



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

**Shared Island  
Fund -  
Bioeconomy  
Demonstration  
Initiative Scheme**



**Shared Island  
Initiative**

# Contents of Information Session



- 10:00-10:05am** Welcome and Introductions - Gráinne Lennon, InterTradeIreland (chair)
- 10:05-10:10am** The Shared Island Initiative - John Ó Liodáin, Assistant Principal - Shared Island Unit, Dept. of the Taoiseach
- 10:10-10:25am** What is the Bioeconomy and Strengths and Opportunities for the Bioeconomy on the island of Ireland  
Speaker (Ireland) – Dr. Karl Walsh, Head of Research and CODEX, DAFM  
Speaker (Northern Ireland) – Ciara Reynolds, Deputy Director Innovation and Change, DAERA
- 10:25-10:40am** The Shared Island Funding Opportunity & proposal expectations  
Patrick Barrett, Agricultural Inspector - Bioeconomy, Agriculture Knowledge & Innovation System & Agri-Digitalisation, DAFM
- 10:40-10:45am** Next Steps (regional workshops/clinics and survey/stakeholder engagement)  
Dr Elaine Groom, Northern Ireland Contact Point for Horizon Europe (Food, Bioeconomy, Natural Resources, Agriculture and Environment), AFBI/DAERA
- 10:45-11:10** Q&A
- 11:10-11:15am** Close  
Gráinne Lennon, InterTradeIreland



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## Shared Island Fund – Bioeconomy Demonstration Initiative Scheme

What is the Bioeconomy and Strengths and Opportunities for the Bioeconomy on the island of Ireland?

