



The HEI perspective on BBI JU

Dr. Helena McMahon

INSTITUTE OF TECHNOLOGY
TRALEE
INSTITIÚID TEICNEOLAÍOCHTA TRÁ LÍ



The Journey....

- *Navigating the system*
 - ***Growing Your Profile***
- *Cracking the Code*
- *Learnings....*

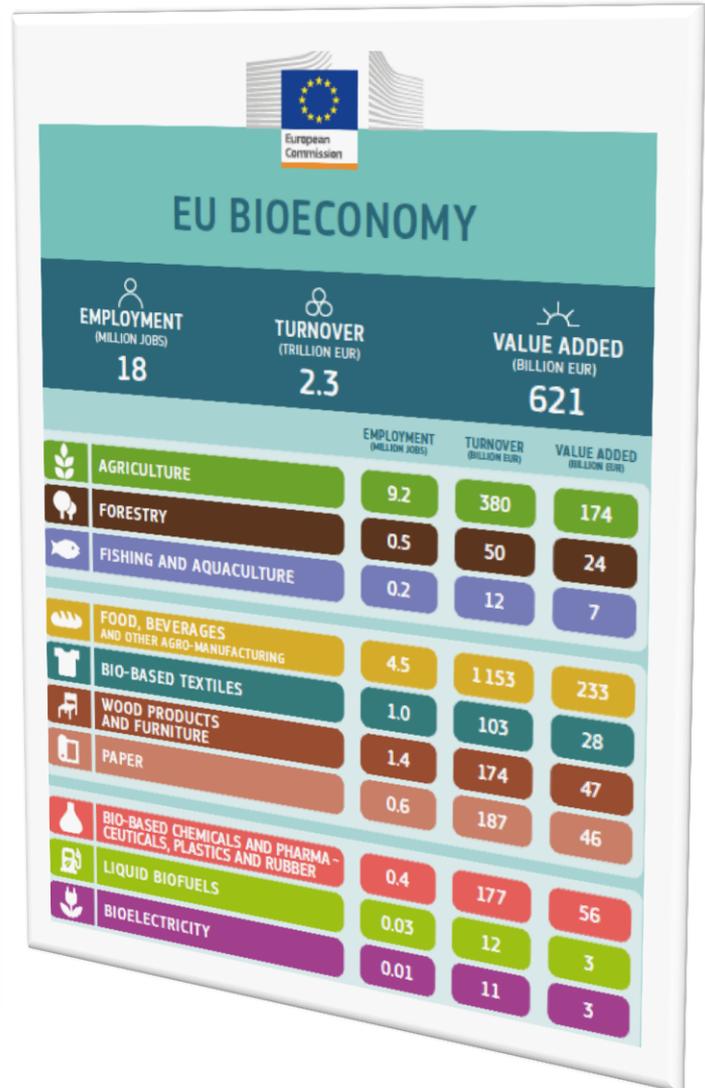
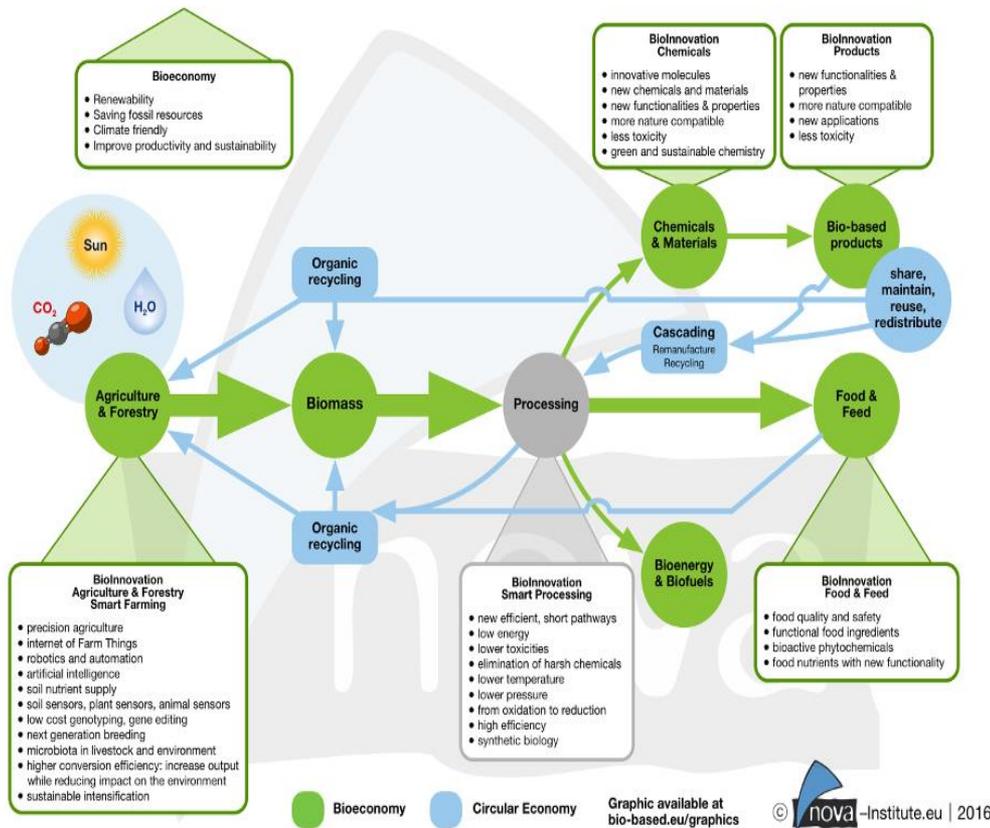
Where to Start When You
Don't Know Where to Start



