

bioeconomy development

WS4 Training Programme Protocol

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SUSTAINABILITY AND POLICY DRIVERS FOR A REGIONAL BIOECONOMY

On 19th of October 2023, the third training session of the SCALE-UP training programme took place. Magnus Matisons from Biofuel Region opened the session and welcomed the participants and gave a short introduction to the training session. Participants from six regions were introduced to the SCALE-UP project by project manager Zoritza Kiresiawa from Ecologic Institute. Magnus continued with an introduction to the EU policy landscape, including drivers and threats for the bioeconomy.

Two guest speakers were invited to the session to give an overview of policies affecting both forest and agricultural bioeconomy. Carina Gerken Christiansen, representing North Sweden EU Office, focused on the upcoming deforestation act and the impact of forest management practices, trade of biomass and the environment. Maja Forssell, sustainability specialist, at the Federation of Swedish Farmers, gave an overview of the policy development affecting agriculture.

Challenges connected to policies and investment support were discussed in six different regional breakout rooms. A summary of the outcomes from the breakout rooms followed in the main room before the session was closed. The session encouraged collaborative problem-solving and knowledge sharing among participants.

BREAK-OUT ROOMS

AUSTRIA (AND GERMANY):

A break-out room covering Germany and Austria convened four stakeholders. The discussions focussed on the Bavarian Forest region in Germany and Upper Austria.

1. What are the main policies (regional, national and EU) affecting our regional value chains?

Germany:

- Besides the national bioeconomy strategy, Bavaria also has a dedicated bioeconomy strategy and an independent advisory council: the Bioeconomy Council Bavaria. State-level politicians recognize the relevance of the bioeconomy and actively promote the concepts and related activities (e.g. activities of BioCampus Straubing highlighted in parliamentary debates).

Upper Austria:

- There is a national bioeconomy strategy. However, no specific regional policies regarding bioeconomy nor directly food-related policies for bioeconomy exist.
- For whole food production value chain: Hygiene and Food Safety and Consumer Protection law have highest influence.
- Recently (generally in EU not only in Austria): Renewable Energy Directive (RED II) influences the use of food side stream as biomass for energy production (e.g. fo BSG).

2. What possible investment support are available and how can we encourage and support potential investors?

Germany:

- As regards the situation in the Bavarian Forest region, it was held that there is already a lot of support available from regional authorities. However, many actors still find it difficult to identify and apply for funding, as they are lacking relevant expertise (proposal writing).
- Relevant funding schemes include Horizon Europe, Interred and specifically also research grants provided by the Federal Ministry of Education and Research (BMBF).

Upper Austria:

- A regional funding scheme for investment projects (innovation support) is available.
- Through dedicated awareness building activities (what is the bioeconomy, why is it important, how do investments influence the development of bioeconomy), potential investors could be further encouraged to take the risk of investing in bio-based solutions.

3. Can we be more proactive and work out policy recommendations supportive for the regional bioeconomy?

Germany:

 Activities of Deutsche Rohstoffagentur (DERA) could be expanded to also cover activities/resources of the bioeconomy. This could include assessments on international resource dependencies with a view on bio-based resources.

Upper Austria:

- With regard to the situation in Upper Austria, it was held that it is generally difficult to actively engage with policy-makers. In order to increase the relevance of the policy recommendations developed by SCALE-UP, they should evidence-based (i.e. formulated based on inputs of practitioners) and ideally co-created by a larger group of stakeholders, including policy-makers. Specific target groups need to be identified and appropriately addressed.

4. Beyond SCALE-UP - Can we continue to support our regional value chains with funding from EU, Interreg or nationally?

Germany/Upper Austria:

- Relevant funding schemes are available, but small businesses need specific support (gaining knowledge about bioeconomy).
- Interreg projects are often less practical/not as near to consumers/applicants compared to Horizon Europe projects.
- Cooperation between Bavaria and (Upper) Austria could be promoted, e.g. through the Ressourcen Forum Austria.
- AT: SKU (small cooperation projects) as a regional funding possibility. Advisory board of the Food Cluster Upper Austria could be involved in awareness-raising activities.

