



BRILIAN
Circular Future for Rural Areas

DISCUSSION & Q&A



Webinar: Biorefineries as Nodes for a Thriving Rural Bioeconomy

Date: May 5, 2025

Introduction

The following document summarizes the outcomes of the discussion and Q&A session of the *Biorefineries as Nodes for a Thriving Rural Bioeconomy* webinar in an interactive format using the transcript of the video recording.

Key Points from Pilots4U

Biorefinery Activity as a Goal:

- Biorefinery is the desired phase, but reaching it requires first overcoming earlier challenges like piloting and demonstration.

Open Access Concept:

- Open access facilities mean any company can apply to use them.
- It **does not mean free access** — there is still a cost involved, though it's **cheaper, faster, and better** than building your own infrastructure.
- 120 such **open access pilot and demo facilities** currently exist in Europe.

Database and Platform Update:

- A new, more interactive **"Pilots4U" platform** is being launched on **June 1st** to replace the existing database.

Challenges Identified:

- **Underdeveloped regions** lack infrastructure and ecosystem for pilot/demo activities.
- However, there's a push to **utilize existing European facilities** rather than building new ones.

- Focus should be on supporting **innovators, startups, and scaleups**, rather than constructing new demo infrastructures.

Policy recommendation: Use what's already available — existing infrastructure is underutilized but ready for use.

Access Across Borders:

- Innovations often require access to pilot plants **outside their own country** (e.g., Portugal, Finland).
- Therefore, funding mechanisms should support **cross-border access** — "**mobility of funding**".

Importance of Support and Funding:

- Piloting remains **risky**; many innovations fail during this phase.
- **Investor reluctance** is common due to this high risk.
- Public **co-funding mechanisms** are recommended to de-risk investment and support innovation progression.



Key points from Q&A (Manurefinery project & Novamont)

1. **Measuring Social Impact**
2. **Stakeholder Engagement (Especially Farmers)**
3. **Benefits of Bio-refineries and Circular Bioeconomy**

4. **Challenges in Farmer Adoption**
5. **Hidden Costs and Financial Incentives**
6. **Importance of Demonstration and Pilot Projects**
7. **Role of Policies and Subsidies**
8. **Local Agricultural Supply Chains and Bioproducts**
9. **Communication and Education for Traditional Producers**

Most Important Takeaway Messages:

Social Impact is Being Measured Through Targeted KPIs and Surveys:

Projects are using gender and socio-economic data from farmer surveys (with a 5% sampling goal) to assess social impact at two points during the project timeline.

Stakeholder Engagement is Critical and Must Be Ongoing:

Direct communication with farmers helps collect real data and build relevant, acceptable solutions. This is a priority for the European Commission across Horizon Europe and beyond.

Bio-refineries Offer Clear Benefits, But Are Hard to Quantify:

They promote sustainability, reduce waste, and create new products, yet the impact can be difficult to measure without active dialogue with stakeholders.

Farmers Benefit from Sustainability and Input Savings:

Examples include cost savings from biodegradable mulching films and reduced waste disposal needs.

Local Production and Value Chain Integration Is a Strength:

Novamont and other projects cultivate crops like cardoon and sunflower locally, linking agriculture directly with industrial bioproduct manufacturing.

Adoption Barriers Exist Due to Status Quo and Knowledge Gaps:

Traditional producers are often unfamiliar with bioeconomy terms and practices. They require clear explanations, real-world examples, and financial support to consider adoption.

Financing for Infrastructure and Innovation is a Major Hurdle:

Capital expenditure and the gap between TRL 7 and 9 are critical phases requiring innovative business models and potentially subsidies to de-risk investment.

Policy and Demonstration Projects Are Catalysts for Change:

Policies can help bridge the gap between traditional practices and new biobased approaches. Demonstration sites show tangible benefits and build confidence.

Listening to Farmers' Needs Is the Starting Point:

The most effective models begin by understanding farmers' local needs and designing supply chains and solutions around them (e.g., low-input crops on marginal land).



Conclusions

1. **Support Infrastructure Already Exists — Focus Should Shift to Access and Use**
2. Europe has a robust network of 120 open-access pilot and demo bioeconomy infrastructures. Rather than building new ones, the priority should be to **help innovators, especially in underdeveloped regions, access and utilize** these facilities to bridge the "valley of death" and reach the biomanufacturing stage.
3. **Stakeholder Engagement Is Essential and Must Be Localized**

Successful implementation of rural bio-refinery and biobased projects depends heavily on **engaging farmers and local communities**. Long-term trust-building, understanding local needs, and co-

developing solutions are crucial for impact and adoption.

Measuring Social and Gender Impact Is Gaining Priority

There's a growing emphasis (including from the EU) on assessing **social and gender dimensions**, not just technical or economic outcomes. This is being done via structured KPIs, farmer surveys, and cross-project data harmonization efforts.

Knowledge Gaps and Cultural Barriers Remain a Major Challenge

Traditional producers often struggle to understand or trust new biobased models due to lack of exposure or immediate economic clarity. Clear communication, hands-on demonstrations, and **guidance from experienced partners** can ease this transition.

Financial Risk and Lack of Capital Hinder Adoption

Moving from demonstration (TRL 7) to market-ready innovation (TRL 9) is financially risky and capital-intensive. **Mobility of funding, subsidies, and tailored business models** are needed to support innovators and encourage traditional producers to transition.

Circular Bioeconomy Creates Local, Sustainable Value Chains

Projects like **BRILIAN** illustrate how locally grown crops (e.g., cardoon, sunflower) can feed into local industrial production, creating closed-loop systems that benefit both **farmers and the environment**.



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