NAVIGATING THE SYSTEM?

European Bioeconomy

Bioeconomy: More than Circular Economy



Strategy & Policy

Bioeconomy: the European to use our natural resources
Action plan 2018

A new bioeconomy
The European bioeconomy is one of encompassing agriculture, forestry annual turnover of around 2 trillion

Why do we need the bioeconomy?
We live in a world of limited resources. Global food with a grain of conscience for food, feed and energy and circular economy contributes to accelerating

THE BIOECONOMY HAS A HUGE POTENTIAL
Job creation
The bioeconomy already accounts for 18% of the EU's workforce. Bio-based industries could create up to 4000 jobs in rural and coastal areas by 2020 especially in rural and coastal areas. Example: The local deployment of one bioeconomy can create up to 4000 jobs in four years and bring high value organic waste in cities could create 1200 jobs in the long run.

ENRD Thematic Strategy
'Mainstreaming the Bioeconomy'

EIP-AGRI Workshop
Opportunities for farm diversification in the circular bioeconomy
FINAL REPORT
MAY 2019

European Bioeconomy

WHAT IS THE BLUE ECONOMY?
All economic activities related to oceans, seas and coastal. Blue economy covers a wide range of established, established and emerging sectors.

ESTABLISHED SECTORS
Sectors with long-term presence and high potential for future development

EMERGING SECTORS
New sectors showing high potential for future development

ENABLERS OF THE BLUE ECONOMY

BLUE ECONOMY

CIRCULAR ECONOMY
Closing the loop
AN AMBITIOUS EU CIRCULAR ECONOMY PACKAGE

EUROPEAN RESEARCH & INNOVATION FOR FOOD & NUTRITION SECURITY

More needs to be invested in research and innovation (R&I) to find solutions to the challenges facing our food systems, such as: hunger, malnutrition, obesity, climate change, sustainability, scarce resources, waste

R&I for future-proofing food systems

precision farming, 3D printing, processed foods, bioplastics

FOOD PRODUCTION → **PROCESSING** → **PACKAGING**

FOOD SYSTEMS
The way food is produced and how it affects our health, wellbeing and the environment

WASTE STREAMS → **HEALTHY PEOPLE** → **DISTRIBUTION** → **LOGISTICS**

EU investments in R&I to shape tomorrow's sustainable food systems
by focussing on four key areas

