

Pathways to the Circular Economy Webinar Series

Financing the Circular Transition

February 3rd 2021



Comhairle Cathrach
Bhaile Átha Cliath
Dublin City Council



MODERATORS | Financing the Circular Transition



MARY CRONIN
Founder

UpThink Innovation Agency



DR CERA SLEVIN
Founder

Climate Matters Ltd



DR JOANNE ROURKE
Resource Efficiency Officer

Dublin City Council
Eastern Midlands Waste region

Agenda

- Welcome
- Filippo Giancarlo Martinelli – Irish Bioeconomy Foundation
- Tom Nolan – Whey2Life
- Dr Geraldine Brennan – Irish Manufacturing Research
- Dermot Hanley – Roundtable Partners
- Questions and Answers



#Pathways2CE #MODOS #CircularEconomy #Irishbioeconomy

@EMWR_IE @IrishBioeconomy @circuleire @IMR_ie

@UpthinkWorks

PRESENTERS | Financing the Circular Transition

16:00 – 17:00 pm



**FILIPPO GIANCARLO
MARTINELLI**

**IRSIH BIOECONOMY
FOUNDATION**



TOM NOLAN

WHEY2LIFE



**DR GERALDINE
BRENNAN**

**IRISH MANUFACTURING
RESEARCH**



DERMOT HANLEY

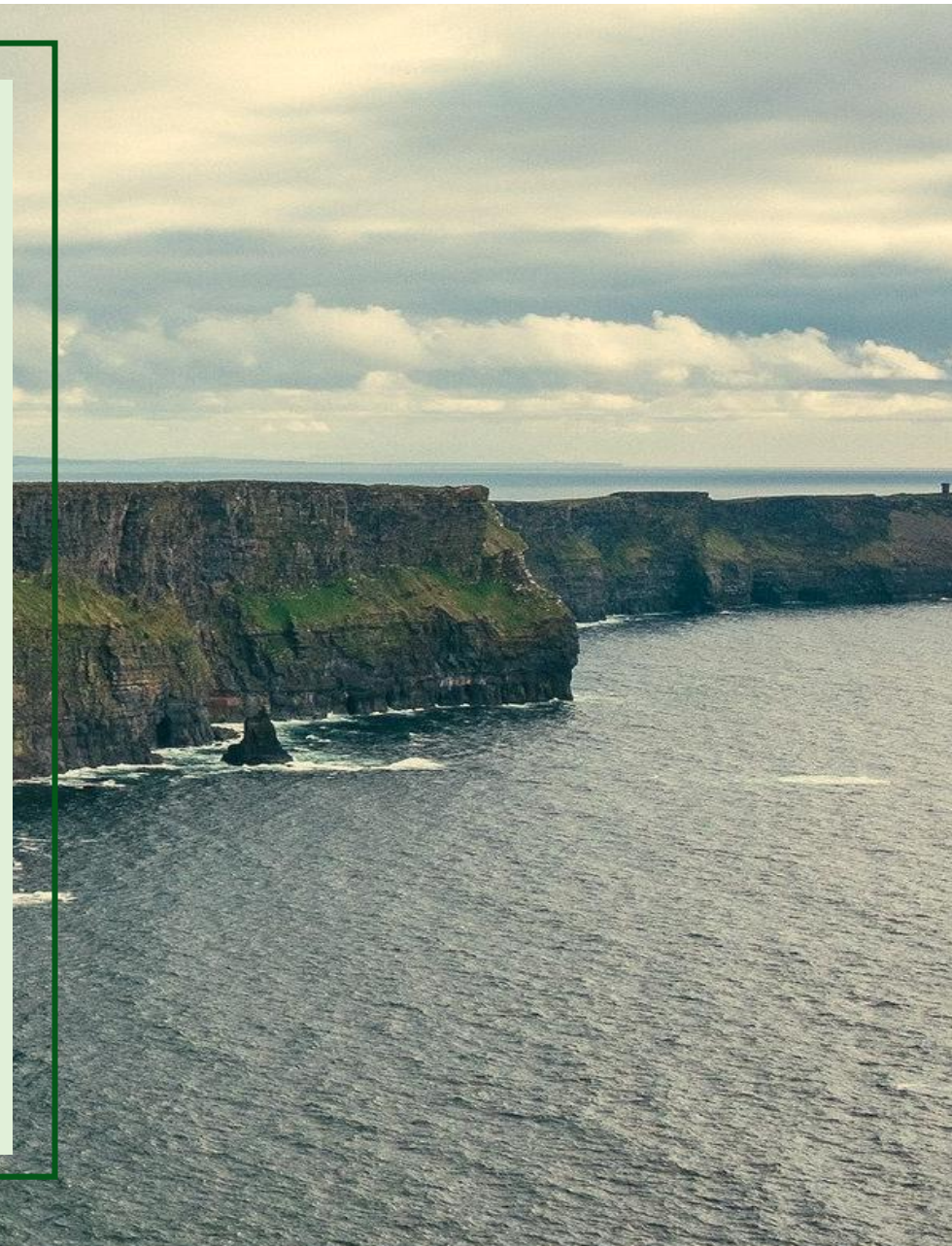
ROUNDTABLE PARTNERS



Irish Bioeconomy Foundation (IBF)

... Growing the Irish Bioeconomy Together...