Dr. Karl Walsh, Head of Research and CODEX, DAFM

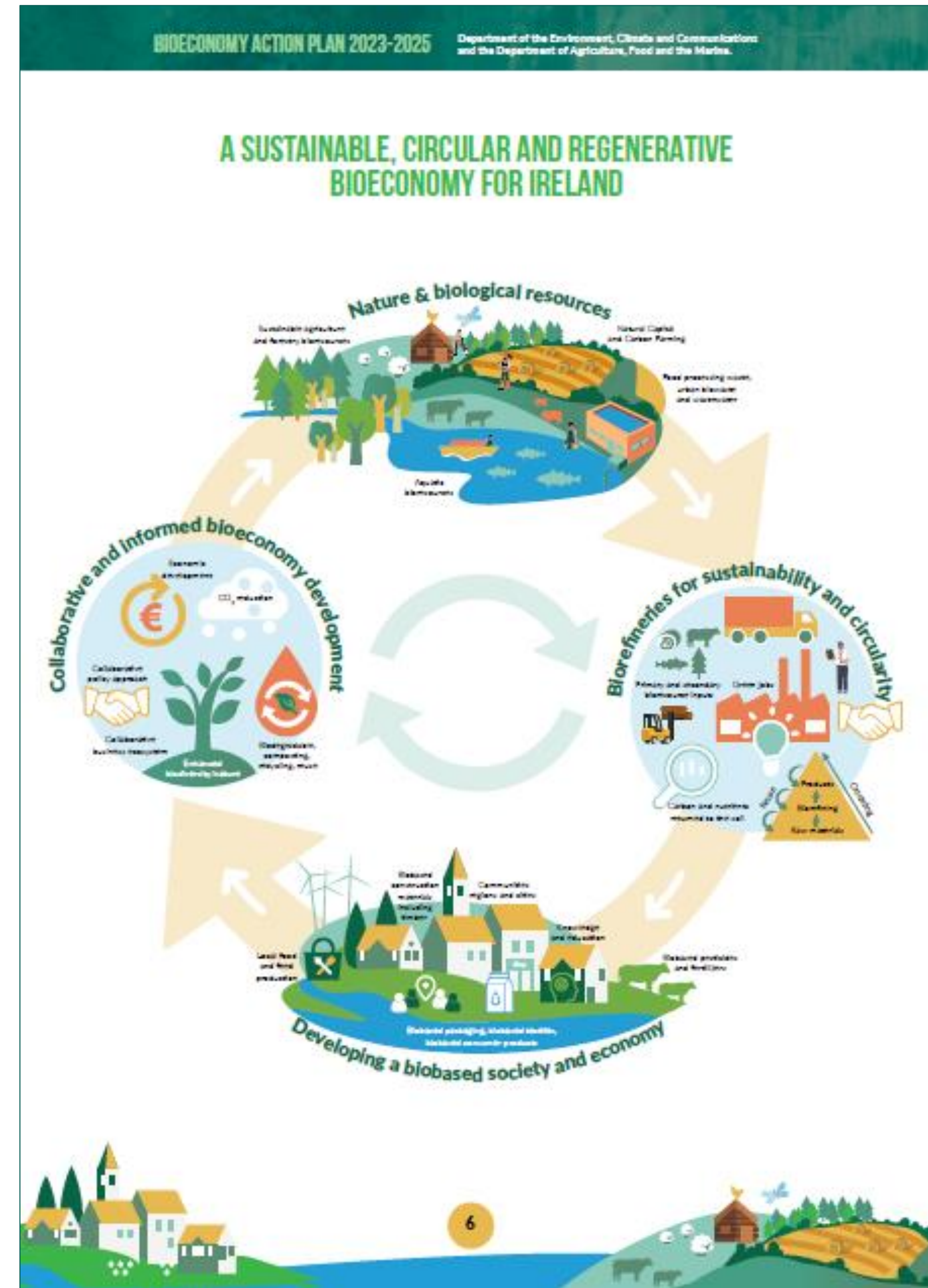
2023

# What is the Bioeconomy?

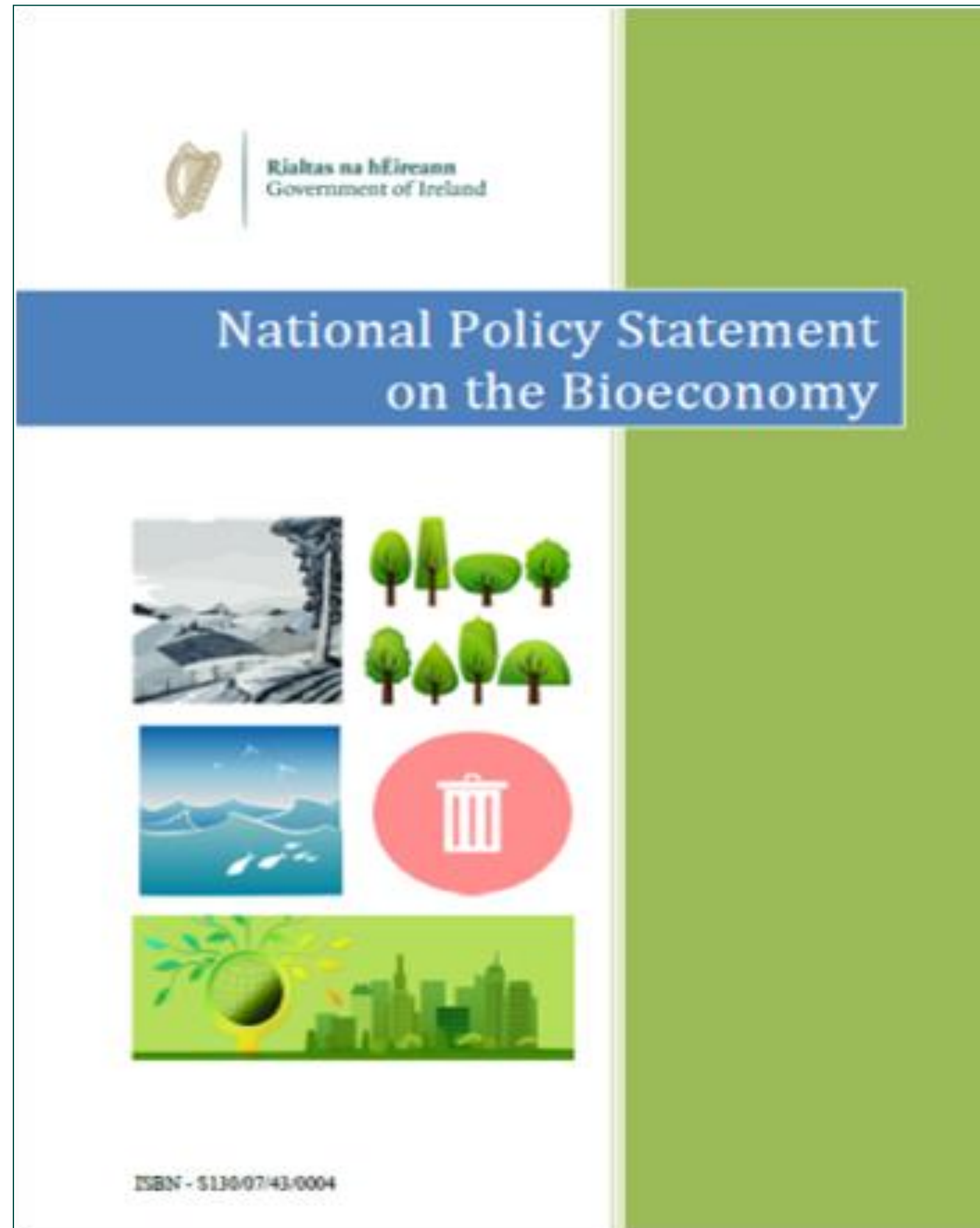
1. Involves Agriculture, Forestry, Fisheries, Aquaculture, that produce biological resources but **require transformation**
2. Involves opportunities to develop (e.g. carbon farming, insects, micro-algae) **novel green sources of income**
3. Involves biobased Industries that process biological resources and **need modernisation including decarbonisation**
4. Involves Cities, Regions & Communities where bioresources are accumulated and **which need to address biowaste challenges**
5. Involves Systems & Sectors that need to defossilize (energy, construction, chemicals) and need sustainable sources of renewable carbon and to **green their supply lines using biobased products, innovations and solutions**

Enabled by systemic thinking

- Principled approach
- Knowledge, Research, Innovation, & Skills,
- Cross-Sectoral development
- Local bottom-up approaches, integrated local development including multi-sectoral strategies, partnerships, networking, innovation & cooperation)



# Ireland's Bioeconomy Policy



## Coordination

- Cross Government Bioeconomy Policy Implementation led by DAFM and DECC – stable policy development over time

## Consultation

- Bioeconomy Stakeholders Forum – building collective knowledge and leadership

## National Development Plan & National Planning Framework

- Bioeconomy development is part of long-term planning and investment horizons with long term commitment

