

PROJECT REPLICABILITY



Exploring Bio-based Solution Replication in Lithuania

In this interview, we speak with Giedrius Bagušinskas and Laura Uturytė from LITMEA | Smart Food Cluster, a key player in Lithuania's agri-food sector.

They share valuable insights on the country's potential to scale bio-based solutions from agricultural side streams, the main barriers for SMEs, and the importance of cross-sector collaboration.

Although not a formal BRILIAN partner, their perspective supports our mission to promote sustainable, circular business models across rural Europe.

Can you share a few words about your Organization, field of work, contribution, and aspirations?

LITMEA | Smart Food Cluster is a national cluster uniting actors across Lithuania's agri-food sector, including producers, processors, packaging innovators, R&D institutions, and support organizations. With a network of over 120 members, our goal is to strengthen the competitiveness and resilience of Lithuania's food value chains by supporting innovation, internationalization, and sustainable transformation.

We help businesses access foreign markets, adopt digital and circular practices, and implement bio-based and renewable energy solutions. Our activities span export promotion, pilot and demonstration projects, capacity-building, and EU-level collaboration. As a Silver Label cluster, we are an active participant in S3 thematic platforms (Food Packaging, Ingredients for a Circular Economy, Agri & Food Nordic



Giedrius Bagušinskas
Director & Cluster
Manager | LITMEA | Smart
food cluster

Giedrius Bagušinskas brings 18+ years of experience in international business and export strategy. As Director of Smart Food Cluster, he drives innovation, supports agri-food companies, and promotes circular, bio-based models across Europe.



Laura Uturytė
Head of International
Affairs & Projects |
LITMEA | Smart food
cluster

Laura Uturytė has 17+ years of experience in innovation and SME support within the agri-food sector. She leads international projects at Smart Food Cluster and promotes the integration of circular and bio-based solutions in Lithuania and across the EU.



Interviewer
Anastasia Perouli
- BIOEAST-

PROJECT REPLICABILITY

Network) and regularly contribute to Horizon Europe, COSME, Interreg, Euroclusters, and I3 projects..

While we are not a formal partner in the BRILIAN project, we are pleased to contribute to its broader mission by sharing insights from Lithuania's experience in applying bio-based solutions and supporting sustainable agri-food systems. Our aspiration is to be a bridge between local SMEs and EU innovation ecosystems, enabling the uptake of scalable, nature-based solutions that add value to agricultural side streams and support the green and digital transition of rural regions.

From your perspective, what are the main opportunities for applying bio-based solutions derived from agricultural side streams in your country?

Lithuania offers untapped potential for developing bio-based solutions from agricultural side streams. The country's strong agri-food base—especially in cereals, dairy, vegetables, and berries—generates large quantities of biomass and organic by-products that can be transformed into value-added products.

Key opportunities include:

- Fertilizers and soil enhancers derived from food and processing waste;
- Functional ingredients for food, cosmetics, especially from fermented or extracted compounds;
- Biogas and bioenergy applications, especially on farms and in cooperatives.

Lithuania's Smart Specialisation Strategy supports innovation in food and biotechnology, and there's increasing interest in decentralized biorefineries and circular hubs in rural areas.

What key challenges—technical, economic, or regulatory—do you see in replicating or scaling such bio-based innovations locally?

While there is strong potential for bio-based innovation in Lithuania, replicating or scaling these solutions locally faces several significant barriers, particularly for SMEs and rural actors:

- High investment costs and lack of accessible funding make it difficult for smaller producers or cooperatives to adopt the required technologies.
- Limited infrastructure and testing environments (e.g. pilot facilities, biorefineries) restrict the ability to validate and adapt innovations to local contexts before full implementation.
- Insufficient access to test-before-invest opportunities, which would allow SMEs to trial bio-based solutions in real market conditions and reduce perceived risk.
- Low awareness and technical know-how among potential users—especially in rural areas—slows the diffusion of good practices.
- Fragmented value chains, where collaboration between primary producers, processors, technology developers, and buyers is not yet systemic, makes replication efforts complex and uneven.

Scaling these innovations requires not only technical solutions, but also stronger ecosystem coordination, policy support, and demonstration models that show the economic and environmental benefits at a local level. Encouraging peer learning, public-private cooperation, and access to EU-level tools and funding will be key to enabling wider replication across Lithuanian regions.

Are there particular sectors or regions within your country where these solutions could have the greatest impact or uptake?

Yes, Lithuania's Central and Western Lithuania Region have strong agricultural and food processing industries and are well-positioned to benefit from the uptake of bio-based innovations.

Sectors with the highest uptake potential include:

- Grain and dairy processing, which generate significant volumes of by-products such as bran, whey, and fermentation residues.
- Fruit, vegetable, and crop growers, whose seasonal and processing waste streams (e.g. husks, stems, peels, trimmings) can be valorised into bioingredients, composts, or bio-based packaging.

This region and sectors could serve as early adopters or demonstration sites for Lithuania's broader bioeconomy transition, especially if backed by EU and national support mechanisms targeting innovation, investment, and infrastructure.



Interviewer

Anastasia Perouli
- BIOEAST-

PROJECT REPLICABILITY

How do you see your organization's role in supporting or benefiting from the transition to a more bio-based economy?

In recent years, LITMEA| Smart food cluster has been actively strengthening its role in supporting Lithuania's transition toward a more circular and bio-based agri-food economy. While we are not yet a fully established facilitator in this field, we are steadily building our capabilities and partnerships to become one.

We are currently contributing to this transition by:

- Exploring synergies between food production and biosolutions through EU projects;
- Engaging our members in discussions and knowledge-sharing on bio-based materials, side-stream valorisation, and sustainable packaging;
- Building networks with technology providers, researchers, and public sector actors focused on circular bioeconomy strategies;
- Participating in interregional cooperation to better understand how biosolutions can be adapted and scaled in Lithuania's regional context.

Our ambition is to become a reliable bridge between SMEs, innovators, and EU-level initiatives, helping agri-food companies test, adopt, and scale sustainable and bio-based solutions.



Interviewer

Anastasia Perouli
- BIOEAST-