How to Strategically Match your
Company Growth and EU
Funding Opportunities



IBF Presentation



The **Irish Bioeconomy Foundation (IBF)** is a not-for profit organisation funded and supported by Enterprise Ireland, the Irish Government, and Bio-Based Industry. We work closely with these partners and plan to grow our relationship with them through further public collaborations and projects.



**Growing the Irish
Bioeconomy
Together**

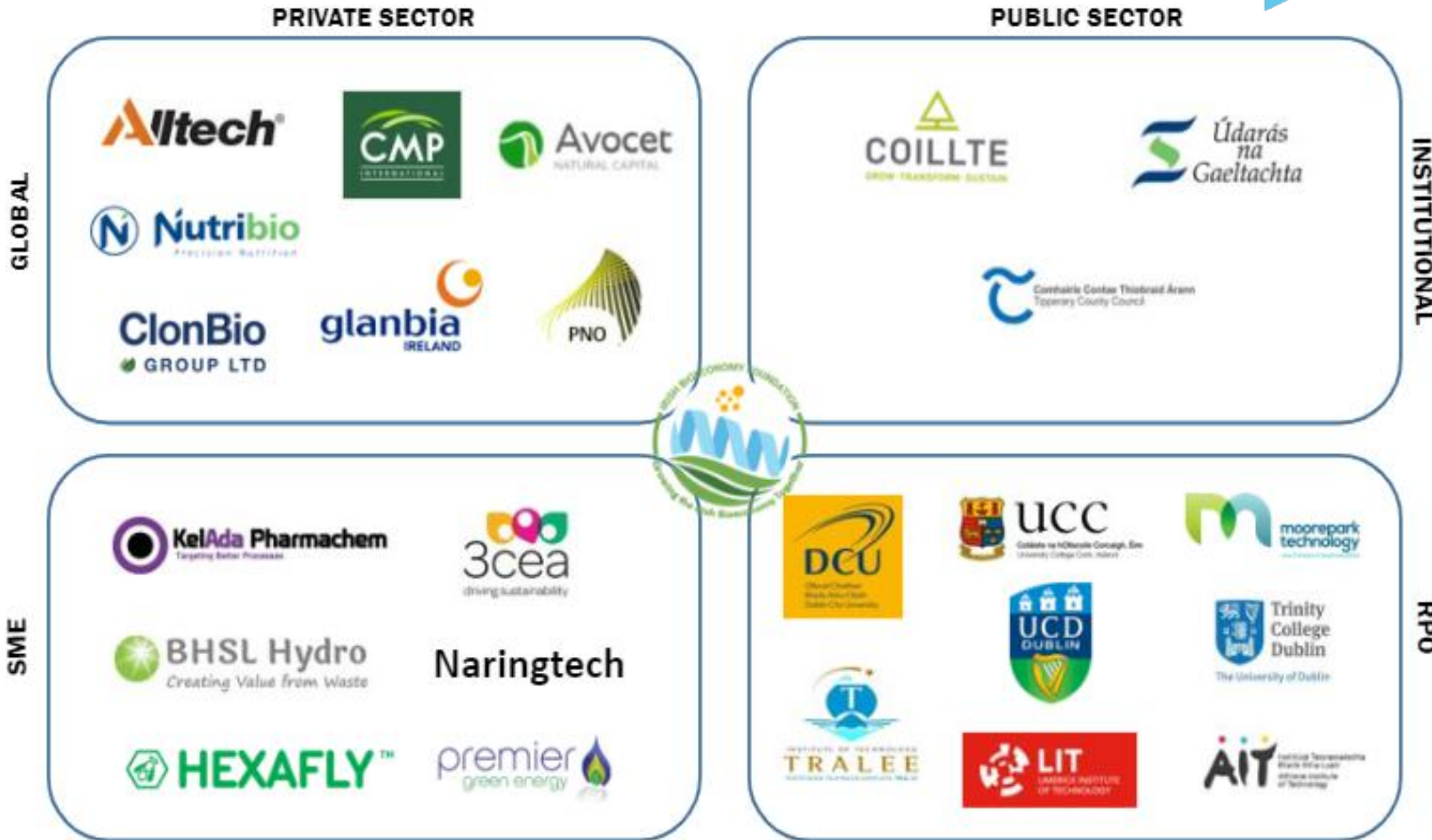


➤ **MISSION:** “To promote the conversion of Ireland’s natural land & sea resources to high value products for the development of a sustainable bioeconomy that is globally competitive.”



