



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

# Creating & shaping the bioeconomy in Ireland

*LEADER Capacity Building Workshop – 27 November 2025*

Matthew Halpin, AAI

Research, Bioeconomy & Codex Division,

Department of Agriculture, Food and the Marine



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

# 1. Background

2. Current Activities

3. Future opportunities & next steps

# What is the bioeconomy?

## Strategic opportunity to drive green growth, competitiveness and resilience

- Making better use of our natural resources, scientific excellence, industrial strengths and local base
- Processing animal, crop, forest, marine and 'waste streams' to create food, feed, bio-based chemicals and materials, and bioenergy
- Developing practical solutions that support economic prosperity and strong rural and coastal communities, while helping industry shift to more environmentally sustainable, circular production models

## DAFM case study video series

1. Reviving the value of Irish wool
2. Turning food waste into wellness
3. Biobased plastics in Irish agriculture

## Bioeconomy in Action: Generating sustainable solutions for Ireland's agri-food sector



The bioeconomy is transforming how we use our land and sea resources. Adopting a bioeconomy approach allows us to maximise the use of our crops, forests, fish, and 'waste' streams, to create food, bio-based materials, and bioenergy in a more sustainable and circular way.

Science, innovation, and collaboration are empowering greener solutions across our agriculture, energy, construction, and packaging sectors, and beyond.

From bio-based fertilisers to bioplastics and bioenergy, the bioeconomy offers real potential for climate action, economic growth, and rural development.

Watch the videos below to see how the bioeconomy creating new value chains for farmers and agri-food businesses, empowering communities, and offering sustainable choices to consumers.

[Bioeconomy in Action video series](#)



19 FEBRUARY 2025

## Vision for Agriculture and Food

Shaping the future of farming and the agri-food sector for future generations in Europe.



# National & EU Bioeconomy Policy



## Programme for Government 2025

- Develop Ireland's bioeconomy through a coordinated approach that harnesses Ireland's natural resources and competitive advantage

## National Planning Framework

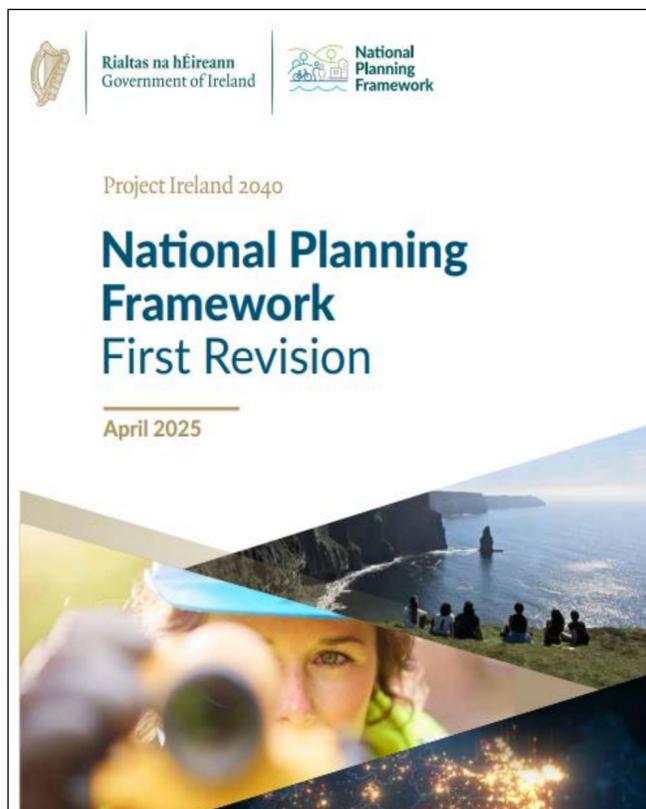
- National Policy Objective 67: Support the circular and bioeconomy including in particular through greater efficiency in land and materials management.

## Bioeconomy Action Plan 2023-2025

- Developing Bioeconomy Demonstration Initiatives for Agriculture, Forestry, Fisheries, Aquaculture

## EU Vision for Agriculture & Food

- Accelerate the commercialization of bio-based and circular solutions, scale up breakthrough biotechnologies, capture emerging market opportunities and bridge investment gaps.