Nutrition & Health
How can R&I tackle obesity and malnutrition while reducing hunger?
2 billion people overweight or obese
795 million people hungry & malnourished

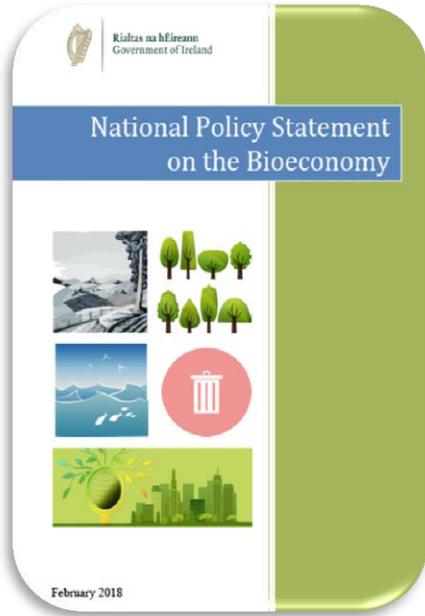
Climate & Sustainability
How can R&I reduce the EU and environmental footprint of food systems while making them resilient to climate change?
-30% of greenhouse gas emissions from the food production needs to be cut

Innovation & Communities
How can R&I promote jobs and empower rural, urban & coastal communities?
The EU is the world's top food exporter
4.25 million people employed in the food sector
75% of the turnover of the EU's bioeconomy comes from agriculture, food, fisheries & aquaculture

Circularity & Resource Efficiency
How can R&I increase resource efficiency and reduce food losses & waste?
1/3 of the food produced is wasted
1.3 billion tonnes a year

GET INVOLVED IN THE DEBATE! #FOOD2030EU
<http://ec.europa.eu/research/food2030>

The Irish Bioeconomy Ecosystem



Project Ireland 2040
National Planning
Framework



EU Funded Bioeconomy RDI



Networking



BIOECONOMY IRELAND DAY 2018

CONNECTING IRELAND'S BIOECONOMY



AgroCycle - a 'circular economy' for the agri-food sector

Kildare, Ireland
Friday 29th March, 2019



Developing the Bioeconomy in Ireland
Identifying Barriers & Proposing Solutions

This event is supported by the Environmental Protection Agency

epaResearch
Climate - Water - Soils



BioÉire Event

Next Steps for the Irish Bioeconomy
Supply, Demand, Business & Research Considerations

Teagasc Food Research Centre, Ashtown, Co. Dublin

Monday March 20th
9am to 2pm



Sustainable & circular Bioeconomy
the European way



EIP-AGRI SEMINAR DIGITAL INNOVATION HUBS FOR AGRICULTURE
1-2 JUNE 2017 - KILKENNY, IRELAND

eip-agri
AGRICULTURE & INNOVATION



CIRCULAR ECONOMY

European Commission | European Economic and Social Committee

STAKEHOLDER CONFERENCE
6-7 March 2019

#CircularEconomy #InvestEU #CEstakeholderEU



COILLTE
WOOD TRANSFORM SYSTEM

WE INVITE YOU TO JOIN US AT OUR
GROWING THE IRISH FOREST BIOECONOMY
BREAKFAST SEMINAR



JUN 13

ICT-BIOCHAIN: Digitizing Ireland's Bioeconomy
by ICT-BIOCHAIN

Free

BBIJU

CRACKING THE CODE

Cracking the Code - BBI JU



BIO-BASED INDUSTRIES
Public-Private Partnership

Amended ANNUAL WORK PLAN and Budget 2019
for the
Bio-based Industries Joint Undertaking



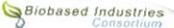
BIO-based Industries Consortium

SIRA

STRATEGIC INNOVATION & RESEARCH AGENDA



BIO-BASED INDUSTRIES
for Development & Growth in Europe



Biobased Industries Consortium

Bioeconomy and the UN Sustainable Development Goals

A view from the Bio-based Industries Consortium - July 2018

The United Nations Sustainable Development Goals (SDGs) aim to tackle global challenges related to social, economic and environmental aspects. In November 2016, the European Commission published its Communication on "Next Steps for a sustainable European future" as a first step towards the implementation of the SDGs in the EU.

