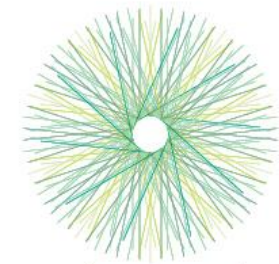


EIP-AGRI Workshop Small is smart

29-30 October 2019– Bucharest, Romania



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AGRICULTURE & INNOVATION



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Programme

DAY 1 - TUESDAY 29 OCTOBER

09:00 - 10:15

Welcoming participants and setting the scene

- Welcome to Bucharest and short introduction about small farms innovation in Romania by the Romanian Ministry of Agriculture, [Dana Reberga](#), Deputy General Director of the [MoA](#)
- Opening words from the European Commission, [Inge Van Oost](#), DG AGRI
- Ice-breaker
- Presentations
 - Small smart farms: how can small farms benefit from digital innovations in agriculture? [Leanne Townsend](#), James Hutton Institute, UK
 - An overview of the CUMA: farm machinery cooperatives, [Stephane Diard](#), FN CUMA, France
 - Direct selling: an instrument to improve profitability in small-scale farming, [Bavo Verwilt](#), Organic farmer, Belgium
 - Combining innovation with tradition for economic viability of Romania's small-scale farms, [Razvan Popa](#), Adept Foundation, Romania
 - Small-scale Bioeconomy Opportunities for European Farmers, [James Gaffey](#), Biorefinery glass project, Ireland

10:15 - 11:00

Breakout session: **What steps could a small farmer take to introduce innovation or good practices?**

11:00 - 11:30

Coffee break

11:30 - 13:00

Continuation of breakout session: **What steps could a small farmer take to introduce innovation or good practices?**

13:00 - 13:50

Lunch

14:00 - 18:30

Field trip to the Romanian Horticultural Institute



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DAY 2 – WEDNESDAY 30 OCTOBER

08:30 - 09:00 **Registration**

09:00 - 09:45 A **welcome back** to participants

Energiser exercise

What is the EIP-AGRI? The importance of knowledge exchange (and the local AKIS in general) in successful EIP-AGRI implementation, **Inge Van Oost, DG AGRI**

An **introduction** to the rest of the day

09:45 - 10:45 Breakout session: **How can best practice sharing, collaboration, digitalisation and knowledge transfer best support innovation in small farms?**

- Which types of collaboration support small farmers to innovate and how?
- How can small farmers be encouraged and supported to utilise digitalisation as a means to innovate?
- Which methods of knowledge sharing work best for small farmers and how can these methods support innovation?

10:45 - 11:15 **Coffee break**

11:15 - 12:30 Breakout session: **How could the innovation support environment for small farmers be improved at a regional, national and European level?**

- What type of advisory services best support small farmers?
- What type of innovation support would help best?
- How can networking help small farmers?
- What areas of research are important for small farmers?

12:30 - 13:30 **Bringing participants together** and reflect on the workshop's outcomes

13:30 - 14:30 **Farewell & lunch**



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Small-scale Bioeconomy Opportunities for EU Farmers



Bioeconomy – the future for agriculture?

- Growing population, finite resources and environmental impacts mean that global society must do things more sustainably
- A Circular Bioeconomy can allow us to do more with less and help us meet many of our current challenges
- Bioeconomy will generate a lot of revenue and can preserve/maintain rural jobs
- Bioeconomy is dependent on primary producers to create it's raw material inputs
- Key question – how do we integrate farmers within our future bioeconomy?



