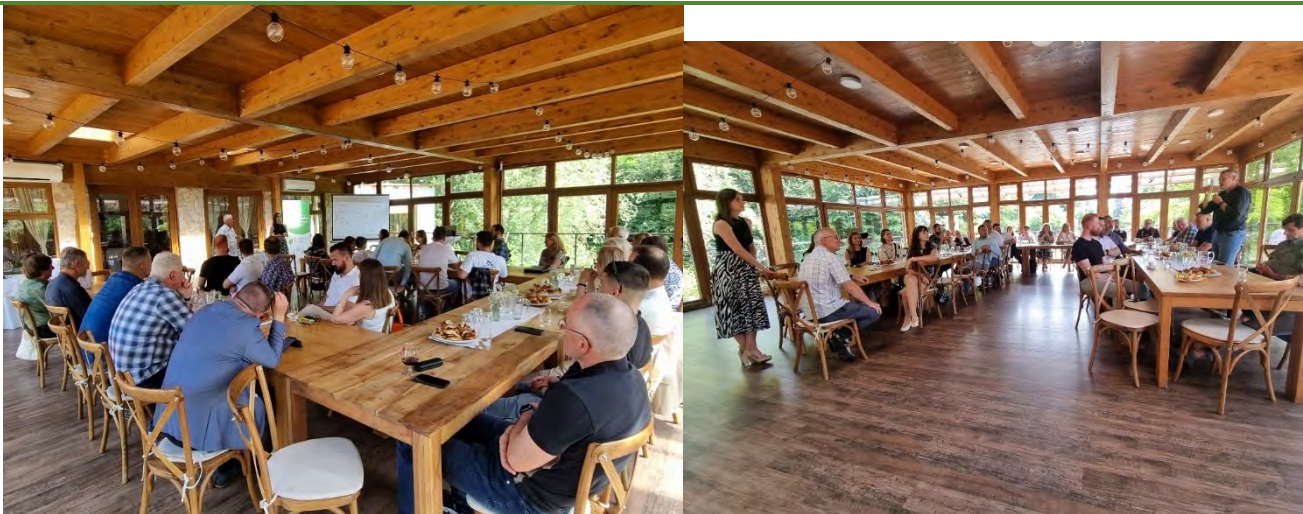
MEETING	2nd Slovak progress MTF meeting
DATE & PLACE	18/02/2025 – In person
AGENDA AND ISSUES DISCUSSED	• Presentation of RIBES and MTF approach • Tour de table – introduction of MTF members • Slovak MTF dynamics – interrelations between individual MTF members with focus on potential value chains • Brainstorming – innovative value chains based on agricultural residues present in the region • Discussion on perspective topics of MTF for future collaboration
PARTICIPANTS	• MTF manager Katarína Blicklingová • RIBES project manager Dominika Pančáková • 6 MTF members • 8 other bioeconomy stakeholders from the region Total = 16 participants
RESULTS	• Discussion on the initial value chains: saffron and mushrooms produced in the system of indoor vertical farming • Identification of further potential value chains based on agricultural residues present in the region

	• Discussion of ideas for the potential linkages among MTF members, brainstorming regarding the innovation, biomass availability and benefits linked to bioeconomy • Identification of potential future collaboration – opportunities and new calls in 2025, correlation between MTF/ RIBES and EIT Food Hub activities
<i>PHOTO</i>	  
<i>BRIEF OVERVIEW</i>	In Slovakia, the second MTF meeting was organized in person during February 2025. The discussion focused on initial value chains, particularly saffron and mushrooms grown via indoor vertical farming and related production of new protein products based on mushrooms.