## National Bioeconomy Policy Statement - Policy Implementation Framework

- Reinforced policy co-ordination and stakeholder engagement
- Research, innovation, and skills
- Development of markets and competitiveness

# Investment in Research, Innovation, and Skills



- 60 million + investment
- Increase in expertise, capacity, capability, equipment, facilities, engagement with industry
- Enhanced role of Research Centres, State Agencies, Local Authorities
- Emerging role of Clustering
- Establishing and maintaining long-term collaborative partnerships and networks

## Publication

### Bioeconomy Ireland Week 2022 Launch and Bioeconomy Research Symposium

From [Department of Agriculture, Food and the Marine](#)

Published on 24 November 2022

Last updated on 24 November 2022

On Monday the 17th of October 2022, 118 delegates from across Ireland's bioeconomy; Departments, agencies, higher education institutions, industry, and civil society, gathered at the Department of Agriculture, Food, and the Marine's (DAFM) Backweston Campus in Celbridge, Co. Kildare for the launch of Bioeconomy Ireland Week 2022. The launch was followed by a Bioeconomy Research Symposium that highlighted the investment of 25 million euro by the Department research aiding the development of Ireland's bioeconomy.



# Reinforced policy coordination and stakeholder engagement



Press release

## Ministers publish series of bioeconomy reports

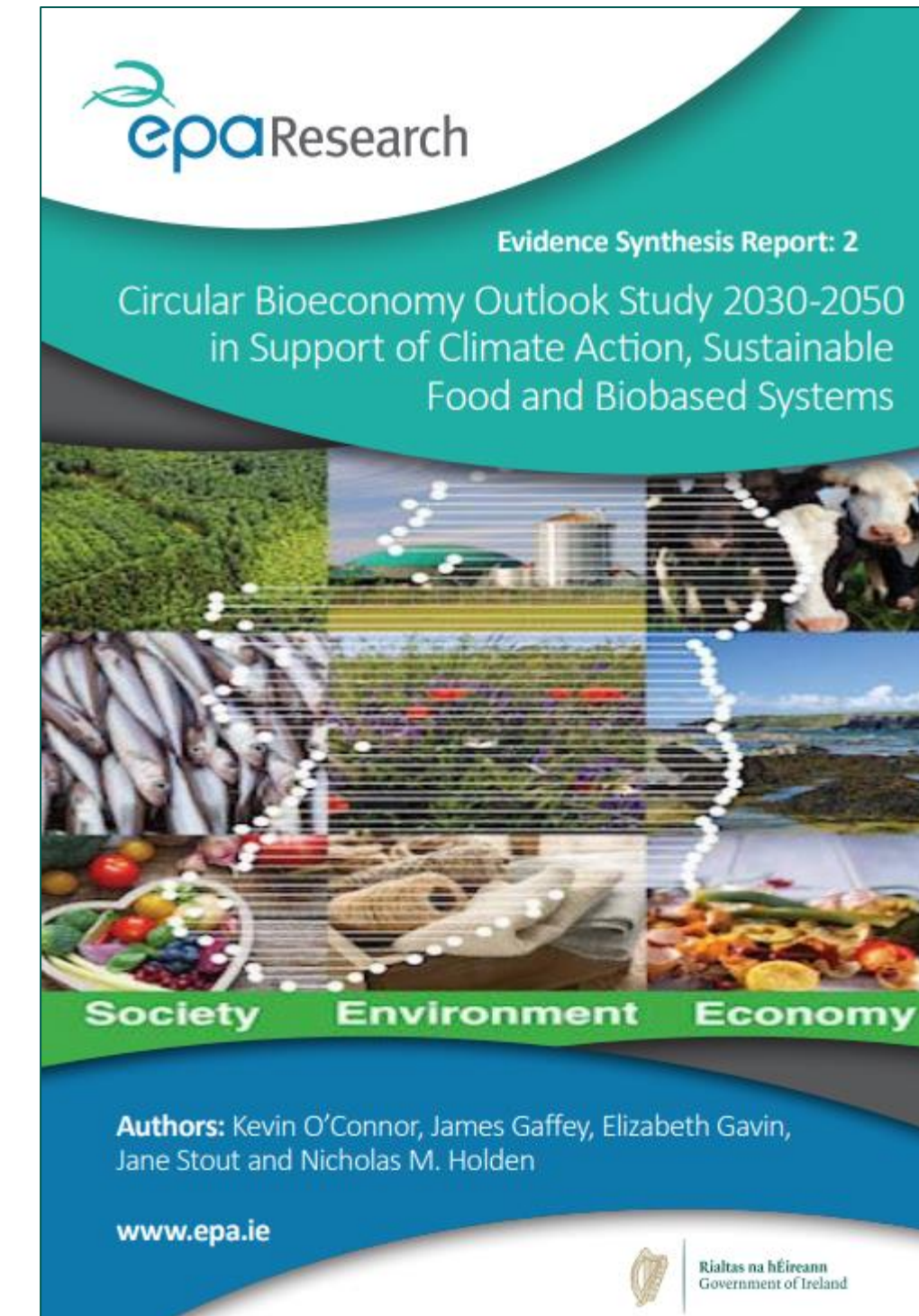
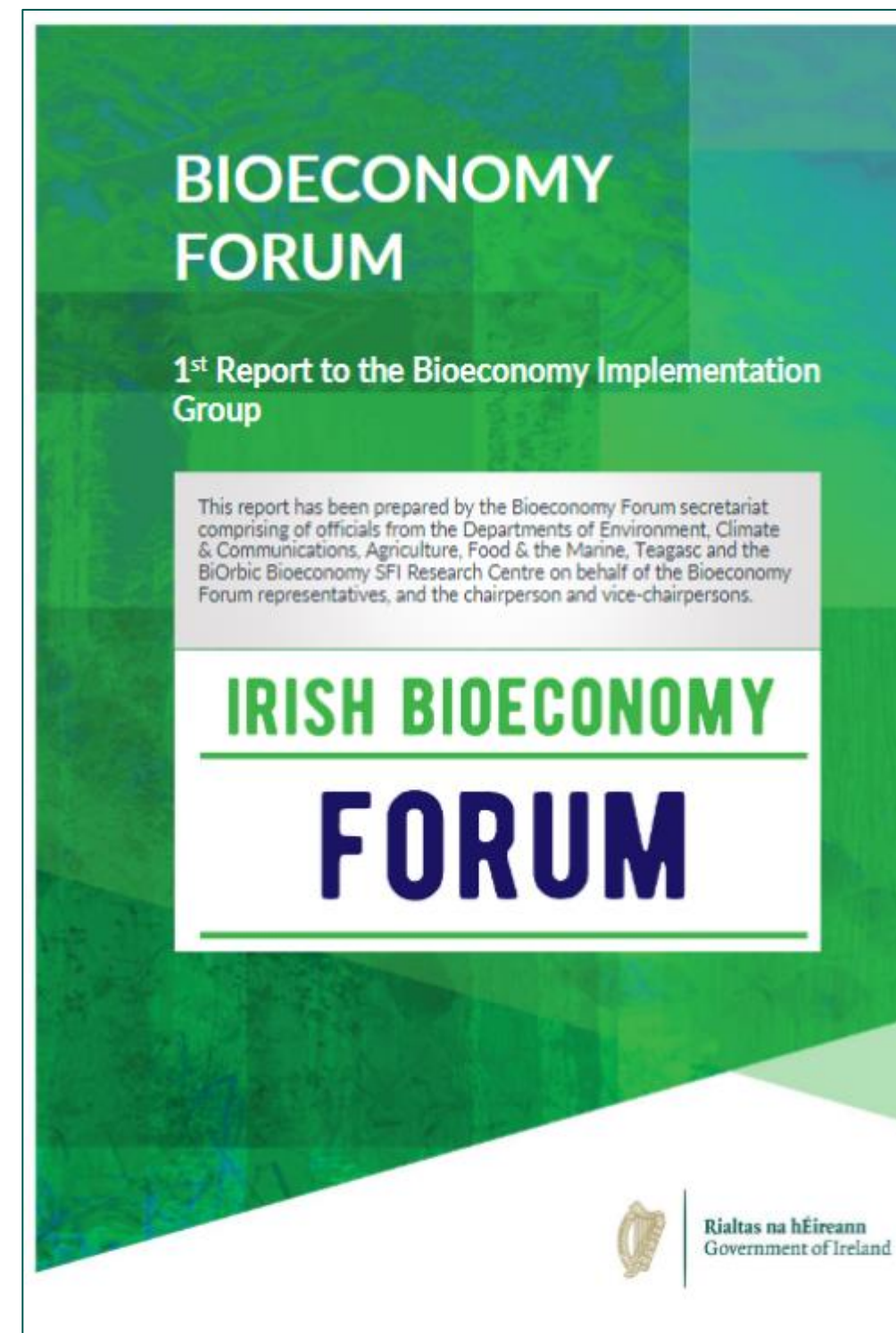
From [Department of Agriculture, Food and the Marine](#)