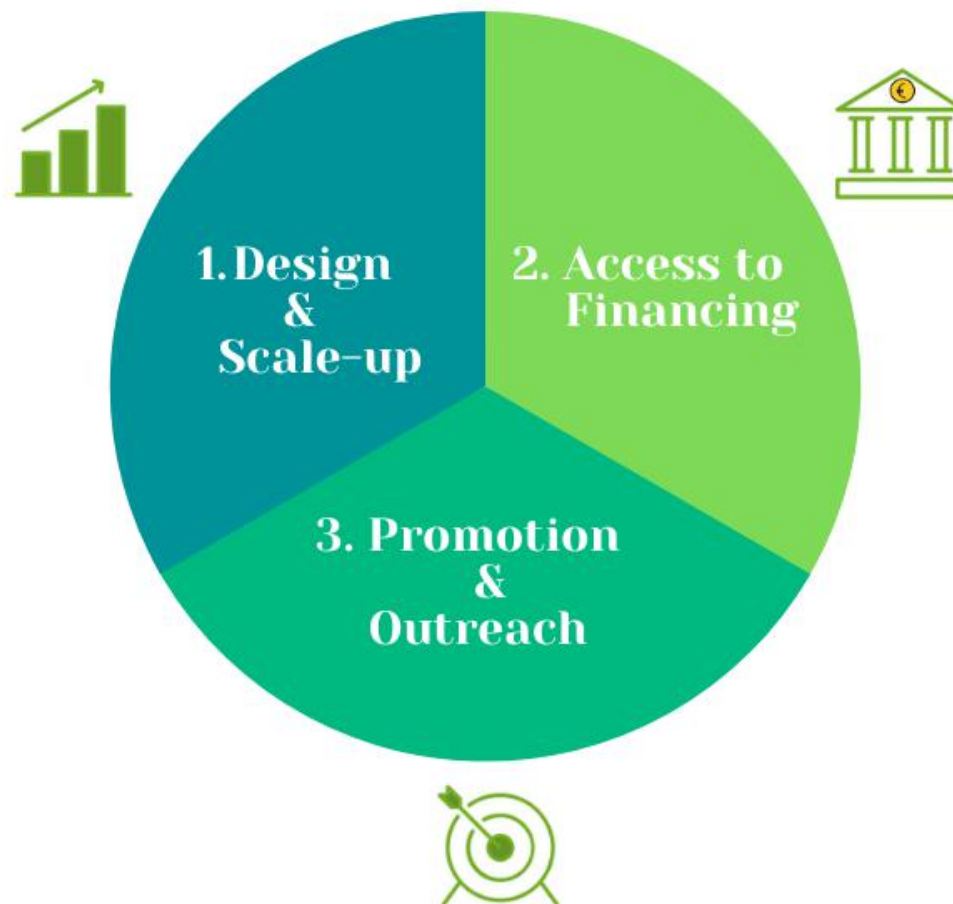
➤ **VISION:** building a new bioeconomy centre-of-gravity for agri-food, marine, forestry, energy and materials in the heart of Ireland.

Our Members



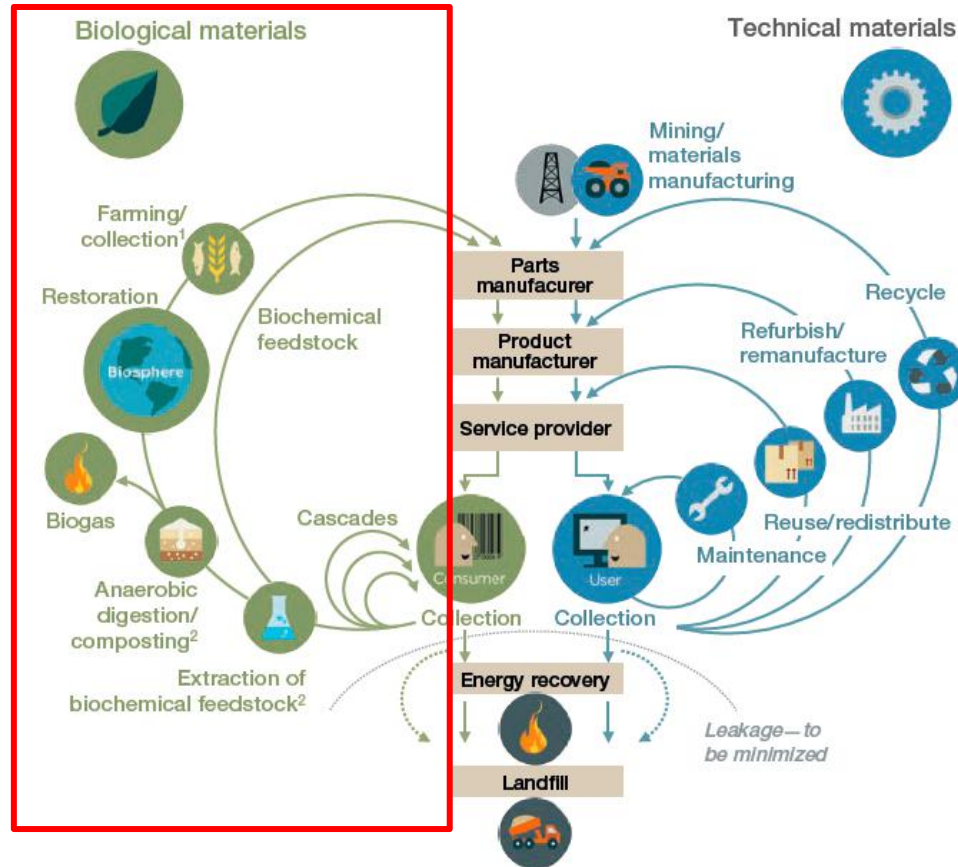
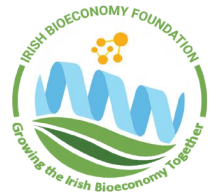
24 members

IBF Services



The circular economy

The circular economy - an industrial system that is restorative by design



¹ Hunting and fishing

² Can take both postharvest and postconsumer waste as an input

Source: Ellen MacArthur Foundation circular economy team drawing from Braungart & McDonough and Cradle to Cradle (C2C)

MPowerBIO



M-POWERing SME Clusters to help SMEs to overcome the valley of death

The MPowerBIO project will obtain feedback from clusters, SMEs and investors on the challenges they face regarding investments and build an online platform containing digital tools for evaluating investment readiness, as well as online training modules to build the capacity of clusters to train their SME members.