	Participants also explored additional potential value chains based on agricultural residues available in the region. The conversation highlighted the importance of utilizing locally available resources and optimizing their economic and environmental benefits through innovative bioeconomy strategy. The main value chains under discussion include: - Valorization of biowaste streams - organic fertilizers and composts - Utilization of sewage sludge, implementation of water recycling systems - Carbon farming and carbon removal schemes – carbon sequestration in healthy soils - Higher added value biomaterials (construction, insulation, packaging materials) A significant part of the meeting was dedicated to brainstorming possible linkages among MTF members. Participants explored potential synergies in innovation, the availability of biomass, and the broader impact of bioeconomy-related initiatives. They exchanged ideas on how different stakeholders — ranging from researchers to entrepreneurs — could collaborate to develop new business models and sustainable solutions. The attendees also discussed potential areas for future collaboration, identifying opportunities for new funding calls in 2025. In particular, they explored how MTF could align its activities with those of other HE projects and EIT Food Hub to create synergies and enhance the impact of their work. This meeting built on the foundations established during the first Slovak MTF meeting. While the initial meeting served as an introduction to the RIBES project and a way for members to get to know each other, the second meeting was focused on deepening the discussion around specific value chains and collaboration opportunities. The third MTF meeting is planned to be organized in June 2025.
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3rd MTF Progress Meeting's Report

MEETING	3rd Slovak progress MTF meeting
DATE & PLACE	05/06/2025, Horné Lefantovce, Slovakia (in person)
AGENDA AND ISSUES DISCUSSED	• Presentation of RIBES and MTF approach • Discussion of regional transformation needs in the bioeconomy

	• Elaboration of value chains of high potential for the regional bioeconomy • Networking and creating synergies with relevant initiatives and actors at national level
<i>PARTICIPANTS</i>	• MTF manager Katarína Blicklingová • RIBES project manager Dominika Pančáková • 5 MTF members • 27 other bioeconomy stakeholders from the country Total = 34 participants
<i>RESULTS</i>	• Discussion about the results of survey on CBE ecosystem (WP2) and further elaboration on regional transformation needs in bioeconomy • Validation of regional bio-based solutions and value chains for further analysis within the project • Identification and discussion of good practices in individual bio-based solutions and establishment of synergies between actors
<i>PHOTO</i>	



BRIEF OVERVIEW

In Slovakia, the third MTF meeting was organized in person in June 2025. The meeting was combined with larger networking & synergies workshop involving broader bioeconomy community in Slovakia. It allowed for open discussion on bioeconomy ecosystem and value chains with high potential for the country.

The third MTF meeting was building on the foundations of the first and second workshop and contributed to the validation of the main value chains that should be further elaborated on within the project. These include: (i) secondary raw materials for the production of high-value crops, mushrooms and mycelium, which can be used in food, pharmaceutical and nutraceutical industry as well as in eco-construction sector; (ii) organic waste for the production of organic fertilizers, high-quality compost, as well as biochar for soil regeneration, improvement of soil health and carbon sequestration. These value chains are in the intersection of valorization of residue streams from local resources and smart-tech and innovative approaches for optimizing their economic and environmental value.

Moreover, the participants discussed regional transformation needs in the bioeconomy in order to understand diverse perspectives of stakeholders in Slovakia. The survey taken within WP2 was discussed with regard to definitions of bioeconomy, sustainability dimensions, biomass resources and their usage, key ecosystem actors and their role, etc. The participants confirmed, that the access to funding and stronger stakeholder engagement are the areas that need improvement to accelerate the bioeconomy transition in the country. In addition, the lack of knowledge, awareness and best practice sharing are also among the factors that hinder further



	development of bioeconomy in the region. Putting bioeconomy higher in the political agenda and improving cross-sectoral and inter-ministerial collaboration would bring many benefits to the whole ecosystem and could help to move forward in the implementation of bio-based solutions and innovations. In addition, the networking event created space for identification of relevant initiatives and actors at national level dealing with bioeconomy in interconnection with rural development and social innovation. Representatives of different EU-funded and national-level projects presented their activities and provided ideas on how cross participation could be ensured among projects, building on each other's outcomes. The participants exchanged information and outlined potential collaboration activities, such as workshops, conferences, exchange of tools, training materials, joint communication and dissemination activities, etc. The fourth MTF meeting is planned to be organized by the end of 2025.
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Region of Western Balkans