ANDALUSIA, SPAIN

1. What are the main policies (regional, national and EU) affecting our regional value chains?

During the Andalusian break-out session we had two impulse presentations about the main policies affecting the regional value chains in Andalusia and Catalunya:

- Strategy for the Bioeconomy of Catalonia 2030. Teresa Botargues, Advisor to the Board of Economic Promotion of the Provincial Council of Lleida.
- Andalusian Circular Bioeconomy Strategy. Mar Cátedra, Technical Advisor of the Department of Agriculture, Fisheries, Water and Rural Development of the Junta de Andalucía.

These main policies affecting the regional value chains in Andalusia are:

- At EU level: the European Bioeconomy Strategy; and the Common Agricultural Policy (9 objectives)
- At national level: Spanish Bioeconomy Strategy Horizon 2030
- At regional level (apart from the mentioned Andalusian Circular Bioeconomy Strategy) the recently approved Circular Economy Act in Andalusia (March 2023); and the Strategic Plan to improve the competitiveness of the agricultural, livestock, fishing and agro-industrial sector and rural development of Andalusia 2020-2022.
- International/Global level: The Andalusian (and the Catalonian) circular bioeconomy Strategy also aligns with the Sustainable Development Goals, the 2030 Agenda, which is also its implementation horizon.

2. What possible investment support are available and how can we encourage and support potential investors?

In this regard, several financial instruments for the transition to a more competitive bioeconomy have been discussed, both public and private; and public-private:

- European Regional Development Funds, European Agricultural Fund for Rural Development (EAFRD), Horizon Europe.
- Bio-based Industries Consortium (BIC) a Public-Private-Partnership (PPP). The EU funding
 provide not only financial resources, but also platforms for exchange of knowledge and good
 practice across regions such as in the case of SCALE-UP and sister projects: ICT-BIO Chain,
 Power4Bio, ROBIN or Interreg Mediterranean Blue Bio Med.
- Private funds and incubators/accelerators have also been pointed out during the presentations, for example the BioHub Cat Accelerator Lab, a dedicated business service support to impulse and scale entrepreneurship in the bioeconomy.

3. Can we be more proactive and work out policy recommendations supportive for the regional bioeconomy?

In both regional strategies presented in this session, as well as during the afterward discussions, it has been emphasised the importance of three key points to be more proactive and work out policy recommendations supportive of the regional bioeconomy:

• The importance of co-creation with a multi-stakeholder approach from the very beginning of the elaboration of the strategies and the dynamic nature of the policy framework both, internally and externally. That is, the bioeconomy sector at regional level integrates the constant

evolution of the European (and international) policies (for instance the new Common Agricultural Policy); while, at the same time, being in constant evolution regionally, for example in the case of Andalusia in which it has recently been approved a Circular Economy Act (March 2023). Also, the adaptation to the concrete characteristics of the local bioeconomy and the evolving needs of the stakeholders necessitates a constant re-evaluation of the strategies - i.e., in relation to bioeconomy indicators developed by the Joint Research Centre, it has been pointed out the need to adapt them to the local situation.

- Systemic innovation to enhance the industrialization of the sector to generate value for all stakeholders involved throughout the value chain of the bioeconomy, linking R&D with product development and market solutions, generating employment and entrepreneurship opportunities.
- Communication has also been highlighted as a fundamental part of the bioeconomy strategies to develop a common understanding of the sector across the value chain, for instance with use cases such as BioHub CAT in Catalunya, facilitating the exchange of knowledge and enhancing learning loops, contributing to the nurturing of synergies between the diverse pool of stakeholders involved in the bioeconomy.

4. Beyond SCALE-UP - Can we continue to support our regional value chains with funding from EU, Interreg or nationally?

The EU projects as well as other international cooperation projects in bioeconomy have been signalled as the road to follow, particularly for the invaluable opportunity they provide to exchange knowledge and learn from the different bioeconomy approaches, methodologies, and implementation activities.

FRENCH ATLANTIC ARC, FRANCE

1. What are the main policies (regional, national and EU) affecting our regional value chains?

The main policies affecting the regional value chains are at higher levels (National or EU level). They are in various forms:

- grants and incentives, mostly aimed at high-value markets, or to boost emerging value chains into higher scale, sometimes too quickly if the supply or market is not ready to adjust
- regulations either supporting or blocking the development of bio-based products: in numerous
 instances, regulation for new bio-based products is based on the equivalent of non-renewable
 products. It sets standards for bio-based products that may be inadequate or requires for
 businesses or clusters of actors to pay for costly certifications for bio-based emerging value
 chains and products to comply to regulations based on the properties of existing non-renewable
 products
- public procurement: demand for bio-based materials or locally sourced materials in public procurement creates a market that can help secure producers and thus support the scaling up of new value chains.