Published on 22 May 2023

Last updated on 22 May 2023

The Ministers for Agriculture Food and the Marine today published two important reports relating to Ireland's bioeconomy, namely the second progress report on the implementation of the National Policy Statement on the Bioeconomy, and the first report of the Bioeconomy Stakeholder Forum. Both reports were recently brought to Government.

The bioeconomy is the production, utilisation, and regeneration of biobased materials. It offers opportunities to reduce greenhouse gas emissions in the agri-food system by replacing fossil-based resources and processes with biological ones, from biofertilisers and biopesticides, to new food sources, bio-based plastics and textiles, and biological waste management, to name just a few.



## Reporting to Government

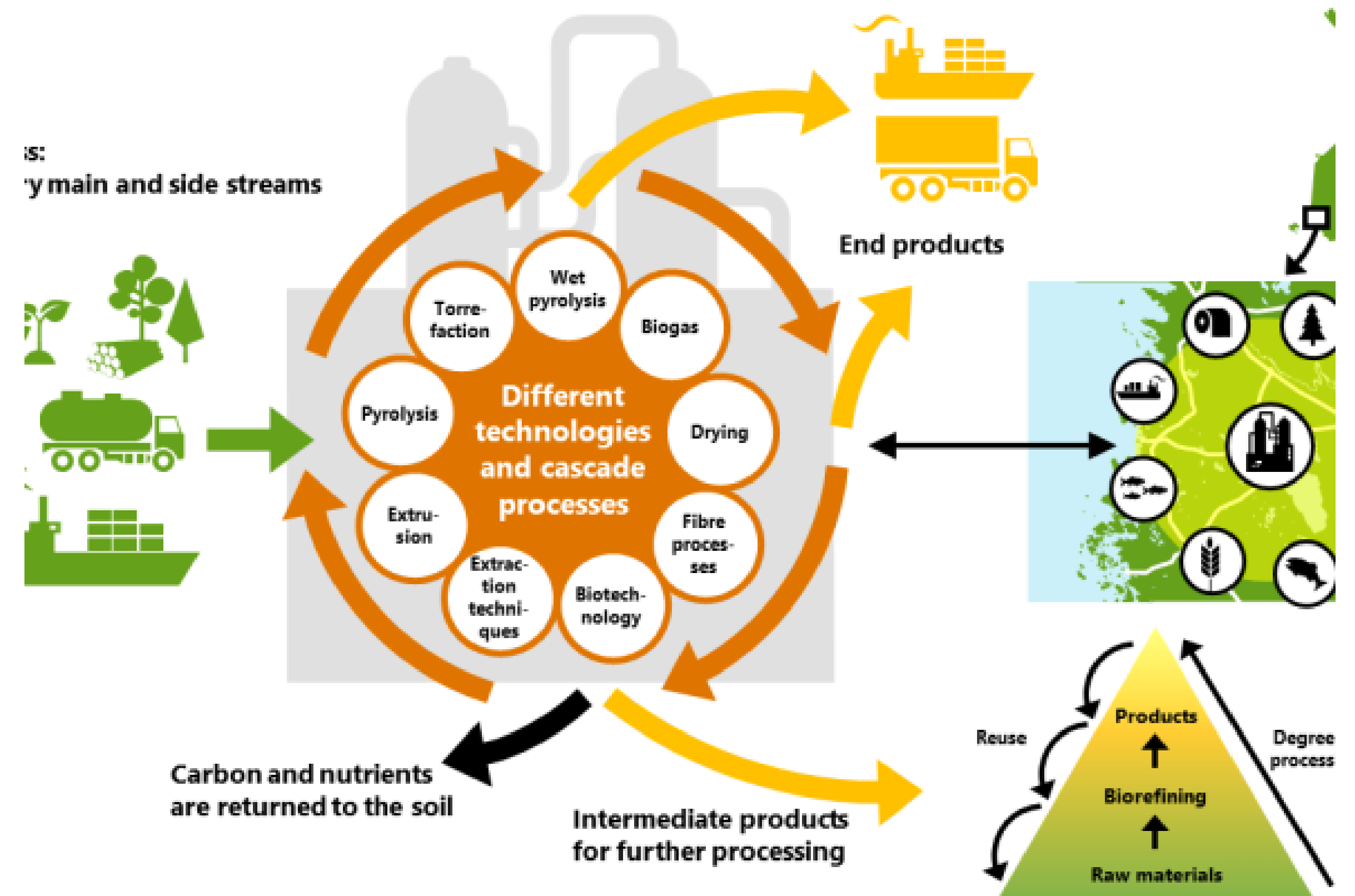


## Considering stakeholder & expert views

# Development of markets and competitiveness



- Investment in innovation (piloting & demonstration) infrastructure
- Development of new supports for CAPEX & OPEX
- Examining regulatory considerations aligned to innovation / technological development
- Development of routes to market for biobased products (case by case basis)





# Example - Investment in Research, Innovation, and Skills platforms supporting transformative agri-food development



- U-Protein – Re-engineering Ireland's agro-ecological system
- Examining the role of Crop & Marine resources as alternative sources of protein, fibres & starches.
- Impact of Alternative Plant Protein Resources on Land Use and Sustainability Indicators
- Protein Processing
- Biorefinery/Biotransformation
- Protein Profiling
- Incorporation of alternative proteins into new and existing foodstuffs



# Bioeconomy Action Plan 2023-2025



## Strategic Approach – Bioeconomy Pillars – Enhanced Policy Coordination

1. Governance & Awareness
2. Research Development & Innovation
3. Nature, Climate, Energy and Circular Economy
4. Agriculture, Food, Forestry, and the Marine
5. Communities, Regions and Cities
6. Industry and Enterprise
7. Knowledge and Skills





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# Shared Island Fund – Bioeconomy Demonstration Initiative Scheme

## Outline information for prospective applicants

2023

# Bioeconomy – Shared Island Fund



- €7 million from the Shared Island Fund.
- Funding for capital and operational expenditure
- Agri-Bioeconomy (NI) & Blue Bioeconomy (IE)



## Shared Island Initiative

# Bioeconomy Demonstration Initiatives



## Develop opportunities

- The bioeconomy has major untapped potential to support both climate change mitigation and adaptation and an innovative circular economy with value added opportunities since in current biobased industrial systems the full value of biomass is not unlocked to its fullest potential and there is very significant potential to sustainably cascade the use of biomass and valorise biological waste.

## Address Challenges

- *scientific and financial risk and development of technical capacity;*
- *scaling-up practices, technologies, and engineering; and*
- *developing the basis for cooperative approaches.*



# Purpose of the call



- Advancing a competitive bioeconomy for a sustainable future
- Develop shared-island exemplar of sustainable and circular bioeconomy development
- Develop close collaboration between stakeholders along the entire bio-based value chain, including e.g.
  - *Local Authorities*
  - *SMEs*
  - *Research Performing Organisations,*
  - *Universities, Technological Universities*
  - *Clusters*
  - *Primary Producers, Bioprocessing industries*
  - *Consumer brands*





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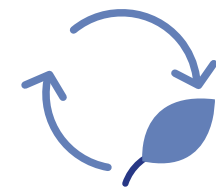
Accelerate the **innovation** process and development of bio-based innovative solutions



Increase cross-disciplinary research and innovation (R&I) activities, reaping its benefits for the development and demonstration of sustainable and circular bio-based solutions.