The project has received funding from the **Bio-Based Industries Joint Undertaking (BBI JU)** under the European Union's **Horizon 2020** research and innovation programme.

Who will be trained?

- 90 clusters
- 350 SMEs

10 regional events, helping the SMEs to prepare and present high-quality projects to investors



2020-2023

Bioeconomy Public Funding Opportunities

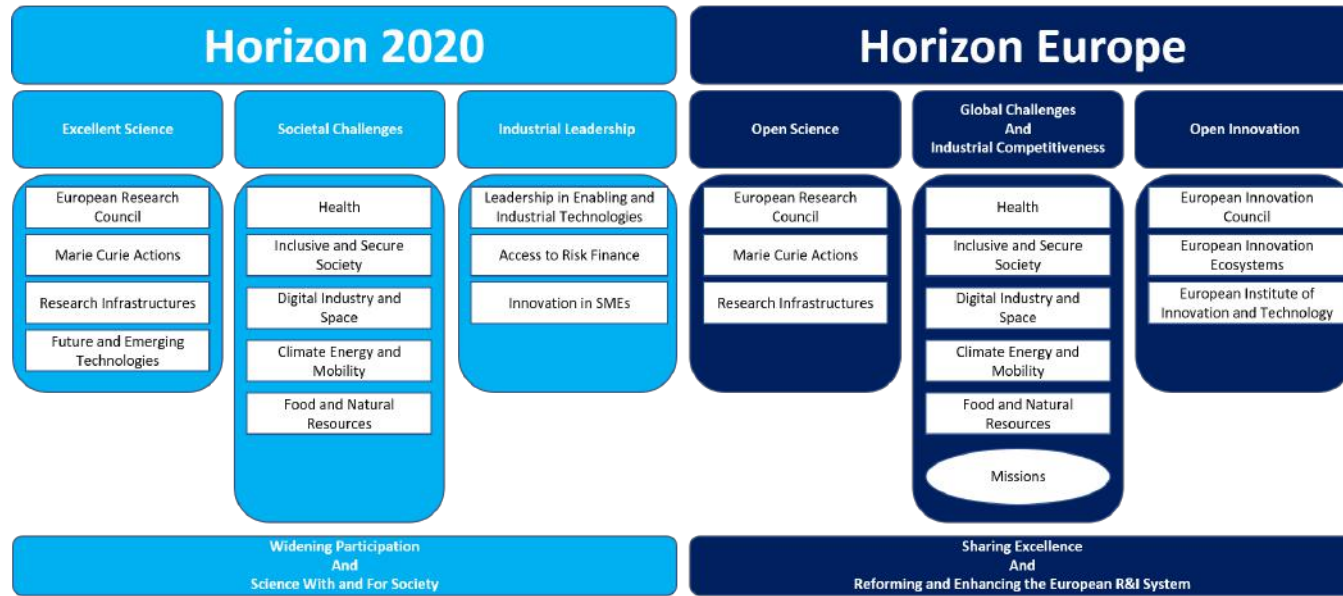
Horizon Europe (previously Horizon 2020)



- A €100bn research and innovation programme (2021-2027) to succeed Horizon 2020
- Largest multinational collaborative research and innovation investment in Europe

Programme Goals:

- Strengthen the EU's Scientific and technological bases
- Boost Europe's innovation capacity, competitiveness and jobs
- Deliver on citizen's priorities and sustain socio-economic models and values



Bioeconomy Public Funding Opportunities

LIFE Programme

- Created in 1992
- EU's financial instrument supporting nature conservation and climate action projects throughout the EU
- 2014-2020 Funding period had a budget of €3.4 billion

Sub-Programmes:

Environmental (75% of funding)

- Traditional projects
 - Nature and biodiversity
 - Environment and resource efficiency
- Integrated projects
- Preparatory projects
- Technical assistance projects

Climate Action (25% of funding)

- Traditional projects
 - Climate change mitigation
 - Climate change adaptation
 - Climate governance and information
- Integrated projects
- Preparatory projects
- Technical assistance projects