One participant underlines that most support systems on public funds do not support value based on human interaction and manual work, rather supporting "industrial" products (i.e.. manufactured).

2. What possible investment support are available and how can we encourage and support potential investors?

Support is mostly available at the regional level. Depending on regions and context, it can support emerging solutions, SMEs and start-ups, as well as a collective of stakeholders and local initiatives.

3. Can we be more proactive and work out policy recommendations supportive for the regional bioeconomy?

Participants underline a disconnection between the support available locally and the impact of national or EU-level regulations that affect markets. They encourage a wider presence at the national and EU level from local actors or their representatives.

4. Beyond SCALE-UP - Can we continue to support our regional value chains with funding from EU, Interreg or nationally?

One main issue is to secure procurement of biomass from local actors that for the most part are multiple small to medium-scale producers (farmers & foresters). A growing demand for scaling up processes needs to be backed up by a secure biomass stream. Collective approaches are key for producers to meet up the demand in quality/quantity/regularity.

STRUMICA, NORTH MACEDONIA:

The number of stakeholders engaged in the breakout group for North Macedonia was 10 including representatives from the public authorities, NGOs, and academia from Strumica region and beyond.

1. What are the main policies (regional, national and EU) affecting our regional value chains?

Although the country is not a member of the European Union, it demonstrates a strong commitment to aligning with EU policies and regulatory frameworks. While it lacks a dedicated Bioeconomy Strategy, North Macedonia boasts a fairly established policy framework for its agriculture sector. Key legislative instruments in operation include the Law on Agriculture and Rural Development, the Law on Agricultural Land, the Law on Waste Management, and the Law on Environment. Additionally, the country has formulated a National Strategy for Agriculture and Rural Development to guide its agricultural policies. At the regional level, for Strumica, specific documents like the Local Environment Action Plan (2024-2029) and the Plan for Waste Management (2024-2029) have been developed, demonstrating a localized approach to environmental and agricultural issues. North Macedonia is also actively addressing climate change through various related documents and initiatives.

2. What possible investment support are available and how can we encourage and support potential investors?

In North Macedonia, there are various opportunities for investment support aimed at fostering green economic development and innovation in the bio-based sector. Some of the current options include the IPARD program, which supports rural development and agriculture, the Fund for Innovation and Technology, the Green Economy Financing Facility (GEFF) program, and the Network for Rural Development. Additionally, initiatives like Green Idea, GIZ (German Development Cooperation), and cross-border cooperation projects further enhance the investment landscape. The Center for Rural Development also plays a crucial role in facilitating rural economic growth. However, despite the presence of these diverse financial support programs, there may still be challenges. Administrative burdens and a lack of clear linkages between these opportunities and the farmers on the ground can hinder the efficient utilization of these resources. Addressing these issues and improving accessibility to such financial support is essential to ensure that these programs effectively boost investment and economic growth in North Macedonia.

3. Can we be more proactive and work out policy recommendations supportive for the regional bioeconomy?

To foster the development of a regional bioeconomy, a proactive approach is crucial. Firstly, building on the recommendations from the EU project Carbonica, there should be a concerted effort to reduce greenhouse gas emissions in agriculture through targeted policy measures. Furthermore, leveraging the insights from the BE-Rural project's bioeconomy roadmap can provide a valuable foundation for regional development in Stumica region. Establishing an information hub in the Regional center would facilitate the dissemination of knowledge and best practices in bioeconomy, fostering collaboration and innovation among local stakeholders. Creating new incubators dedicated to nurturing bioeconomy innovations, as seen in neighbouring countries, would encourage entrepreneurship and product development in this sector. Additionally, the establishment of a tech park can act as a valuable resource, serving as a center for research, development, and collaboration, ultimately helping to generate new bio-based products and promoting the circular economy. These proactive policy recommendations, rooted in EU projects and best practices from neighbouring regions, can play a pivotal role in promoting sustainable economic growth through the regional bioeconomy.