1st MTF Progress Meeting's Report

MEETING	<i>1st Western Balkan progress MTF meeting</i>
DATE & PLACE	<i>27/09/2024 - Online</i>
AGENDA AND ISSUES DISCUSSED	• <i>Introduction of BRDN and RIBES project</i> • <i>Introduction of Multi-Actor Transformative Forums (MTF) and Western Balkan's MTF</i> • <i>Key local framework concepts of 'social innovation' and 'bioeconomy'</i> • <i>Identification of crucial stakeholders of local bioeconomy supply chains</i> • <i>Identification of the needed transformation relevant for the WB region</i> • <i>Ecosystem barriers</i>
PARTICIPANTS	• <i>MTF manager</i> • <i>5 MTF members</i> • <i>BRDN Secretariat</i>

RESULTS	✓ <i>Familiarization of the WB MTF members with the project</i> ✓ <i>Supply/value chains specific for the WB region have been discussed</i> ✓ <i>Identified good practices, social innovations and key stakeholders in the circular bioeconomy in the WB region.</i>
PHOTO	
BRIEF OVERVIEW	<i>At the first progress meeting of the Western Balkan's MTF, the objectives and expected outcomes of the RIBES project were presented, as well as BRDN's work as a local partner that covers the activities for the Western Balkan region.</i> <i>Introduction of MTF members: Each member introduced their relevant experience, particularly in the circular economy, sharing their work and roles within the region.</i> <i>Discussion was encouraged in order to verify the key local framework concepts of "social innovation" and "bioeconomy" in the region. The purpose was also to identify specific policy instruments or initiatives that could support these concepts. This meeting allowed stakeholders to evaluate how these ideas could be applied practically within the local context.</i>

The discussions also focused on identifying the key stakeholders necessary for implementing these frameworks, such as farmers, producers, processing companies, technology providers, academic institutions, NGOs, and financial investors, all of whom play a crucial role in supporting local bioeconomy supply chains. Among these crucial stakeholders, as an examples in North Macedonia were identified: farmers and producers that produce different food products from leftovers; one processing company that produces disinfection liquid from microorganisms from food leftovers; microgreens producers; companies that produce textile material made from bio waste. Also, a company from Kosovo that makes furniture from bio waste, was identified. Regarding the end consumers, a project was pinpointed led by a team of academics from Athens, Greece, and North Macedonia, who are engaged in examining the behaviour of consumers regarding their experience with bio waste products.

Additionally, specific initiatives from the region were shared, notably the Biohacking Lab in Skopje, North Macedonia, as the first open biohacking lab in Europe established to foster innovation in sustainable solutions. This lab, established by UNDP, UNICEF, and the City of Skopje, serves as a critical example of how bioeconomy and social innovation can converge, particularly in addressing environmental challenges like biowaste management through biotechnology and community engagement. In North Macedonia's capital Skopje, biowaste amounts to a 45 percent of all municipal waste, most of which ends up in landfills. Therefore, UNDP North Macedonia, together with UNICEF and the City of Skopje, opened the first-of-its-kind biohacking laboratory in the country to tackle biowaste head on. So far, the laboratory has produced over 50 prototypes from different bio-waste.

In conclusion, the meeting was pivotal in identifying and aligning stakeholders with the region's bioeconomic and social innovation goals, aiming for more sustainable development practices. The upcoming plans for the MTF's activities were discussed, covering the expected schedule for internal progress meetings and joint workshops.

