#### **Partners**













#### **Funding Agencies**



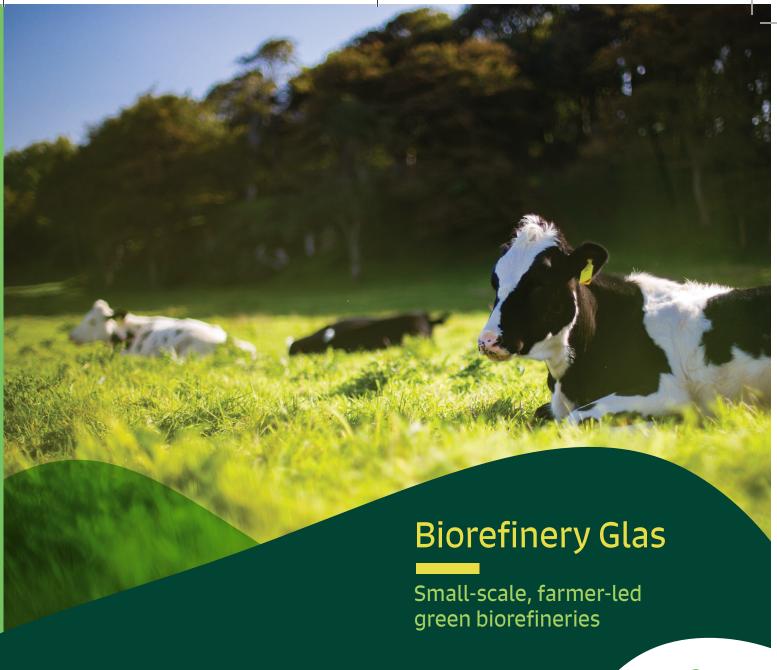




The European Agricultural Fund for Rural Development: Europe investing in rural areas



Biorefinery Glas is a European Innovation Partnership (EIP) funded by the Department of Agriculture, Food, and the Marine (DAFM) under the Rural Development Programme 2014-2020

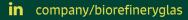


For further information please contact:





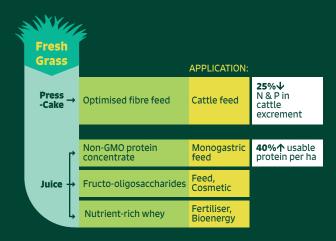












### Overview

Biorefinery Glas is a European Innovation Partnership (EIP) Operational Group funded by Department of Agriculture, Food and the Marine under the Rural Development Programme 2014-2020.

Led by the Institute of Technology, Tralee,
Biorefinery Glas has a total of 5 partners including
the Barryroe Co-operative, the Carbery Group,
GRASSA B.V. and University College Dublin.
Biorefinery Glas is a first demonstration of
small-scale biorefinery in Ireland, supporting
development of new business models and farmer
diversification into the circular bioeconomy.
Biorefinery Glas is a first step towards changing the
role of farmers in the bioeconomy, from suppliers
of biomass to producers of finished and semifinished products.

# Objective

Biorefinery Glas aims to improve the sustainability, value and resource efficiency of Ireland's livestock sector through farmer diversification into the bioeconomy. The project also assesses the potential role of grass biorefinery in supporting sustainable and resilient communities in rural Ireland.

The project will demonstrate a replicable small-scale biorefinery with farmers in the West Cork Region. Through biorefining, perennial ryegrass is fractionated into a variety of new products in a process which improves the protein efficiency, value and sustainability of our grasslands.

## **Approach**

The biorefinery approach converts freshly harvested grass into a range of products, including; an optimised protein fibre feed for cattle, a non-GMO protein concentrate feed for monogastrics, a high-value sugar stream of fructo-oligosaccharides and a grass whey for bio-fertiliser or bioenergy applications.

The project targets a 40% increase in usable protein per hectare. The project also expects to achieve a 25% reduction in nitrogen and phosphorous emissions in cattle excrement, with additional emissions savings through displacement of soybean feed imports with a grass-based monogastric feed.

The project also demonstrates and evaluates an innovative business model for farm diversification into the circular economy and supports farmers with a range of knowledge exchange and dissemination activities. The experiences of participating farmers will be documented through our Digital Storytelling Initiative for the Bioeconomy.