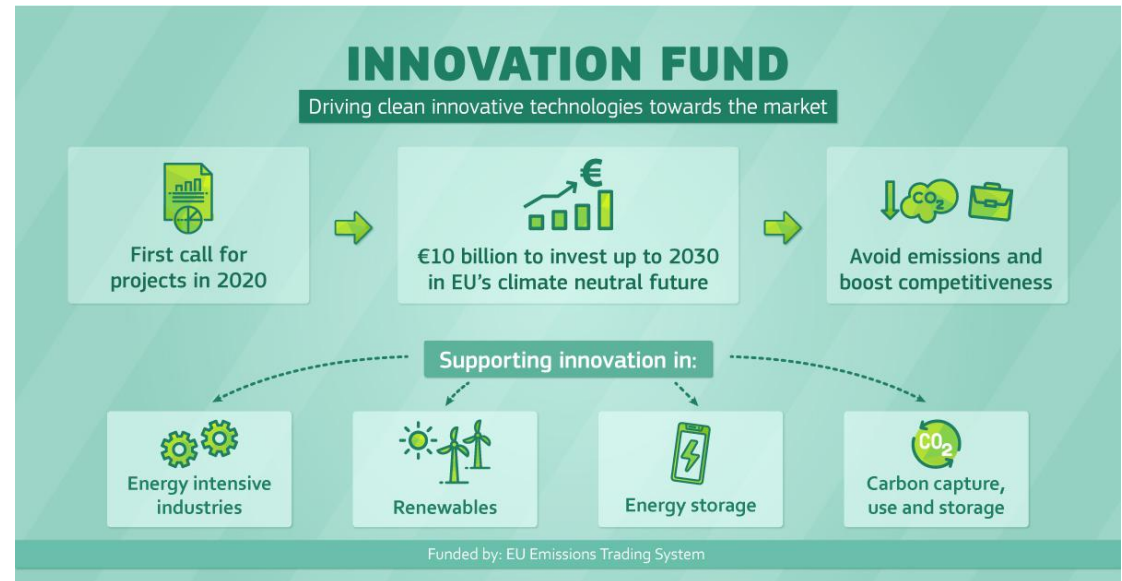


EU Innovation Fund

- One of the world's largest funding programmes for demonstration of innovative low-carbon technologies
- €10bn in support between 2020-2030

Goals:

- Help businesses to invest in clean energy and industry
- Boost economic growth
- Create local future-proof jobs
- Reinforce European technological leadership on a global scale



Bioeconomy Public Funding Opportunities



European Circular Bioeconomy Fund (ECBF)

- €100mn investment by the European Investment Bank (EIB)
- €250mn project fund to contribute to filling gaps faced by innovative Bioeconomy projects by providing access to financing in the form of debt, equity or quasi-equity
- For innovative circular bioeconomy companies and projects of various sizes

5 informational investment fields in focus:

1. Circular economy/business model
2. Enabling process technologies
3. Biomass production
4. Bio-based materials
5. Performance biologicals



What is the European Green Deal?

A set of policies set by the European Commission with the aim of making Europe the first climate neutral continent by 2050.

What is the “Just Transition Mechanism”?

- Created by the EU to provide financial support and technical assistance to help those regions, works and sectors which will be more affected by the move to the green economy in order to achieve climate neutrality in an effective and fair manner.
- In line with the Cohesion policy framework
- €100bn over the period of 2021-2027 mobilized through:
 1. Just Transition Fund (providing grants - National co-financing)
 2. Just Transition scheme by InvestEU (attracting priv. investments)
 3. Public loan facility by EIB (leveraging public finance)
- **Territorial just transition plans** will identify the most impacted territories that should be supported.

7 Magic Questions for Analysing Grant Opportunities

- ① **When is the deadline? Is it more than 3 months away?**
- ② **Who is the funding body, and how does their policy match with my technology/product/service?**
- ③ **Does this opportunity require a large consortium, or are solo applications okay?**
- ④ **How close to the market should my product be to match the TRL concept?**
- ⑤ **What is the funding rate? 50%, to 150%?**
- ⑥ **What costs are eligible? For eg: Full equipment or only depreciation, large overhead or small overhead?**
- ⑦ **How much time will I be spending on this? How much would it cost me should I be doing it alone or with support (cluster/consultant)**

Connect with us



info@bioeconomyfoundation.com



National Bioeconomy Campus (former Lisheen Mine)
Killoran, Lisheen (Moyne), Tipperary E41 R622, IE



00353-872737941



<http://bioeconomyfoundation.com/>



IBF BioMap URL: shorturl.at/KSTU0

INTRODUCTION TO:

Whey2LIFE

Tom Nolan – Director, NaringTech Limited

**DATE:
3 February 2021**



Background

- **Participants have been deeply involved in the green economy since the early 2000s:-**
 - **development of renewable energy projects – e.g. wind projects; and**
 - **waste management – including composting and the utilisation of organic wastes to produce renewable energy by way of AD**
- **Waste management business has been focussed on extracting as much value as possible from the organic materials processed by it**

Anaerobic
Digestion
(Portlaw)



Anaerobic
Digestion
(Youghal)