2nd MTF Progress Meeting's Report

MEETING	<i>2nd Western Balkan progress MTF meeting</i>
DATE & PLACE	<i>31/01/2025 – Skopje, M. Macedonia</i>

AGENDA AND ISSUES DISCUSSED	• <i>Introduction of participants of the Western Balkan's MTF</i> • <i>Brief introduction of BRDN and RIBES project</i> • <i>WP3 "Co-development of social and technological solutions tailored to foster local development through CBE"</i> - <i>Biomass supply logistics models</i> - <i>Suggest value chains for the Western Balkans</i> • <i>Joint discussion</i>
PARTICIPANTS	• <i>MTF manager</i> • <i>Project manager</i> • <i>7 MTF members</i>
RESULTS	✓ <i>Networking and Knowledge Exchange – Strengthened connections among MTF members and facilitated the sharing of insights and experiences.</i> ✓ <i>Discussion on Biomass and Biomass Management – Focused on the current state of biomass in the country, challenges in bio-waste management, and potential solutions.</i> ✓ <i>Validation of Proposed Value Chains – Confirmed three key value chains for biomass utilization: brewery spent grains, grape pomace, and tomato production residuals, along with an additional proposal for briquette production from grape branches.</i>
PHOTO	



BRIEF OVERVIEW

The 2nd progress meeting of the Multi-Actors Transformative Forum (MTF) for the Western Balkans was successfully held, bringing together diverse stakeholders for valuable networking, knowledge exchange, and collaboration. Participants expressed great satisfaction with the opportunity to connect, share insights, and discuss key regional challenges.

An initiative was raised to enhance future meetings by organizing site visits to MTF members' premises. As a first step, participants welcomed the invitation to hold the next meeting at a biogas plant, hosted by its owner.

During the meeting, the MTF Manager presented key findings from the study "BIOWASTE IN NORTH MACEDONIA – MAPPING THE PROBLEM AND FINDING SOLUTIONS," conducted by the Economic Chamber of North Macedonia under the IME - Increasing Market Employability Program financed by SDC. The discussion focused on the research findings, particularly the low awareness among companies about the negative impact of bio-waste and the existing regulations governing bio-waste management. Participants also shared their perspectives on current bio-waste management practices in the region.

This study mapped bio-waste generated from various sectors, including:

- Animal farms (pig and cattle)*
- Fruit and vegetable processing industries*
- Wineries*

At the conclusion of the meeting, the MTF members validated three proposed value chains identified in the research:

- Brewery Spent Grains – Can be bio-converted into high-value products such as insect protein, biochar, or bio-oil.*
- Grape Pomace – Residuals from wineries and grape-growing operations can be transformed into valuable compounds like pectin and polyphenols, which are in demand in the pharmaceutical and cosmetics industries.*

	- <i>Tomato Production Residuals – Pulp, skins, and wastewater from the vegetable industry are a significant source of lycopene, widely used in cosmetics, pharmaceuticals, and food applications.</i> <i>Additionally, an MTF member working on the “Development of an Organic Waste Management in Grapes and Wine Production in the Tikveš Region” project, implemented by GLZ, presented another value chain proposal: the production of briquettes from grape branches. This approach offers a sustainable way to utilize vineyard waste by converting it into a renewable energy source.</i> <i>The meeting reinforced the importance of collaborative efforts in advancing sustainable bio-waste management and unlocking new value chain opportunities in the Western Balkans.</i>
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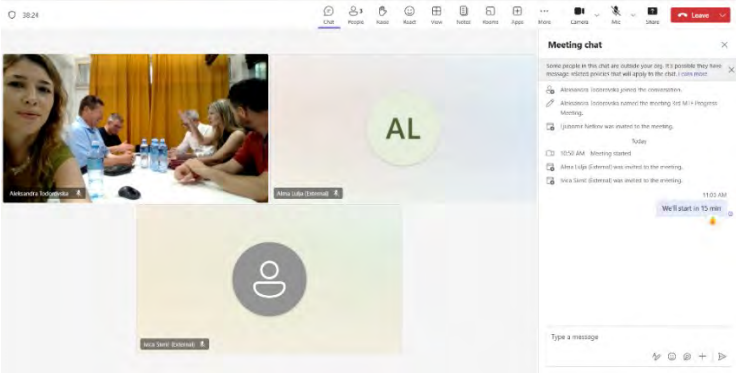
3rd MTF Progress Meeting’s Report