4. Beyond SCALE-UP - Can we continue to support our regional value chains with funding from EU, Interreg or nationally?

As we look beyond the conclusion of the SCALE-UP Project, it is imperative to sustain and strengthen support for our regional value chains. While there are several ongoing EU projects like BioRural, Carbonica, and Cities2023 that address related topics, it is crucial to institutionalize this support through legislative measures and the creation of rulebooks to ensure long-term continuity. This entails establishing a legal framework that fosters the development of value chains. Equally important is the formation of robust and well-informed networks that can facilitate collaboration, knowledge sharing, and resource pooling among relevant stakeholders. Moreover, ongoing knowledge exchange must be maintained to stay updated with the latest trends and best practices. Attracting new financial support, whether from the EU, Interreg, or national sources, is essential to sustain the momentum gained through projects like SCALE-UP. By implementing these measures, we can ensure the longevity of our

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regional value chains and continue to drive economic growth and innovation in our region while aligning with EU and international objectives.

MAZOVIA, POLAND:

1. What are the main policies (regional, national and EU) affecting our regional value chains?

Overall, the regional value chains in the Mazovia region are influenced by a combination of regional, national, and EU policies that support and promote the bioeconomy. These policies aim to ensure the sustainable use of natural resources, promote innovation and research, and support the development of bio-based industries in the region.

- 1. **Regional policies:** Mazovia Regional Development Strategy, Regional Innovation Strategy 2030 for Mazovia region,
- 2. **National policies:** EU 2021-2027 perspective, including Operational Programmes implemented at national level and regional level for Mazovia region, European Fund for Agriculture Development for Poland, National Fund for Environment
- 3. European Union (EU) policies: Common Agricultural Policy (CAP), EU Bioeconomy Strategy, Green Deal, European Digital Strategy

2. What possible investment support are available and how can we encourage and support potential investors?

- 1. Financial support via government funding programs, regional development agencies, or private investment firms.
 - Public support: EU Funds (including Horizon Europe, Norwegian Funds, EU Structural Funds, LIFE) and European Fund for Agriculture Development for Poland, Public banks, Financial support in the form of grants, loans, or venture capital
 - Private support: Investment funds, private loans,
- 2. Incubation and acceleration programs: Setting up incubators or accelerators dedicated to the bioeconomy sector can provide inventors with the necessary resources and guidance to develop their ideas. These programs can offer assistance with business planning, market research, product development, and access to a network of mentors and experts. Encouraging inventors to participate in such programs and providing incentives for their involvement can help them refine their inventions and bring them to the market quickly.
- 3. Technology transfer and knowledge exchange: Facilitating technology transfer and knowledge exchange between research institutions, universities, and the business community can encourage inventors to collaborate and seek commercialization opportunities for their inventions. Organizing conferences, workshops, and seminars can help create a platform for inventors to showcase their ideas, connect with potential investors or industry partners, and gain valuable feedback and insights. Technology transfer should include Warsaw and Radom region dimensions.
- 4. **Networking and collaboration opportunities**: Via clusters and business networks by creating networking events and innovation hubs that can facilitate collaboration and knowledge sharing among inventors, entrepreneurs, investors, and other stakeholders in the bioeconomy sector.
- 5. **Training and mentorship programs**: Offering training programs and mentorship opportunities specifically tailored to inventors in the bioeconomy sector can help develop their skills and knowledge run by regional government, cities and non-governmental organizations and tailored to inventors needs in the bioeconomy sector.

3. Can we be more proactive and work out policy recommendations supportive for the regional bioeconomy?

- 1. By engaging regional and national government in the development and implementation of ongoing EU projects related to bioeconomy
- 2. By organizing synergy building activities between ongoing initiatives
- 3. By participating in working groups and advisory boards to public administration entities to shape regional policies
- 4. Implementation or coordination of implementation of joint actions and pilot experiments
- 5. Promotion of green public procurement and innovative procurement, boosting its usage by public bodies

4. Beyond SCALE-UP - Can we continue to support our regional value chains with funding from EU, Interreg or nationally?

Wise synergy building between activities that are being implemented in the region by

- Engagement at local level with multiple stakeholders and creation of interlinkages at science and business
- Creation of joint activities for skills in bioeconomy
- Implementation of experiments and pilot actions
- Boosting vocational training in higher schools
- Updating of syllabus in non-technological and technologies technological faculties with bioeconomy assignment
- metaCSEI cluster

NORTHERN SWEDEN

1. What are the main policies (regional, national and EU) affecting our regional value chains?

Discussions took place about the impact of the EU policies on the forest bioeconomy. The deforestation act and other regulations were considered of great concern. The impact can be severe, especially as EU legislation is implemented into Swedish law by independent Swedish authorities and not by politicians like in many other EU countries. The tradition by Swedish authorities is strict implementation of policies and to be faithful to the letter.