Research and Innovation (R&I) are expected to make a bigger contribution to achieving EU policy priorities in the future, in particular for the SDGs. The circular bioeconomy can bring huge opportunities in achieving the SDGs if managed sustainably and policy coherence is achieved.

This paper provides a summary, examples and an outlook on the contribution of the Bio-Based Industries to the SDGs.



Building a Circular Bioeconomy

Info Days & Brokerage

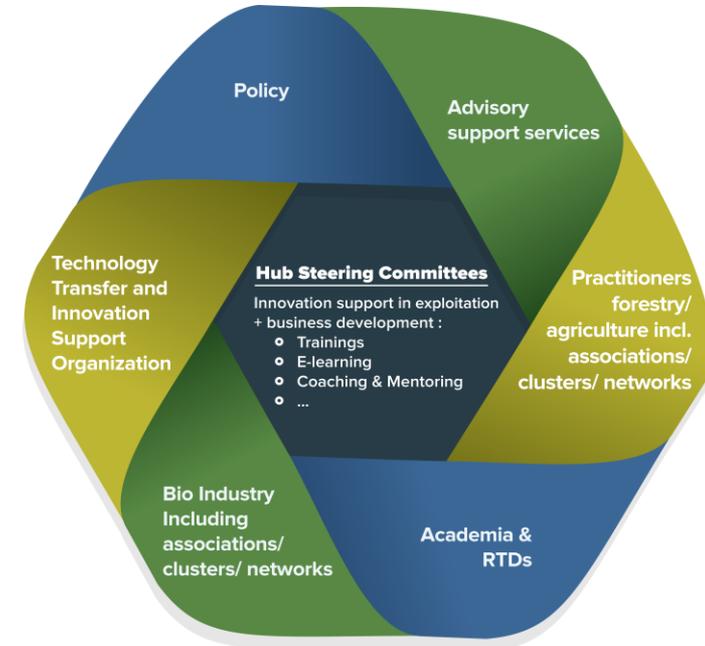
- *Partnering Platform*
- *Call Topic Analysis*
- *NCP Engagement*
- *Be selective*
- *Up the Ante!*
- *Divide & Conquer*
- *Tune in.....*
- *Follow up*
- *Financial Supports*





Workprogram

- Multi-actor cooperation realized through Biomass Innovation Design Hubs
- Innovation partnership groups on selected exploitation topics
- Innovation partnership groups on idea to business model development
- Multi-actor projects and operational groups for EIP AGRI



ICT-BIOCHAIN -Efficient Biomass Supply Chains for Sustainable Chemical Production

OUR GOALS



Establish multi-actor Digital innovation Hubs (DiH) for biomass supply chains within Model Demonstrator Regions for Sustainable Chemicals



Develop region-specific bio-resource data models and provide access within hubs to best knowledge, information and technology to promote opportunities for state-of-the-art and new ICT, IoT and Industry 4.0 solutions to be integrated into biomass supply chains.



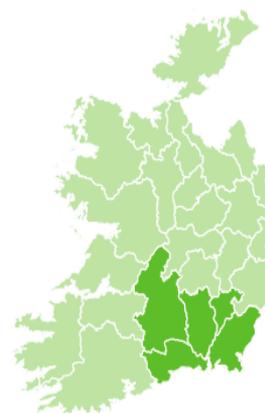
Support the growth of the EU bioeconomy by facilitating greater availability of competitively priced biomass for sustainable chemical production.



Develop value chain coalitions of multi-actors through intensive knowledge transfer and exploitation activities.



Provide a roadmap training towards replication of DIH for the biobased sector in Europe and build networks with other bioeconomy regions.