MEETING	<i>3rd Western Balkan progress MTF meeting</i>
DATE & PLACE	<i>26/06/2025 – Skopje, M. Macedonia</i>
AGENDA AND ISSUES DISCUSSED	• <i>Introduction of participants of the Western Balkan’s MTF</i> • <i>Final conclusion on biobased solutions that will be developed in WB within RIBES.</i> • <i>Validation of survey results, data of CBE ecosystem map</i> • <i>Presentation of RIBES platform</i> • <i>Set up performance indicators to assess the effectiveness of current CBE governance models of your area.</i> • <i>Define the training needs of your region with respect to the local development of CBE.</i>
PARTICIPANTS	• <i>MTF manager</i> • <i>Project manager</i> • <i>BRDN President</i> • <i>BRDN Program Director</i> • <i>5 MTF members</i>

RESULTS

- ✓ *Five MTF members participated in the meeting: Three in-person from North Macedonia and two online: one from Bosnia and Herzegovina, and one from Albania*
- ✓ *Participants introduced themselves and their work and knowledge related to circular bioeconomy.*
- ✓ *Agreement was reached on three bio-based solutions to be proposed for development in the Western Balkans:*
 1. *Biogas production from animal manure and agricultural residues. Already implemented in North Macedonia, supported by a full legislative framework, but not so developed in other WB countries.*
 2. *Extraction of pectin and polyphenols from grape pomace, targeted for the pharmaceutical and cosmetic industries. Promising due to the abundance of wineries in the region, however feasibility assessment must be done.*
 3. *Composting of food waste to produce organic fertilizers and soil substrates. This solution was suggested based on a successful social enterprise in North Macedonia engaging women from marginalized groups. It is considered as a scalable and socially innovative solution applicable to other countries.*
- ✓ *The RIBES platform was presented, and high interest was expressed among the MTF members.*
- ✓ *The MTF members agreed to provide individual inputs by June 30 on the following topics:*
 - *Performance indicators for assessing current CBE governance models*
 - *Validation of survey results identifying barriers and enabling factors for CBE development*
 - *Training needs for the advancement of circular bioeconomy in Western Balkans.*

PHOTO

	
BRIEF OVERVIEW	<i>The 3rd progress meeting of the Western Balkans MTF gathered five members: three in-person members from North Macedonia, and two members who joined online—one from Bosnia and Herzegovina and one from Albania.</i> <i>The meeting commenced with the introduction of all present and online participants, ensuring a shared understanding of each member's role and context within the RIBES initiative.</i> <i>The central focus of the meeting was on finalizing the bio-based solutions proposed for development in the Western Balkans region under the RIBES project. The group agreed on three key solutions:</i> - <i>Biogas production from animal manure and agricultural residues. North Macedonia already has a well-established legislative framework and three MTF members operate biogas power plants. In contrast, Bosnia and Herzegovina lacks a dedicated legal framework, and the country's mountainous geography poses additional challenges.</i> - <i>Extraction of pectin and polyphenols from grape pomace for use in the pharmaceutical and cosmetic industries. Although not yet piloted, this solution holds potential due to the high number of wineries in the region. Further feasibility assessment is required.</i> - <i>Composting of food waste to produce organic fertilizers and soil substrates for agricultural and horticultural use was introduced as third possible bio-based solution. This solution was inspired by a successful social enterprise in North Macedonia that engages women from marginalized groups. The owner of this social enterprise is member of the WB MTF. This is a strong example that can be easily replicated in other countries and also incorporates a valuable element of social innovation.</i> <i>The launching of the RIBES platform was announced, highlighting its role in knowledge sharing, promotion of bio-based products and collaboration.</i>

Related to the following topics: **performance indicators for assessment of the effectiveness of current CBE governance models; validation of the survey results and definition of the training needs for our region**, the members committed to providing their personal input by June 30, to support further refinement of the project's outputs.