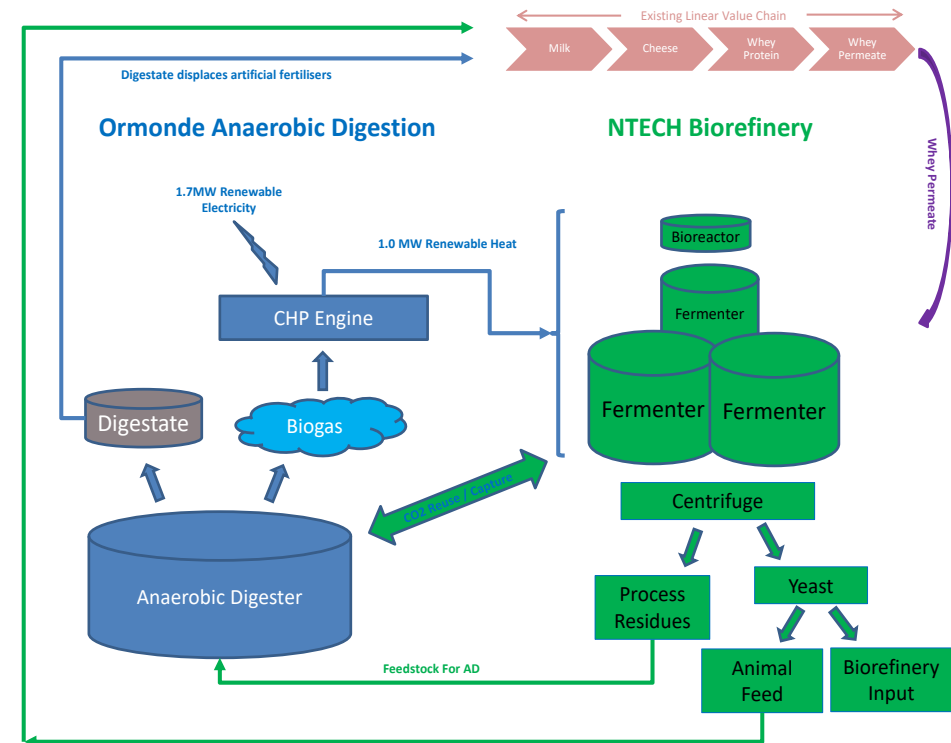


Composting
(Portlaw)



Whey2LIFE

- Following completion of the construction of an AD facility in Youghal in 2019 we started work on repurposing a separate contract drying facility located on that site
- Identified a possible opportunity to valorise whey permeate (or DLP / DLC) by using it as a substrate for the production of a non-GMO yeast protein for use in animal / fish feeds
- WP is a by-product of dairy processing where we felt we could extend the value chain by using it as a second generation carbon source
- Invested to validate the concept / potential
- Established that:-
 - an opportunity to valorise WP existed; and
 - synergistic benefits could be realised by integrating the proposed process (biorefinery) with the AD facility - (utilisation of surplus heat / waste streams)



Funding Landscape – Our Assessment

- New business lines, processes and products carry very significant risk
 - Physical infrastructure which will be required to deliver the circular economy is expensive and takes time to put in place
- } Different funding instruments are needed
- Angel / Venture funds / Seed funds / EIS - prior experience led us to conclude that we are not a fit for them at this time - quantum of investment required / risk profile of the project / timeline needed to deliver a return on investment
 - Debt - simply not available to us
 - Enterprise Ireland Supports / Instruments
 - We have utilised Innovation Vouchers and Innovation Partnership supports
 - HPSU - appropriate for early stage - but as it is capped at 500k it is very small relative to the investment requirements
 - Partnerships - an important route
 - EU programs - objectives and nature of program supports seemed to fit with what we were trying to do



EU LIFE PROGRAM

- **As we were new to this domain, we undertook a review of EU programs and instruments to see if there was a fit**
- **Brought on board experienced consultants to work with us**
- **Resource Efficiency stream of EU LIFE identified as a possible match**
- **First stage, light submission was succesful (April to September 2018)**
- **Second stage, detailed submission also successful (January 2019 to July 2019) – we are thankful for the support of third parties when making this submission**
- **Grant agreement in place (August 2019) – project commenced immeadiately thereafter**
- **This grant funding complements the significant investment being made by our shareholders in this project**



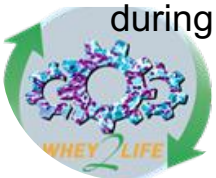
Challenges & Response

CHALLENGES

- **Validate the business case for shareholders given :-**
 - **Capital intensity** – physical infrastructure is expensive and takes time to put in place
 - **Significant “at risk” investment required from the outset** – multiple binary outcomes
- **Scaling** – can we get the process to work commercially at scale in an industrial setting
- **Substrate** – availability and suitability
- **Product** – how do we validate our product and its price point
- **Timelines** – long and uncertain lead times (in particular, during C-19)

RESPONSES

- **Stage and gate approach to managing risk**
- **Leverage existing capabilities and infrastructure**
- **Support from EU LIFE program has been a key enabler**
- **Risk / Reward sharing** - Enterprise Ireland / DCU – IPP
- **Built and operate our own pilot facility** – ownership and control over this facility was essential for scale trials - access and alterations
- **Feed trials complemented with internal and external evaluation of the product**
- **Stakeholder engagement & partnership formation**





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www.CIRCULEIRE.ie

Financing the Circular Economy

3rd Feb 2021 – [Pathways to a Circular Economy Webinar Series](#)