South East IRELAND

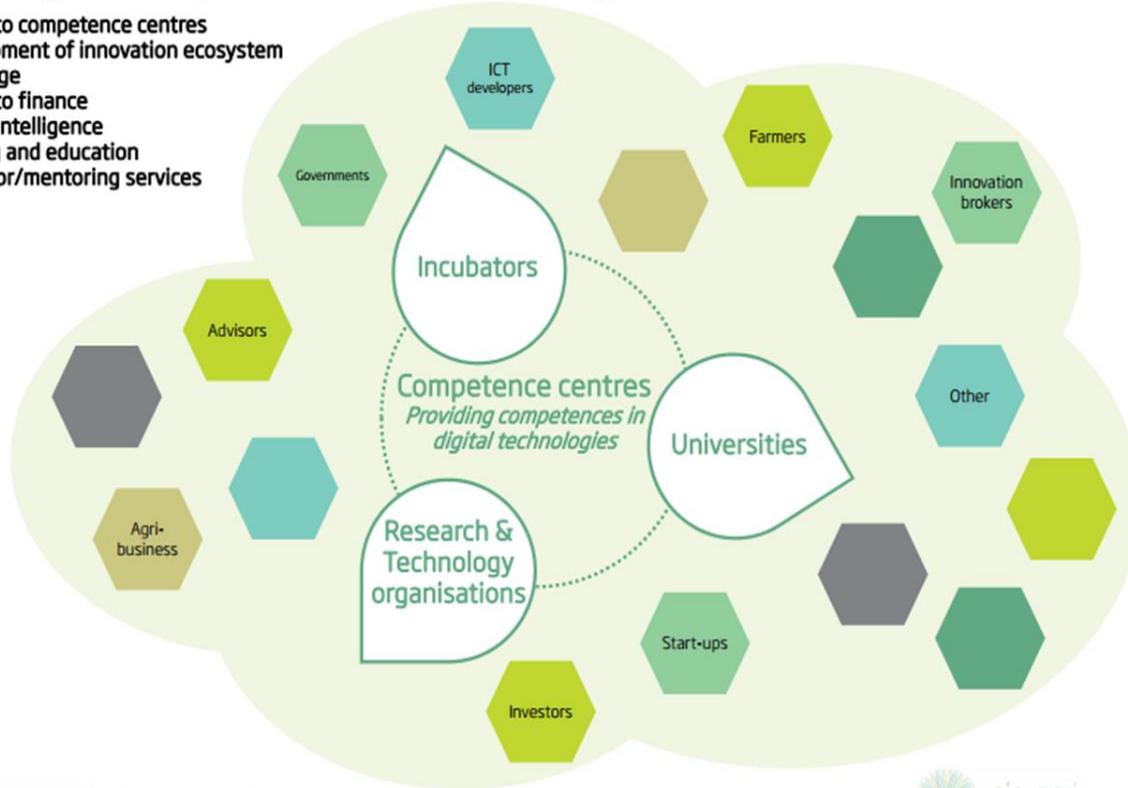


Andalusia SPAIN



A Digital Innovation Hub Organised to provide services to ICT and agricultural businesses

- Access to competence centres
- Development of innovation ecosystem
- Brokerage
- Access to finance
- Market intelligence
- Training and education
- Incubator/mentoring services



Event: Digitizing Ireland's Bioeconomy



JUN
13

ICT-BIOCHAIN: Digitizing Ireland's Bioeconomy

by ICT-BIOCHAIN

Free



Register

Description

On June 13th 2019 Ireland's National Bioeconomy Campus will host a showcase event focused on the digitisation of Ireland's agri-food, forestry and bioeconomy sectors. The event will shine a light on the opportunities for technology to play an important role in improving the efficiency and integrity of Ireland's rural supply chains. Leading digital technology providers will demo their latest innovations, and delegates from the agri-food, forestry and bioeconomy sectors will learn about the role that ICT, Industry 4.0 and Internet of Things is playing to digitise the EU bioeconomy. The event will also see the launch of ICT-BIOCHAIN Europe's first Digital Innovation Hub for a Circular Bioeconomy, a Biobased Industry Joint Undertaking network which will support Ireland's transition to a competitive data-driven bioeconomy.