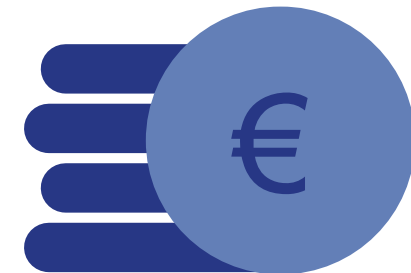
Unlock bioeconomy potential.



Increase the development and demonstration of sustainable bio-based innovations, by ensuring that sustainability issues and environmental performance are integrated throughout the whole innovation chain.



Reinforce the integration of bio-based research and innovation in bio-based industries and increase the involvement of R&I actors, including feedstock providers, in bio-based value chains and business models



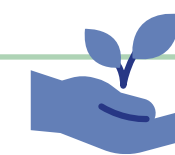
Accelerate **market deployment** of the existing mature and innovative bio-based solutions



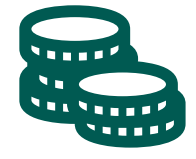
Reduce the risk for research and innovation investment in bio-based SMEs, companies and projects.



Ensure a high level of **environmental performance** of bio-based industrial systems



Ensure that circularity and environmental considerations, including contributions to climate neutrality, circularity and zero pollution objectives, are considered in the development and implementation of R&I bio-based projects and facilitate societal acceptance.



# KEY INFORMATION: FUNDING

The Bioeconomy Demonstration Initiative Scheme has a budget of €7m allocated from the Shared Island Fund

The Call has one funding instrument available

Innovation Action TRL 6-7-8

(Scale up and demonstration of technologies, first of its kind product facility)

Projects will support Operational & Capital Expenditure - Upper funding limits should not be seen as targets - one of the evaluation criteria looks at value for money.

Projects should seek to attract a **public-private funding approach boosting uptake of innovation and market deployment.**

Funded projects should take no longer than 4 years for completion

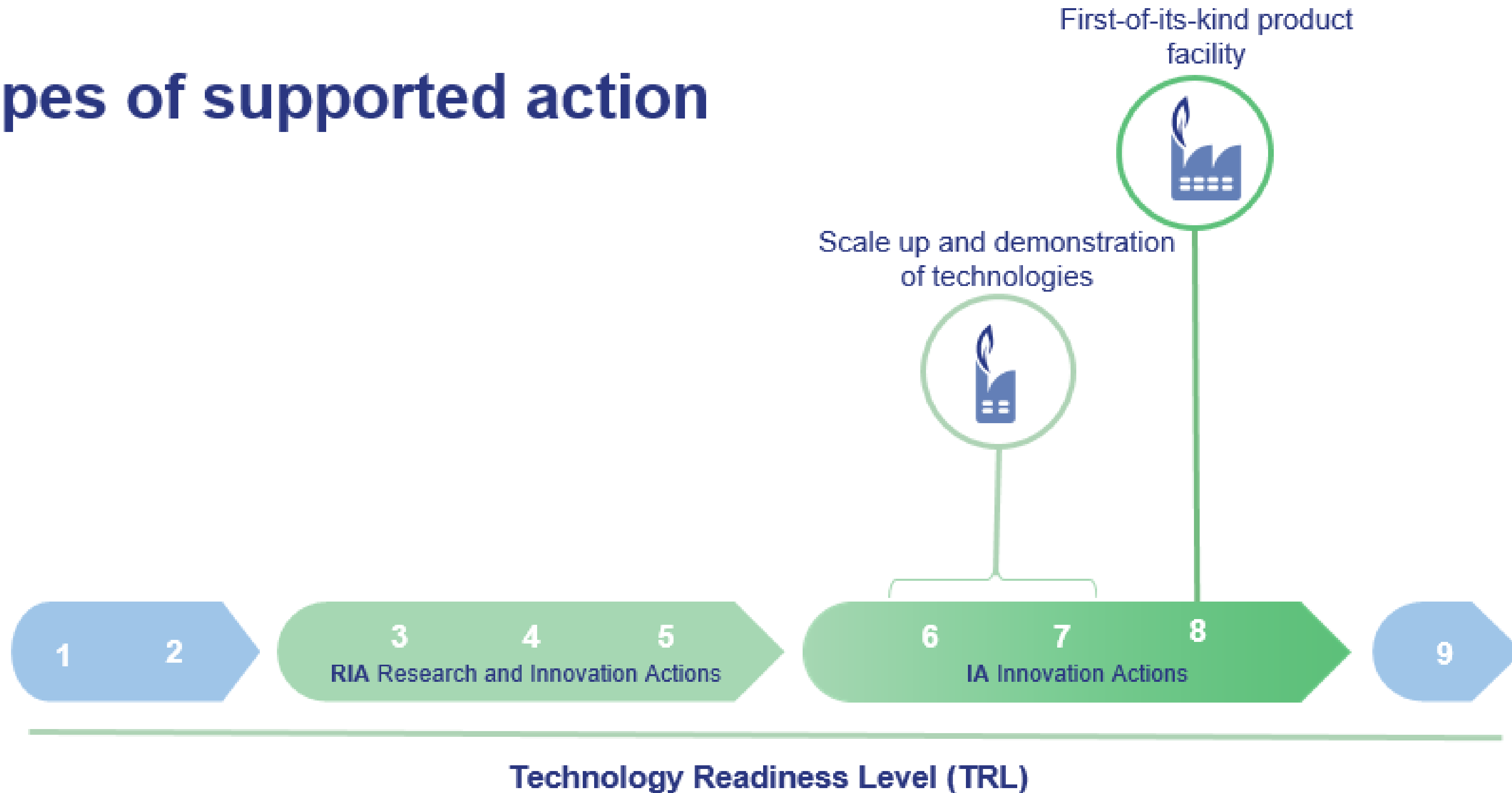
Large % of funding to be spent, after initial planning has taken place and relevant permissions received and where appropriate, on capital investments.

