



# EIP-AGRI Workshop

## 'Opportunities for farm diversification in the circular bioeconomy'

### DAY 1 (PART 2) – 6 FEBRUARY 2019

16:25 – 17:45

#### Break-out session

**Which opportunities can farmers and foresters pursue when diversifying into the bio-economy?**

- **Livestock Farming: Mr. James Gaffey – Scientific Coordinator on the H2020 Biobased Industries Joint Undertaking (BBI JU) project ICT-BIOCHAIN, focused on developing efficient biomass supply chains for sustainable chemical bio-economy regions.**
- **Arable Farming: Ms. Anna Trettenero – A farmer herself she runs a biogas plant in cooperation with other arable farmers in Italy.**
- **Permanent Crops: Mr. Tomáš Fénix – He runs an organic family fruit and wine farm in southern Moravia, testing various circular bio-economy initiatives on his farm.**
- **Forestry: Mr. Bernard Carey – involved in the Operational Group Biomass to Biochar for Farm Bio-economy (BBFB) in Ireland.**

*The session continues with facilitated discussion addressing specific questions*

Harvesting the results of the break-out session.

17:45 – 18:00

#### Wrap-up of the first day

**James Gaffey**  
Project ICT-BIOCHAIN



funded by the European Commission





Ireland's European Structural and  
Investment Funds Programmes  
2014-2020

Co-funded by the Irish Government  
and the European Union



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

# Biorefinery “Glas” – a farmer-centric biorefinery approach for the livestock sector

- First demonstration of small-scale biorefining in Ireland
- Funded under EIP-Agri
- Farmer-centric bioeconomy approach
  - Addresses Key Challenges for the livestock-sector
  - Integrates within existing agricultural structures
  - Can be taken up and utilised by cohort of farmers and contractors





“From a few products to many products”



Photo courtesy of GRASSA

## Expected Impacts

- Use a multi-product biorefinery approach and validate new indigenous products
  - 2 protein feed products (for ruminants and non-ruminants), fructo-oligosaccharides, biogas and fertiliser
- Significant increase in usable protein per hectare
- Significant reduction in N and P and indirect GHG emissions reduction
- Demonstrate a new business model & “farm-to-farm bioeconomy symbiosis”
- Improving farmer knowledge around bioeconomy and circular economy







## Closing the multi-actor loops

- Building a farmer-centric solution requires analysis of the entire value chain and identification of suitable business models
- Biorefinery Glas
  - Offers farmers a diversification solution that is operable and affordable
  - Offers finishing and route-to-market access by smartly using the existing co-operative structures
  - Uses a cascading approach to produce in-demand locally produced products with export potential
- Biorefinery Glas is a first step towards moving farmers further up the bioeconomy value chain becoming producers of semi-finished/finished products rather than suppliers of biomass



Photo courtesy of Carbery



## WHAT TO EXPECT

The integrated small-scale mobile biorefinery will process and validate a spectrum of new products from fresh grass including fibre press-cake feed for cattle, a protein co-product for pigs, a high-value prebiotic sugar stream for the food/feed and cosmetic market, and a residual stream for use as energy or fertiliser. The project will also evaluate a new business model supporting farmer diversification into the bioeconomy. The project is a first step at changing the role of farmers in the bioeconomy, from suppliers of low-cost biomass to producers of biobased products.

## WHAT IS BIOREFINERY GLAS?

Biorefinery Glas is an EIP-Agri Operational Group co-funded by the Ireland's Department of Agriculture Food and the Marine and the EU. The Biorefinery Glas Group will coordinate one of Europe's first small-scale biorefinery demonstration projects on farms in South-West Ireland during 2019 and 2020. Biorefinery Glas supports farmer diversification into the circular bioeconomy.



## MORE INFORMATION

For more information and access to our project practice abstract - please visit: <https://ec.europa.eu/eip/agriculture/en/fin-d-connect/projects/biorefinery-glas-small-scale-farmer-led-green>



@BiorefineryGlas



<https://www.linkedin.com/company/biorefineryglas/>



Biorefinery Glas

### Operational Group Partners





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This EIP-Agri project is co-funded by Department of  
Agriculture, Food and the Marine and the EU Commission

Links:

<http://www.engineersjournal.ie/2018/05/29/biorefineries-small-scale-bioeconomy-opportunities-agriculture-sector/>

<https://ec.europa.eu/eip/agriculture/en/find-connect/projects/biorefinery-glas-small-scale-farmer-led-green>