Date And Time

Thu, 13 June 2019
10:00 - 16:00 IST
[Add to Calendar](#)

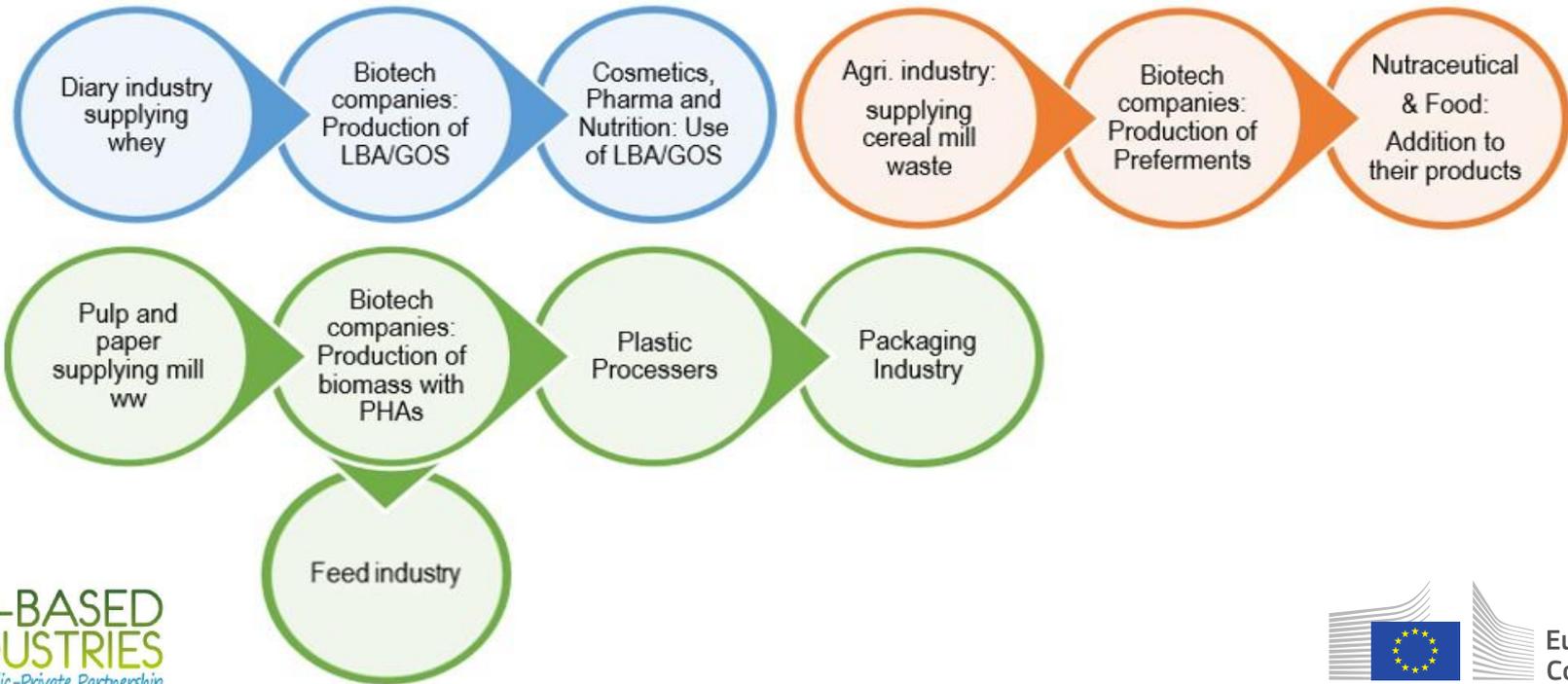
Location

Irish Bioeconomy Foundation
E41 R622 Thurles
[View Map](#)

- Production of functional innovative ingredients from paper and agro-food side-streams through sustainable and efficient tailor-made biotechnological processes for food, feed, pharma and cosmetics.