Dr Geraldine Brennan
Irish Manufacturing Research
geraldine.brennan@imr.ie

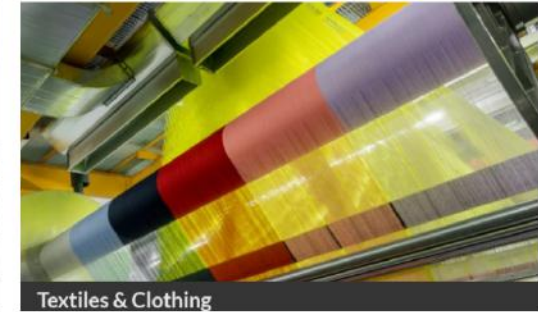
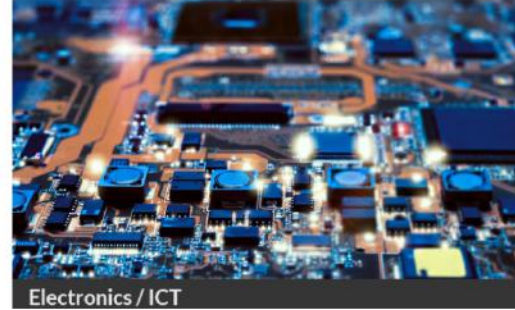


An Roinn Comhshaoil,
Aeráide agus Cumarsáide
Department of the Environment,
Climate and Communications



KEY SECTORS: Significant Opportunities

5% material improvement could yield €2.32bn p.a. for Irish economy ([Coakley et al., 2013](#))



Food & Beverages, Pharmaceuticals, Chemicals & non-metallic mineral products, Construction, Retail, Accommodation, and Food Services ([McCarthy et al., 2019](#))



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National Platform for Circular Manufacturing

Industry-led €4.5 million public-private partnership to accelerate the transition towards a net zero-carbon circular economy in Ireland (2020-2022)

Ireland's 1st circular economy innovation network addressing "circularity gap" and 1st designated EU circular hotspot



CIRCULÉIRE Funding Mechanisms

€1.5m Ring-Fenced Innovation Fund

- Co-creating solutions with industry members
- De-risking Irish Investments in Circularity

New Venture Programme – *next call opens June 2021*



Picture Credit: [Nikita Kachanovsky](#) #oLY5JqP_Ldw



Funding for Circular Innovation

More Info: <https://circuleire.ie/policy-and-funding/>

National – Grant + Equity



[Lean BCV](#), [Lean Start/Plus/Transform](#)
[Green Offer](#), [Innovation Voucher](#), [Innovation Partnership Feasibility](#), [Innovation Partnership](#)



An Roinn Gnó,
Fiontar agus Nuálaíochta
Department of Business,
Enterprise and Innovation

[Disruptive Technologies Innovation Fund](#)



[Green Enterprise: Innovation Fund for a Circular Economy](#)



[HALO Business Angel Network – Angel Investment](#)



An Roinn Comhshaoil,
Aeráide agus Cumarsáide
Department of the Environment,
Climate and Communications

EU – Grant + Equity

DESIGNING CIRCULAR PROSPERITY

C-VoUCHER combines design and technology to support SMEs on their way towards circular economy.

<https://c-voucher.com/>

DigiCirc thematic areas



Open call: November – January 2021



Open call: June – July 2021



Open call: December 2021 – January 2022

<https://digidirc.eu/>



<https://circularitycapital.com/>



The market for financing CE is taking off...

INTESA  SANPAOLO

“The number of equity funds investing in the circular economy grew from one in 2018 to eight by mid-2020, including funds by some of the largest global asset managers, including [BlackRock](#) and [Goldman Sachs](#)...

...Intesa Sanpaolo created a [€5 billion credit facility](#) dedicated to the circular economy....”



<https://wks.circuleire.ie/public/artefact/78669346-d6cb-49d3-a38f-17b61ac9c1e0>



Thank you!

Any questions?

circuleire@imr.ie | www.circuleire.ie

Rathcoole

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D24 WCO4

Mullingar

National
Science Park,
Dublin Road,
Mullingar
Co. Westmeath
N91 TX80



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ROUNDTABLE
PARTNERS



So that's obvious!



ROUNDTABLE

Why can't the industry respond?