# Knowledge-led approach informing bioeconomy development

New science & innovation across value chains

*CirCoVal, NXTGENWOOD, U-Protein, SPRINGWOOL, BeyondPeat*

Underpinning bioeconomy development opportunities

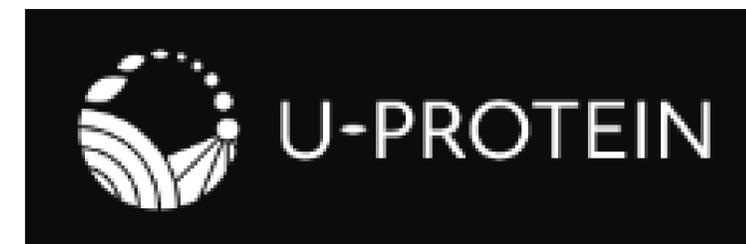
*INFORMBIO, CBEC, BioAssess*

Informing policy, investment & regulation

*EnableBIO, FEDERI, Co-BIOECON, ABC Economy*

Capacity building – people & institutions

*BiOrbic, CircBio, Teagasc*



# Recognising the Potential & Addressing the Challenges



## Major untapped potential

- **New business opportunities** for rural, regional, urban and coastal areas – innovative new biobased products & services (e.g., fermented foods, biobased fertilisers, bioplastics)
- **Support sustainable food systems** – unlock full value of biomass & bioresources, increasing food security, reduce reliance on critical imports (e.g., such as feed and fertiliser)
- **Support climate action** – displace fossil fuels with biobased alternatives, decarbonisation of key sectors, promote a circular economy, reduce waste

## But need to address key challenges:

- Sustainable supply of bio-based resources from land, sea, agri-food processing, and waste sectors
- Scientific & financial risk associated with scaling-up practices, technologies, engineering & capacity
- Developing bioeconomy value chains & business models, including demand for bio-based products, enabling market deployment, and uptake of different business models including cooperative approaches



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

1. Background

**2. Current Activities**

3. Future opportunities & next steps

# Piloting and demonstrating the bioeconomy



## Why?

- Demonstrate the bioeconomy in action
- Stimulate activities which could be replicated
- Bring multiple stakeholders together
- Understand how to establish bioeconomy value chains

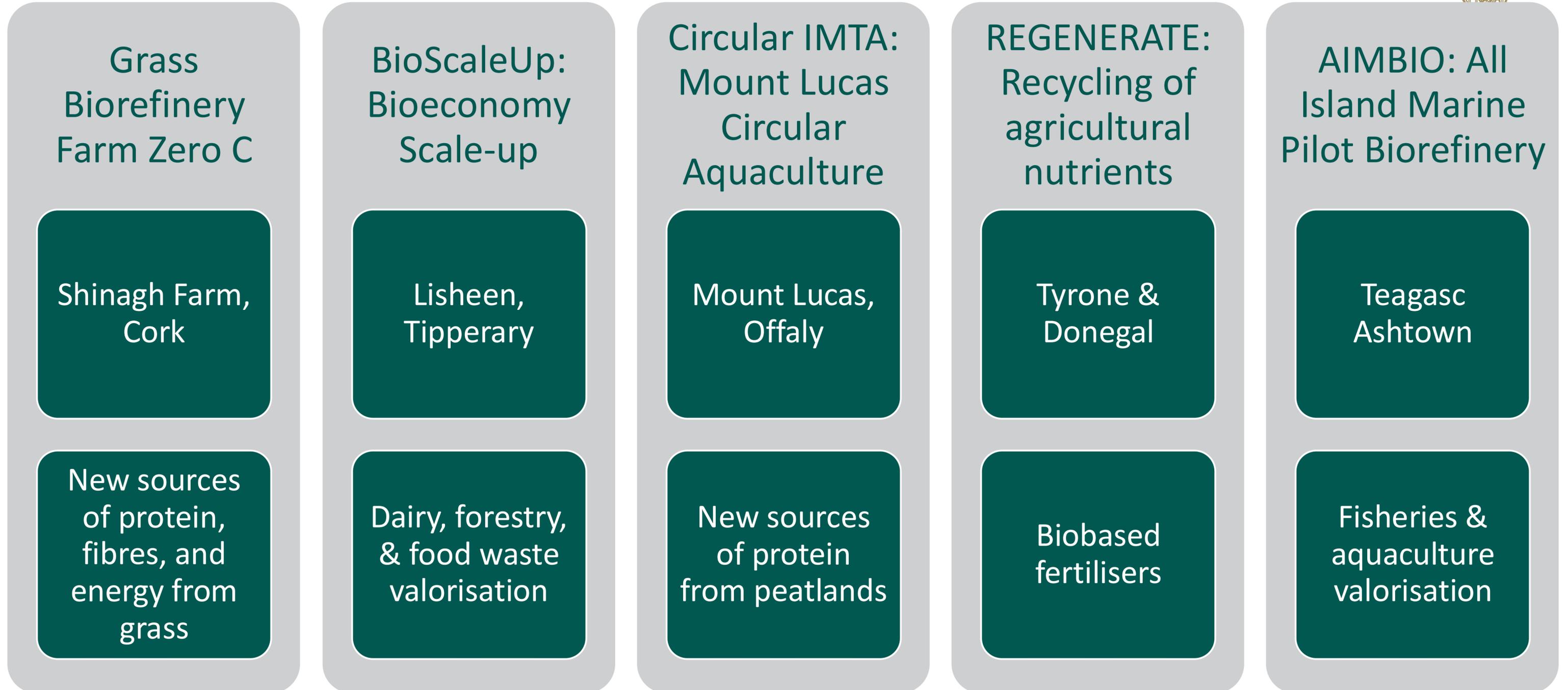
## How?