2. What possible investment support are available and how can we encourage and support potential investors?

Support is often needed to overcome "the valley of death" and is available national funding "the climate leap" and "the industry leap". A great challenge for new and innovative users of biomass is the established forest industries competitive nature and lack of open mind for new ways to upgrade biomass.

3. Can we be more proactive and work out policy recommendations supportive for the regional bioeconomy?

We should all work for better understanding, by our policymakers, especially on the EU level, of the different regional conditions for biomass production from the Mediterranean zone to the Arctic.

4. Beyond SCALE-UP - Can we continue to support our regional value chains with funding from EU, Interreg or nationally?

Actions identified by the SCALE-UP platform can be drafted for more funding.

Cross-regional conclusions/learnings

The session has contributed to awareness raising of the complex policy landscape influencing different regional bioeconomies. The session revealed the high dependency of supportive policies in the different regions and inspired for actions for promoting policies facilitating investments and growth of regional bioeconomies. Opportunities and identified challenges for growth in the bioeconomy, identified by the SCALE-UP platform, can be further developed to suggest recommendations for policymakers. Investment support is available at various sources, but support is needed to overcome knowledge gaps and administrative hurdles. The importance of support delivered by business incubators, trainings, networking, clusters or multi-actor platforms was also highlighted. Additional Interreg or EU funding for cross-regional exchange of best practices can facilitate further build-up of such support structures.

Participant feedback

At the end of the training session, the participants were asked to fill in a short survey to evaluate the training session. In the end, 8 participants responded to the survey, of which 1 participant was from Spain, 1 from North Macedonia, 1 from Poland, 1 from France, and 4 participants from Sweden. The survey gave the following results:

The participants were asked to rate the quality of the training session on a scale from 1 (poor) to 4 (excellent). Out of the 8 participants, 3 gave the quality of the session a 4 (excellent), 4 participants responded with a 3, and 1 with a score 2.

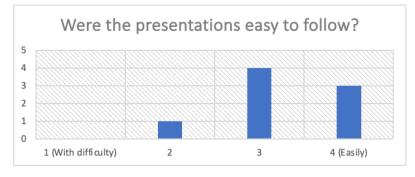


The participants were then asked what went well during the session. This gave many positive responses about the organization and contents of the session, as well as the interesting discussions

and exchange of experiences during the breakout session. Specific comments about increased knowledge about what is going on, understanding a different perception of the principle of dry cutting in France and Norway, Biogas Plant and Strumica Major Meeting.

Next, the participants were asked what could have gone better. Here one participant requested a clear definition of the bioeconomy and a broader discussion about the socio-environmental vision promoted. A suggestion for a changed report from the breakout rooms was that each region could present a heart issue in a little more detail to increase the understanding in the consortium of the different challenges that it has.

The participants were also asked whether the presentations were easy to follow. They were asked to rate this on a scale from 1(with difficulty) to 4 (easily). Out of the 8 participants, 3 gave this a score of 4 (easily), 4 responded 3 and 1 gave score 2.

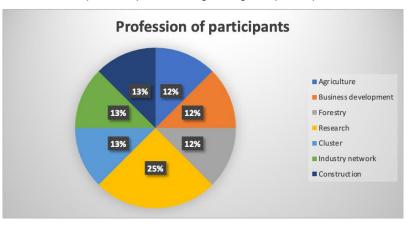


This third session the participants were asked to compare this one to previous sessions. Here was mentiton the quality of the speakers and that the technical quality was better while it was easy to swith to rooms.

When asked which topic was most interesting, we received the following answers:

- Biohubs
- Both topics relevant
- The group discussion was fruitful
- The biogas plant and the problem of stubble burning. We had the opportunity to get to know the reality of Strumica and part of North Macedonia

The survey concluded with an optional question regarding the participant's field of occupation:



Participants:

If you wish to get in touch with one of the participants from this session, please contact someone in the SCALE-EP consortium.

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