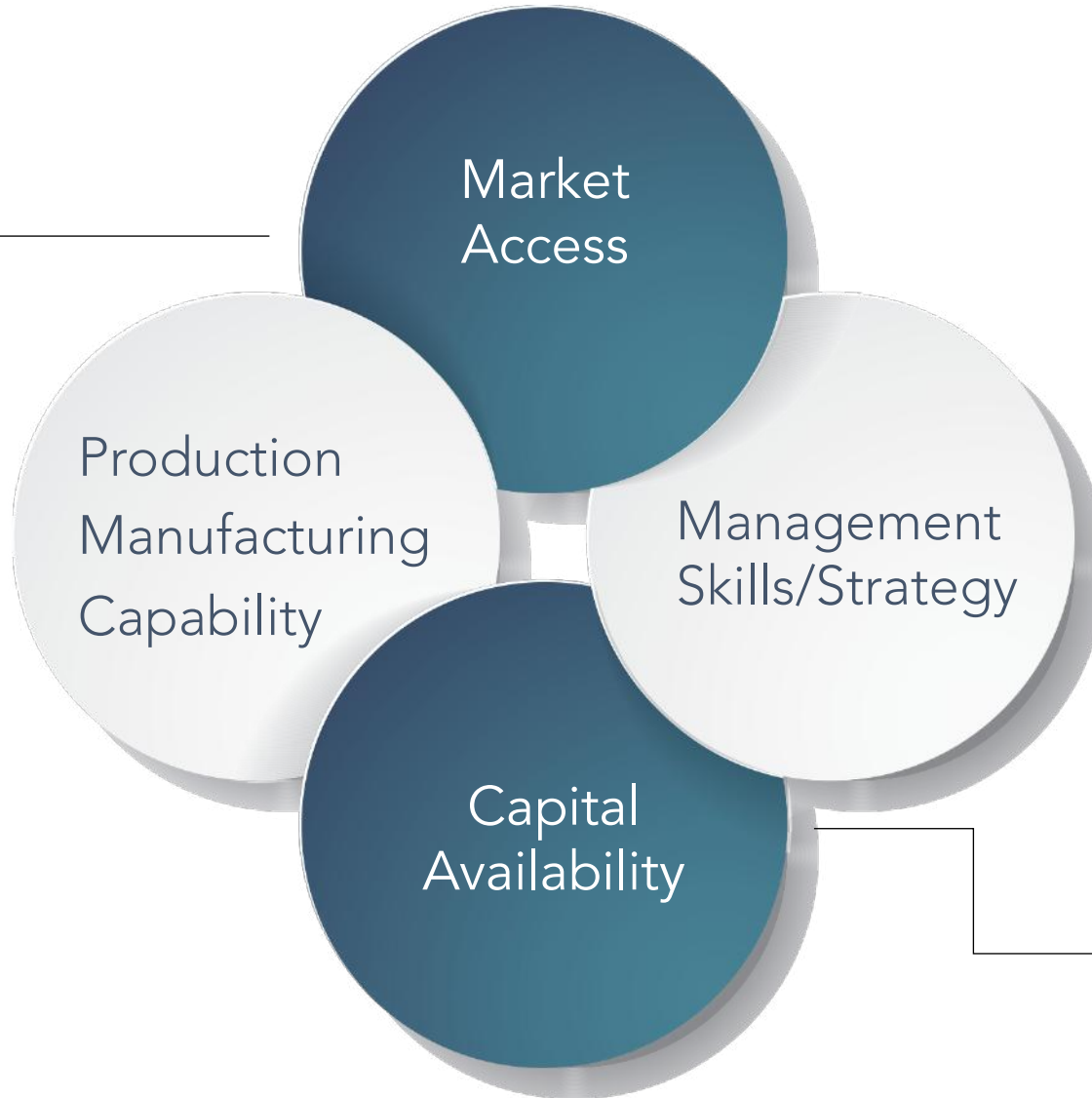
Small Medium	Contract/Outsource	Large FMCG	The Multiples
<ul style="list-style-type: none">○ Expertise○ Capital○ Resilience○ Marketing Expertise○ Relationships○ Cost position○ Distribution	<ul style="list-style-type: none">○ Marketing Expertise○ Bargaining Power○ Overseas Distribution○ Infrastructure○ Capital	<ul style="list-style-type: none">○ Consumer credibility○ Orientation/Scale○ Pricing○ Flexibility	<ul style="list-style-type: none">○ Onerous requirements/scale○ Volume driven○ Cash margin vs % margin○ Private label○ Model under Pressure○ Retail Footprint/Real Estate○ Shopper Behavior

CROSSING THE VALLEY OF DEATH



ROUNDTABLE

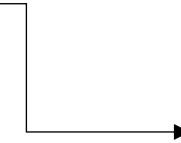
- B2B
- B2C
- Validation
- Customer Need



- Strategy
- Vision
- Execution
- Leadership

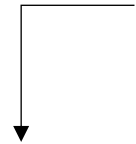


- State/Government
- Industry
- Private Capital
- Bank Finance



Capabilities

- Cost
- Quality
- Safety
- Consistency
- Scalability





ROUNDTABLE

Value creation opportunity – recent transactions



Acquired by Unilever for €130m



Acquired by Rogers Sugar for €109m
10.0x EBITDA



Acquired by Danone for €10.9bn
26.7x EBITDA



Acquired by Lotus Bakeries for €83m
40.7x EBITDA



Minority stake acquired by Mars, Incorporated



Acquired by General Mills for €93m
5.0x Revenue



Acquired by Tyson Foods for €3.8bn
17x EBITDA



Acquired by B&G Foods for €138m
9.0x EBITDA



Acquired by Kellogg Company for €512
85.7x EBITDA

Success Criteria



ROUNDTABLE

Integrity/Quality
of Product/Team

Strong Brand

Scalable/
Ambition

Targeted
Channel/
Market

Defensible
against
competition

Differentiated
not “Me Too”

High Margin

On-trend/
Satisfies need

Questions and next steps

Next Webinar

Re-Thinking Plastics

February 10th 2021 16:00 – 17:00 pm (GMT)

[Useful Resources link](#)

Contact: mary.cronin@upthink.works



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