Topic: BBI.2018.SO3.D5
Type of action: BBI-IA-DEMO





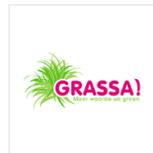
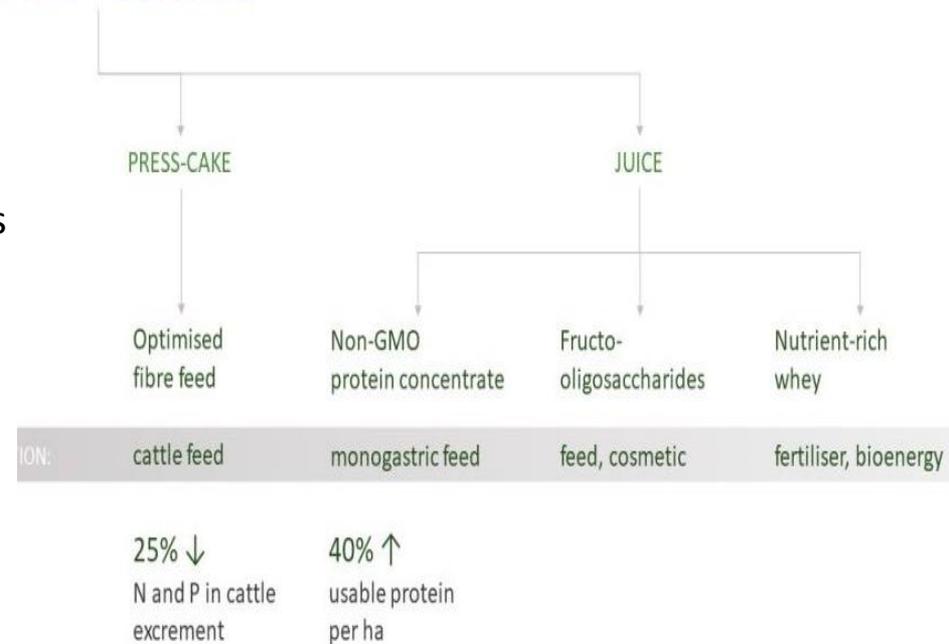
Small Scale Farmer Led Green Biorefinery

Work Program

1. Demonstration of Small Scale Grass Biorefinery
2. Validation of Products and Co-products
3. Business Models, Policy & Regulation
4. Bioeconomy Knowledge Exchange with Farmers
5. Dissemination & Project Mg

The Process

FRESH GRASS



Event: Biorefinery Glas Farm Demonstration Day



JUL
11

Biorefinery Glas: Farm Bioeconomy Demonstration Day

by Biorefinery Glas

Free

[↑](#) [♥](#)

[Register](#)

Description

On Thursday 11th July 2019, the Biorefinery Glas EIP-Agri Operational Group will host a small-scale biorefinery demonstration event at Shinagh farm in Cork, Ireland. Funded by the Department of Agriculture, Food and the Marine through the 2014-2020 Rural Development Programme. Biorefinery Glas is among the worlds first small-scale biorefinery demonstration projects and represents a viable opportunity for farmer diversification into the circular bioeconomy. Over a two-year period the project will use a multi-product biorefinery to reduce emissions, improve protein efficiency and produce a range a value-added products from grass.

Date And Time

Thu, 11 July 2019
10:30 - 15:00 IST
[Add to Calendar](#)

Location

Shinagh Dairy Farm
Bandon

FAN-BEST

Funding Atlantic Network for Blue Economy Technology Transfer

Transnational Cooperation Proposal to be submitted to the 2nd call for proposal under **Atlantic Area Programme 2014- 2020** promoted by **University of Santiago de Compostela**



LEARNINGS

Learnings....

- *It's never too early to start planning*
- *Infodays and Brokerage*
- *Immersion*
- *Multi-disciplines & actors*
- *From Chaos come clarity*
- *Imposter syndrome!*
- *Learn from others*
- *Quality Control*
- *Resilience*