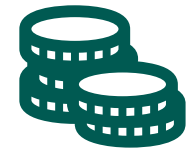
This CAPEX related to the project should remain in situ post the project duration due to attracting partners involving the provision of strategic direction, cash, in-kind contributions, related investments, and undertaking of relevant additional activities by such partners.





# Types of supported action



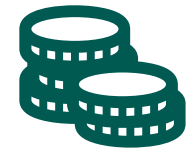


# KEY INFORMATION: SCOPE

The Bioeconomy Demonstration Initiatives funded projects will be focused on ‘the production and application of bio-based materials including biobased chemicals, materials, food and feed ingredients and soil nutrients’.

Broadly

1. **Biorefineries** for sustainable processing of biomass into an array of **value-added products** (e.g., bioactive substances, chemicals, materials, food, feed) with the lead focus being on such biobased materials.
2. The **feedstock** for bio-based operations should respect local ecological limits and protect and enhance biodiversity and ecosystems services and should come from short supply chains as much as possible.
3. Activities that do not meet the agreed requirements of **climate and environmental performance** will not be supported and projects should demonstrate the potential of bio-based solutions in terms of climate and environmental performance, and circularity.
4. Accelerate the **innovation process, development and market deployment of innovative bio-based solutions** considering the utilisation of shared local and indigenous resources and leveraging benefits of scale, cooperation and/or industrial symbiosis
5. Capitalize on **scientific and technological developments**
6. Supported activities should **contribute to local, and territorial economies**



# KEY INFORMATION: SCOPE

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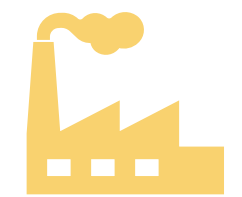
- *Specifically:*

1. The Demonstration Initiative(s) must provide policymakers, public and private investors and local communities with **concrete and demonstrated examples** of biobased innovation and solutions.
2. The Demonstration Initiative(s) should develop **cooperation approaches** to align natural capital, primary production and circular bioeconomy value chains based on the consideration of these foundational steps.
3. The Demonstration Initiative(s) should develop **cooperative business models** for the sustainable mobilisation and valorisation of primary and secondary bioresources resulting in the creation of new biobased products and economic and employment opportunities, while also **protecting and enhancing the environment and climate**

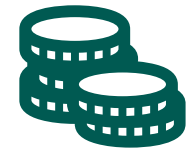


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# Specific requirements



Pillars	Scientific and technical priorities
Feedstock	Ensure the availability and quality of sustainable biobased feedstock
	Protect and enhance biodiversity and ecosystem services in biobased feedstock supply systems
	Demonstrate the sustainable supply of biobased feedstock
Processing	Develop innovative production systems in the biobased industry
	Improve the environmental performance of biobased processes
	Deploy innovative production technologies
Products	Develop innovative biobased products
	Scale-up production and market uptake of innovative biobased products
Communication	<ul style="list-style-type: none"><li>• Stimulate innovation actions in the Just Transition Fund Territory to build capacity for biobased systems</li><li>• Increase the awareness and capacity with all relevant stakeholders for industrial biobased systems</li><li>• Facilitate the development of expertise in biobased systems by improving higher education and skills development in the private sector</li></ul>
Finance	Improve the risk profile of biobased products through use of investment tools and approaches that mitigate the investment risk in biobased products
Sustainability	Incorporate environmental and climate sustainability and circularity assessment for biobased systems



# Key info: Who can apply?

## Proposals for collaborative actions can be co-led by

- Research Performing Organisations, Technological Universities and Universities
  - Small, Medium and Large Industries
  - Local Authorities
- 
- Proposals can be supported by the active funded involvement of local actors developing a competitive bio-based innovation and skills ecosystem including technological infrastructures (e.g., pilot lines, testing facilities, innovation hubs, open innovation testbeds, Key Enabling Technologies Centres, demonstration sites or living labs) and non-profit legal entities such as clusters, NGOs, local and regional authorities, Education and Training Boards, community, and local action groups.
  - Proposals can be supported by the active funded involvement and involve cooperation with bio-based industries including primary producers, and bioprocessing and biomanufacturing industries, biobased material/product off-takers and consumer brands.
  - Large industry partner(s) participation in projects is also welcomed on a self-financing basis. Their contribution can be through strategic participation or through the provision of cash, in-kind contributions, or additional activities including investments
  - Participation by all applicants is subject to respecting compliance with the [National IP Protocol](#).