- Alleviate the risks associated with scaling-up
- Funding for infrastructure & operational costs, including people
- Supporting participation of multiple actors



**DAFM has invested over €30 million in last 3 years**

# Piloting and place-based demonstration of the 'bioeconomy in action'



# New Emerging Initiatives



## Comhar Bia – Irish Cooperative Organisation Society

- Service being developed by ICOS
- Supporting the development of regional, co-owned biorefineries
- Multi-feedstock & multi-output
- AD as a platform technology, but not only energy only activity

## Potential significance

- Examining high-value outputs such as biobased fertilisers, bio-materials, chemicals, and food and feed ingredients, as well as renewable energy
- Bringing diverse actors and stakeholders together, including primary producers, local communities, co-ops, as well as academia, policy stakeholders, local/regional authorities.
- Meeting the climate targets for several sectors at regional level – industrial symbiosis



# Practical Upskilling for the Bioeconomy



- Teagasc, in partnership with the Rural Food Skillnet, recently held training courses at Teagasc Food Research Centre, Moorepark, Fermoy, Co. Cork.
- These courses were designed to support food and beverage businesses in developing technical skills and help to unlock new opportunities for food producers.
- The courses addressed a growing consumer interest in fermented foods presents, introducing participants to the principles and practices of fermentation, with a focus on artisanal products such as kombucha, kefir, and fermented dairy.



[Microbiology and Fermentation training for the food and beverage sector - Teagasc | Agriculture and Food Development Authority](#)



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

1. Background

2. Current Activities

**3. Emerging opportunities & next steps**

# Key opportunities – at a glance



## Key sectors for sustainable supply

- Agriculture
- Forestry
- Marine
- Food industry
- Chemical industry
- Waste industry

## Key sectors for value-add demand

- Food & feed, incl. ingredients
- Packaging
- Textiles & fibres
- Construction & building materials
- Chemicals (e.g. biopolymers)
- Personal care & cosmetics

# Key opportunities for agri-food sector



Integration of valorisation, biorefining and biomanufacturing into the following value chains...

- Meat & Dairy
- Crops, including grass, protein, oil and cereal crops
- Forestry
- Fisheries & aquaculture
- Carbon farming / Rewetting / Paludiculture
- Alignment with anaerobic digestion/biomethane
- Alignment with fermentation development
- Food waste prevention

...to produce new food, feed and biobased ingredients for the commercialisation of innovative products.

**Beneficial for the farming/forestry/fisheries/rural economy, and its communities, by**

- enabling diversification, generate more value from farm/forestry/blue/biowaste residues
- strengthening the role of primary producers in the value chain



# Development of national bioeconomy strategy for Ireland

Build on new EU Bioeconomy Strategy

Follow on from Bioeconomy Action Plan 2023-2025





# Ireland to host Global Bioeconomy Summit in 2026



20-21 October 2026, Convention Centre Dublin

Taking place during Ireland's rotating presidency of Council of the European Union





## Contact DAFM:

[Patrick.Barrett@agriculture.gov.ie](mailto:Patrick.Barrett@agriculture.gov.ie)

[Matthew.Halpin@agriculture.gov.ie](mailto:Matthew.Halpin@agriculture.gov.ie)