As feedstock suppliers
to biobased industry

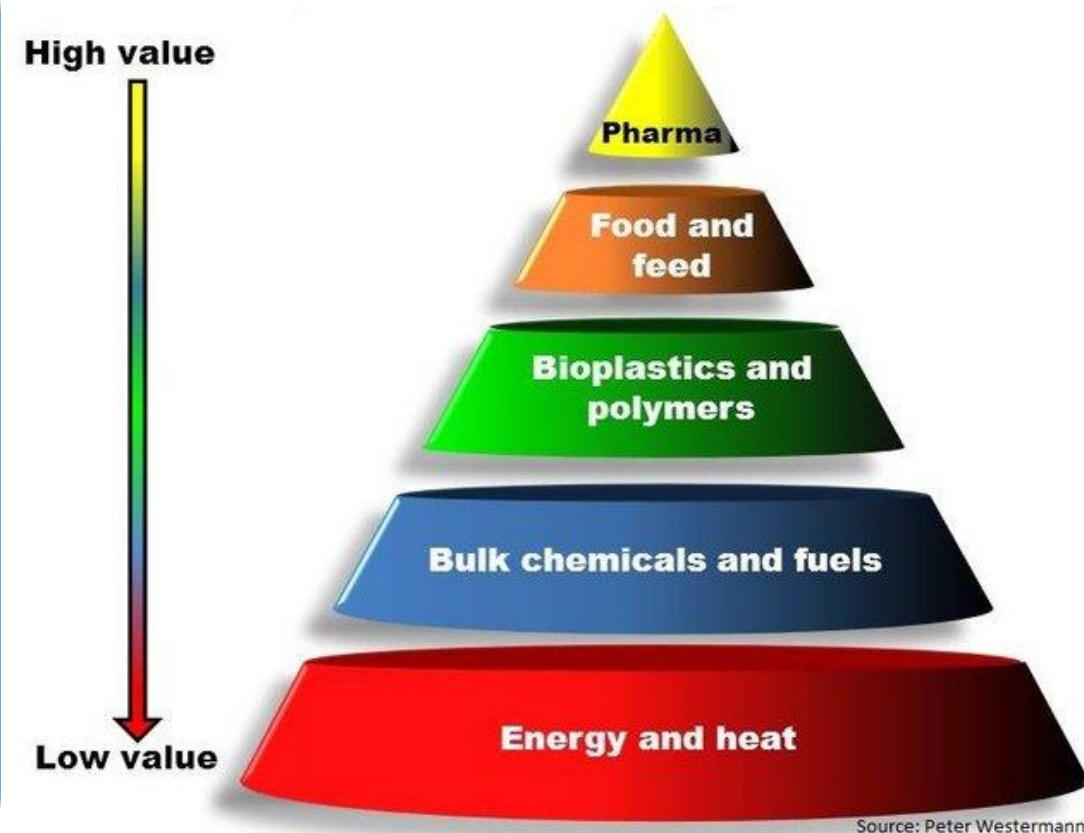


As producers of products
through large farmer-
owned co-op biorefineries



As producers of products
through small-scale farmer-
owned co-op biorefineries

- Small-scale biorefineries are biorefinery systems which are a viable at (comparatively) low feedstock capacity, taking advantage of specific technology design and supply chain dynamics
- Some features of small-scale biorefineries
 - Typically focuses on feedstocks with high moisture content (economy of scale in processing plants v/s diseconomy of scale in supply chain)
 - Can be suitable for on-farm usage and farmer operable
 - Focus on producing 2 or more products/energy, either semi-finished or finished
 - Can be centralized or decentralized (including mobile plants) with partial integration with centralized facilities
 - Low CAPEX



Lange et al, 2009



Project Profile: Biorefinery Glas – Small-scale farmer-led Green Biorefineries



- EIP-Agri OG funded by Dept. of Agriculture, Food and the Marine
- A farmer-centric biorefinery approach
- **Aims**
- Test a small-scale grass biorefinery model as a means for farmer diversification through small-scale biorefinery
- To improve grassland use create new additional animal feed (improving protein dependence) and value-added co-products
- To demonstrate a mechanism for farmers to reduce emissions produced by livestock and by displacement of fossil-based products
- To evaluate the business case and propose business models for adoption
- Change role of farmers from suppliers to producers of products





Testing 4 products produced from 1 product grass

PRESS CAKE – FODDER SOURCE

Feed trial in UCD Lyons Farm - Evaluation of press cake in autumn calving dairy cows.



GRASS Protein Concentrate

Feeding trial on commercial pig farms - Potential for grass juice protein concentrate to partially replace soybean meal in pig diets.



FOS (fructo-oligosaccharides)

The prebiotic potential of the FOS enriched whey will be determined with a view to potential development of a FOS product for food and animal feed markets.



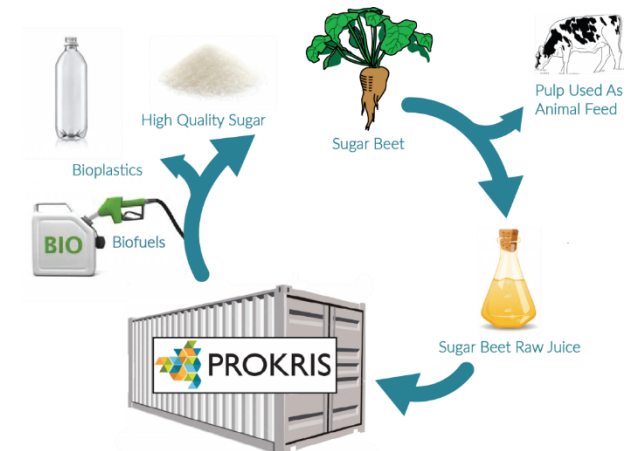
GRASS WHEY

The nutrient-rich whey has potential applications as a bio-fertiliser or as a substrate for biogas production in a zero-waste approach.



Small-scale Biorefineries – Some other examples

Name	Location	Input	Products
GRASSA BV	Netherlands	Fresh grass, green leaves	Protein for cattle, protein concentrate for pigs and chickens, sugars and fertiliser
Zeafuels Biomotion Project	Netherlands	Maize and slurry	Ethanol, biogas (heat partly used to distil ethanol), feed, fertiliser
DADTCO	Netherlands and Africa	Cassava Roots	Food grade cassava cake or starch flour, sorbitol, bioethanol, pentoses syrups etc.
Prokris	Netherlands	Sugarbeet	Industrial grade sugar, amino acid, pulp (animal feed)
TCE GoFour	Netherlands	Oil crops (e.g. rape seed)	Protein for animal feed, ingredients for the food industry, biodiesel, nutrients





Biorefinery Glas Team Members



An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine



The European Agricultural Fund
for Rural Development: Europe
investing in rural areas.



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