**Please refer to the Call Specification**

**Document when published**

# BIOECONOMY DEMONSTRATION INITIATIVES TOPICS

## Call for Proposals

Agri-Bioeconomy Demonstration Initiative - Small scale biorefining in rural areas

Blue Bioeconomy Demonstration Initiative - Valorisation of aquatic biomass, waste and residues from aquaculture and fisheries processing





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*Type of Action: Innovation Action*

*Topic Budget: €TBC*

*end TRL: 6-7-8*

## **Agri-Bioeconomy Demonstration Initiative - Small scale biorefining in rural areas**

### **Challenge**

- *Based on scientific and technological developments and in response to the need to achieve climate neutrality and environmental, economic, and social sustainability for the land-agri-food sector, a new era of biobased industries including circular biobased business ecosystems are now emerging, focusing on unlocking the full potential of biomass, by cascading and serial optimised valorization of all the biomass components*

### **Scope**

- *Small-scale biorefineries are attractive, especially to rural stakeholders, because they may not require a high level of initial investment in comparison to large-scale facilities and, therefore, often provide a quicker return on investment. In addition, technology providers benefit from this model because of its high replication potential across the island of Ireland and Europe*

### **Expected outcomes**

- *Successful proposals will promote new economically viable and environmentally sustainable business models for a successful green and circular transition in primary production and rural areas based on biorefining.*



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*end TRL: 6-7-8*

## **Blue Bioeconomy Demonstration Initiative - Valorisation of aquatic biomass, waste and residues from aquaculture and fisheries processing**

### **Challenge**

- *The aquatic and marine worlds, fisheries and aquaculture industries are key players and nascent innovation hotspots, with increasing recognition for their potential to contribution to a strong, resource efficient and competitive bio-based innovation ecosystem. Investing to accelerate blue bioeconomy industry innovation and scaling has the potential to contribute significantly to food and nutritional security, mitigation of climate change and the UN SDGS and reduction in dependencies on fossil materials and mineral resources.*

### **Scope**

- *Demonstrating and deploying the efficient operation of a full value chain based on macro-algae and/or residuals and side streams from aquaculture, fisheries, and aquatic processing for valorisation into new bio-based products (food and feed ingredients, bio-based chemicals and materials), increasing the value of extracted fractions, while retaining and adding functionality and increasing the range of end applications including the development of an All-Island dimension.*

### **Expected outcomes**

- *Successful proposals will facilitate the deployment of industrial bio-based systems demonstrating improved environmental performances, maximum resource- and energy-efficiency, and optimal cascading use of bio-based feedstock, aiming for ‘zero waste’\* and ‘zero-pollution’\* operations.*



# ! KEY INFO: THE CALL PROCESS

1. Shared Island Fund launch - June 2023
2. Information event hosted by DAFM for all prospective applicants – September 14<sup>th</sup> 2023
3. Bioeconomy Demonstration Initiative Call 2023 official launch for submissions from eligible applicants – Q4 2023
4. Deadlines: Technical queries deadline – TBC
5. Assessment of proposals (see below) - TBC
6. Notification of outcome of selection process. Projects selected for funding move to contract negotiations.
7. Grant award and commencement of projects following successful contract negotiations.

## Assessment of proposals: 3 Steps

### Preliminary assessment by DAFM

Strict adherence to submission requirements as per Section 4 of Call Specification.

### Expert Evaluation Panel

Proposals categorised into thematic areas.  
Panel consists of relevant experts from overseas academia, industry and the public service.

### High-Level Review Panel

Assess list of recommended projects and makes final selection.

*Criteria for the Assessment of Proposals' will be provide in the Call Guidelines for Applicants*

# ➤ KEY INFO: MAKING AN APPLICATION

Closing date for  
submissions  
**TBC**

- Applications must be submitted using **DAFM's Online Research Application Form** on Flexi-Grant®: <https://dafm.flexigrant.com/>
- Grant applications will only be accepted from eligible applicants. Incomplete or late applications cannot be submitted.
- Applicants can update and save the proposal as many times as required before the submission deadline, but not after the deadline has expired. **Save your application regularly.**
- All submitted application forms **must be signed-off** online by the:
  - Project Coordinator (and Principal Investigator (PI) if separate).
  - For RPOs - Vice President of Research/Head of Research and the Transfer Technology Office (TTO) or equivalent within the lead RPO.
  - For other eligible applicants – Equivalent persons as above within their organisation.
- RPO Finance Offices are encouraged to join as collaborators. If doing so, they must log onto the application to review the finances before submission.

**Please refer to relevant sections in the *Call Specification* document, as well as the *Guidelines for Applicants* document.**



# KEY INFO: TIMELINE

- **Key dates (tentative)** for prospective applicants are as follows:

Dates (2023-2024)	Activity
Q3 2023	Online Survey and Networking Platform (Meeting Mojo)
Q4 2023*	Call 2023 open for submissions
Within two weeks of call opening	Information webinar for prospective applicants
Two weeks prior to the call closing	Deadline for technical queries
Mid Q1 2024*	Submission deadline
End of Q2 2024*	Results of Call
Q3 2024*	Commencement of projects

\*Times are indicative and may be subject to change  
Pre and post call opening in-person clinics are also to be arranged

# Questions and Answers





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## Shared Island Fund – Bioeconomy Demonstration Initiative Scheme

Thank you for your attendtion

2023