Carpathian Region

1st MTF Progress Meeting's Report

MEETING	<i>1st Carpathian progress MTF meeting</i>
DATE & PLACE	<i>14 March 2025, on site</i>
AGENDA AND ISSUES DISCUSSED	<i>Introduction and Tour de Table</i> <i>RIBES Project: Solutions for Regional Bioeconomy (Presentation, FORZA)</i> <i>Key Industrial Sectors for Regional Bioeconomy Development (Presentation, FORZA)</i> <i>Exercise:</i> • <i>Identifying key stakeholders o bioeconomy sectors</i> • <i>Reviewing ongoing initiatives</i> • <i>Generating new ideas</i> <i>Presentation of results</i> <i>What's Next? How Can We Join Forces for Effective Change? (Discussion)</i> <i>Defining the Next Meeting with a Broader Group of Identified Stakeholders and Forming the MTF Members</i>
PARTICIPANTS	• <i>MTF manager</i> • <i>9 potential MTF members</i> • <i>4 members FORZA team</i>

RESULTS	<i>Main results.</i> <i>RIBES project topics and objectives explained and understood by participants.</i> <i>MTF Members Introduced. Participants presented themselves, and their potential roles within the MTF outlined. Examples from various sectors were shared to inspire local adaptation. Stakeholders from the wood, food, and energy sectors, as well as supporting organizations, have been identified as crucial players in the regional bioeconomy.</i> <i>Promotional material delivered.</i> <i>Next Steps.</i> <i>The second meeting will take place with a broader group of stakeholders. Their primary task will be to identify the most promising bioeconomy value chains in the region that can be developed within the RIBES project. During this meeting key members of the MTF will be formally identified. Stakeholders will analyze the challenges, barriers, and opportunities within these value chains. Potential activities for bioeconomy development in the Carpathian region will be discussed. Next Meeting Planned: End of April 2025.</i>
PHOTO	<i>Screenshot from the online meetings or a photo of the physical ones</i> 




BRIEF OVERVIEW

This first meeting focused on the development of bioeconomy and circular economy strategies for the Carpathian region, emphasizing sustainable resource utilization and fostering institutional support. The session covered key areas such as geographic and material circulation, technological advancements, and potential bioeconomic value chains. Participants included representatives from academia, industry, and government institutions, who discussed the current state of bioeconomy and the need for collaborative initiatives. A key takeaway was the need for pilot projects to test and validate innovative solutions, ensuring they are both economically viable and scalable.

Forests are the backbone of the regional economy, supporting industries from wood and furniture production to tourism and non-timber products. However, limited infrastructure—especially in mountainous areas—hinders connectivity and economic expansion. Participants proposed building new forest roads to improve access for businesses and rural communities. Beyond forestry, the meeting explored sector-specific bioeconomic opportunities, such as wool and leather processing, viticulture waste utilization, and value chains in apple growing and juice production. Technological innovations for waste management were also presented, including small-scale boilers for municipal solid waste combustion and bioenergy solutions for enterprises and public utilities.

Discussions underscored the challenges of scaling these initiatives due to limited financial resources and institutional support. The lack of dedicated innovation clusters and specialized funding mechanisms was identified as a critical barrier to progress. Participants

	<i>stressed the need for a coordinating body to facilitate collaboration, align industry efforts with research, and create a roadmap for sustainable development.</i> <i>Participants agreed on the importance of pilot projects to test and refine proposed value chains, as well as the need for stronger coordination between businesses, academia, and government bodies.</i> <i>Future meetings will focus on refining these strategies, identifying funding opportunities, and establishing a framework for sustained collaboration in the bioeconomy sector. A successful bioeconomy strategy for the Carpathian region must balance industrial innovation with environmental and social well-being, ensuring long-term prosperity through sustainable partnerships and investment.</i>
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2nd MTF Progress Meeting's Report

