European Mutual Learning Exercise

AgriChem Whey – A Joint Undertaking conceived in an Innovation Partnership

March 23\textsuperscript{rd}, 2018
Global Ambition
If you’ve got the ambition we’ll help you take it global.

- Enterprise Ireland helps companies start, innovate and scale internationally
- Work with 5,000 Irish owned businesses across all sectors of manufacturing and internationally traded services, approximately 200 of which are large companies
- Annual budget of €343M
- Offer leadership, competitiveness, innovation, networking and financial supports made to match ambition at every stage of company development
- Mandate to drive collaboration and commercialisation of state-funded research
- Mandate to drive Irish participation in H2020
- Innovation activities across all Irish industry (Micro SME, SME, Large Indigenous, Foreign MNC)
- 32 international offices; 10 offices throughout Ireland
- Responsibility for FDI in food
Strategy to 2020

Foster Innovation
Key to export success and scale

Drive Competitiveness
Key to winning market share

Diversify Markets
Expand Irish export footprint

Build Scale

Expand Reach
Innovation Impacts on Business

R&D Active Firms achieve more exports than non-R&D Active Firms.

RDI Grant impact on Company Sales

RDI Performing Companies

RDI Performing Companies with EI Collaboration Support
The Innovation Partnership Programme supports the company through co-funding the research group costs for an “Industrial Research” project.

A manufacturing or internationally traded services company with an operating base in the Republic of Ireland. The company must be a client of EI, IDA, LEO, Údarás.

The company has identified a commercial opportunity for an innovative product, process or service that it needs to develop and an Irish academic research group has the R&D capability to help the company.

The Innovation Partnership Programme supports the company through co-funding the research group costs for an “Industrial Research” project.
• The Innovation Partnerships Full proposal Form contains a template Intellectual Property ‘Heads of Agreement’ for discussion between the company and the research institute.
• Developed with Knowledge Transfer Ireland and compliant with IP Protocol
• The signed Heads of Agreement must be submitted to Enterprise Ireland as part of the project approval process.
Number of companies involved in approved Innovation Partnerships 2005-2017

Average 2005-2012
43 companies

Average 2013-2017
70 companies

63% increase
Innovation Partnerships Programme

- Applies to the broad publicly funded research system
- Evolution over time
- Programme evaluation cycle
- Impacts
- Good regional spread of companies and research performers
- Spillover benefits
2014 Innovation Partnership Project (€138 K from Enterprise Ireland) has led to:

€30m EU project integrated biorefinery for the conversion of dairy side streams to high value bio-based chemicals
Glanbia’s Innovation Partnership

• Glanbia is a major producer of lactose (derived from whey). A substantial by-product waste stream of lactose production is de-lactosed concentrate (DLC).

• DLC is an excellent potential source of the industrial chemical “lactic acid”, (both L and D lactic acid).

• The market opportunity for commercially viable L-Lactic and D-Lactic acid from DLC is compelling for the company.

• Both lactic acids are employed in the bio-degradable plastics and medical device industry.

• The project could result in new jobs and additional sales and will enhance Glanbia’s credentials as an innovative and sustainable food company.
Glanbia Ingredients is to coordinate a BBI-JTI project called AgriChemWhey

- This is a €30m project.
- With Partners in Ireland (5), Belgium (2), Germany and Austria.
- Partners representing the industry and the research system

AgriChemWhey will build a first-of-a-kind, industrial-scale biorefinery with integrated symbiotic industrial and agricultural value chains that will valorise more than 25,000 tonnes per annum of excess WP (Whey Permeate) and DLP (de-lactosed concentrate) to added value products.

- E.g. lactic acid, polylactic acid, minerals for human nutrition and bio-based fertilizers.

The plant will investigate the techno-economic viability of the innovative technology.

AgriChemWhey will also develop a blueprint of an economic sustainability concept and replication plans for other regions across Europe, aligning with sustainability targets.
• On the site of the former Lisheen mines
• Lisheen mine began operations in 1999 and employed up to 400 people at full production.
• Makes final shipment in January 2016
• Irish Bioeconomy foundation including Tipperary local authority and the mine owners
Lisheen - National Bioeconomy Campus
Funding gained to turn former mine into Irish bio-economy innovation and piloting facility

- €4.6 million to support the Irish Bioeconomy Foundation to develop a new bioeconomy innovation and piloting facility at Lisheen, Co. Tipperary has been announced by Heather Humphreys TD, Minister for Business, Enterprise and Innovation.

- The facility will aim to enable industry, entrepreneurs and researchers to scale technologies that convert Ireland’s natural resources to products of high value for use in a wide variety of sectors.

- This is one of 21 regional projects to receive funding through the first round of Enterprise Ireland’s new €60 million competitive Regional Enterprise Development Fund.
Thank You