MEETING	<i>2nd Carpathian progress MTF meeting</i>
DATE & PLACE	<i>29 May 2025, on site, Khust (UA)</i>
AGENDA AND ISSUES DISCUSSED	<i>Introduction to the RIBES project and its connection to regional bioeconomy development and social innovation</i> <i>What is the Multistakeholder Transformation Forum (MTF) and its goals</i> <i>Mapping challenges, needs, and identifying potential value chains in beekeeping</i> <i>Showcase of digital innovation: smart beehive technologies, presented by two local innovators (synergy with RURACTIVE project)</i> <i>Discussion on collaboration opportunities within RIBES</i>
PARTICIPANTS	• <i>MTF manager</i> • <i>9 stakeholders, including potential MTF members</i> • <i>2 innovators</i> • <i>3 members FORZA team</i>
RESULTS	<i>Main results.</i> <i>RIBES project topics and objectives are explained and understood by participants.</i> <i>Promotional material delivered.</i> <i>Key challenges and needs identified:</i>

	<i>Genetics, selection, and conservation of the Carpathian bee</i> <i>Development of local melliferous potential (biodiversity, productivity, added value)</i> <i>Smart beehives and innovations (monitoring, standardisation, digital tools)</i> <i>Knowledge transfer, research, and education</i> <i>Processing, niche products, and cross-sectoral integration</i> <i>There was strong interest from local beekeepers in expanding cooperation and exploring these areas further with the RIBES project, focusing on the following value chains:</i> <i>1. Genetics, selection, and conservation of the Carpathian bee: Packages → Selective Breeding → Certification → Export)</i> <i>2. Processing, niche products, bio tourism and cross-sectoral integration: Honey → Processing (Creamed Honey, Mead) → Branding → Taste Tourism</i> <i>Next Steps:</i> <i>- Organise follow-up workshops to co-create value chain development plans and test suitability for RIBES</i> <i>- Expand and activate the MTF with more stakeholder engagement</i>
PHOTO	<i>Screenshot from the online meetings or a photo of the physical ones</i> 




BRIEF OVERVIEW

This second Carpathian MTF meeting in Khust focused on beekeeping, a topic came directly from local interest. Participants included representatives of oblast and local beekeeping associations, as well as individual beekeepers who see real potential in developing this sector as part of the region's bioeconomy. Discussions focused on identifying bottlenecks and opportunities across the value chains. Some of the main problems raised were the lack of proper certification, limited access to laboratory testing, and weak recognition of local honey varieties. Participants also brought forward concrete ideas from conservation of the Carpathian bee, smart hive technology to organic certification, value-added products like creamed honey and mead, and links to tourism. Two short presentations from invited innovators showed how digital tools like hive monitoring and honey quality control could be used in mountain conditions to increase the work efficiency. This sparked useful discussion and connection with the RURACTIVE project. Participants agreed that beekeeping can offer more than just economic value but it's also about biodiversity, local identity, and community-driven innovation. The meeting helped identify two strong candidate value chains and confirmed local willingness to collaborate. The next step will be to take a closer look together with the wider MTF and decide how (and if) these ideas can be explored in RIBES.

The project

The **RIBES** project **aims** to enhance the uptake of bio-based innovations in nine (9) European regions (Bulgaria, Greece, Croatia, Italy, Poland, Romania, Serbia, Slovakia, Ukraine) by developing new governance and business models that combine social entrepreneurship with rural development, thus advancing the transition to a circular economy.

Coordinator: **Central European Initiative**

PARTNER		SHORT NAME
	Central European Initiative	INCE
	Maastricht University	UM
	Centre for Research and Technology Hellas	CERTH
	BIOCOM	BIOCOM
	White Research	WR
	University of Hohenheim	UHOH
	CIRCE - Centro Tecnológico	CIRCE
	Q-PLAN International	QPL
	ARX.net	ARX.NET
	European Rural Development Network	ERDN

	Agricultural University Plovdiv	AUP
	MedINA	MedINA
	Energy Institute Hrvoje Požar	EIHP
	SPRING	SPRING
	Balkan Rural Development Network	BRDN
	Rzeszowska Agencja Rozwoju Regionalnego S.A.	RARR
	Lucian Blaga University of Sibiu	ULBS
	Faculty of Technical Sciences University of Novi Sad	FTN
	Bioeconomy Cluster	BEC
	FORZA Agency for Sustainable Development of the Carpathian Region	FORZA

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