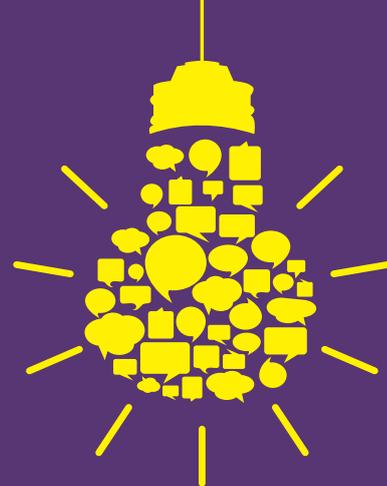


# ECO-FCE

Agri-Food and Biosciences Institute (AFBI),  
Queen's University Belfast (QUB), Devenish  
Nutrition Ltd, Teagasc and Hermitage  
Genetics collaboration in FP7



## Introduction

ECO-FCE is an EU FP7 project funded under the Knowledge-Based Bio-Economy (KBBE) stream to investigate a whole-systems approach to optimising feed efficiency while reducing the ecological footprint of monogastrics in pigs and poultry. ECO-FCE's ultimate goal is to provide these industries across the EU with strategies and tools to accomplish the task of feeding a growing world population in an efficient and ecologically-friendly manner.

In this case study Elizabeth Magowan, a research scientist at the Agri-Food and Biosciences Institute, (AFBI) shares her experience of working on an FP7 project and describes how EU funding can help the development of new skills and knowledge transfer between all participants.

### About the project

[www.eco-fce.eu](http://www.eco-fce.eu)

The overall aim of the four year project is to investigate the link between animal feed, gut microbiota and genetics and how these factors affect the ability of pigs and poultry to convert feed to lean meat and also how they impact on environmental emissions.

Upon completion, the project will provide new knowledge and strategies for the pig and poultry industries to reduce their environmental impact whilst optimising resource usage. ECO-FCE will also provide additional understanding in the area of animal genomics and there is potential for the SMEs involved in the consortium to explore the development and commercialisation of enhanced feed additives to target healthy gut microbiota to the benefit of animals and farmers in relation to feed use efficiency and profitability.

The consortium comprises 17 partners, five of which are on the island of Ireland, three in the North and two in the South.

**Acronym** ECO-FCE

**Start** Feb 2013

**End** Ongoing

**EU Grant Aid** €6million

#### Project partners

Agri-Food and Biosciences Institute, Hillsborough, Co Down

Queen's University, Belfast  
Devenish Nutrition Ltd, Belfast

Teagasc (Agriculture & Food Development Authority), Ireland

Hermitage Genetics, Ireland  
RTD Services, Austria

Delacon, Austria

University of Veterinary Medicine, Austria

IRTA (Institute for Food & Agricultural Research & Technology), Catalonia, Spain

#### ECO-FCE Spokesperson

Elizabeth Magowan, deputy co-ordinator for the ECO-FCE project

ITPSA, Spain

University of Technology & Life Sciences, Poland

Poznan University of Life Sciences, Poland

Institute of Biochemistry & Biophysics, Poland

Agroscope, Switzerland

Aarhus University, Denmark

Leibniz Institute for Farm Animal Biology, Germany

Cobb-Vantress, UK/US





## Why engage in collaborative EU R&D and innovation projects?

Elizabeth Magowan explains:

*“When a bid to become a partner in an alternative consortium did not come to fruition, I contacted Dr. Peadar Lawlor, the principal research officer in the Pig Development Unit of Moorepark, which is Teagasc’s Animal & Grassland Research and Innovation Centre, based in Co Cork, with whom I already had a close working relationship.*

**“European projects really do allow cutting-edge, industry-changing research to take place.”**

*“We discussed potential project ideas and funding streams and realised that through our contacts we could put together a very strong EU consortium to take ECO-FCE forward ourselves.*

*“We had expert knowledge on the island in many of the elements of the project, particularly in relation to the microbiota and feed-use efficiency as well as animal welfare but we were lacking in certain skills that were integral to the project’s success which were not available in the North or South, hence the appeal of a European-wide project.*

*“Through this project we are able to integrate knowledge from new fields into overarching research that will benefit every partner.*

*“Although AFBI had been involved in European projects this was my first foray into this arena and I am keen to become involved in others in the future! The whole experience has seen my contact list explode, opening up many new opportunities for the Institute. These projects really do allow cutting-edge, industry-changing research to take place that could alter the status quo. Innovation is the key to success and European funding*

*allows this to happen on a major scale.*

## Project progress

*“We have had some unexpected results in terms of how divergent feed use efficiency can be between animal siblings. Whilst we knew there would be a large degree, it was much broader than we expected and now we wonder if it could be even wider in non-siblings.*

*“We envisage that through meta-analysis, we will produce a major database tool that will help to answer questions on the various elements affecting feed use efficiency.*

*“From a product perspective, the commercial opportunities for the SME partners are in the areas addressing gut microbiota, perhaps through additives mixed into feed. There should also be new-found genetic biomarker knowledge which breeding companies can adopt to improve selection for good feed use efficiency.”*

## Is it beneficial to have cross-border partners in the consortium?

*“Having 17 partners across eight countries allows for a vibrant melting pot of languages, skills, knowledge, cultures and progressive ideas, which are constantly bubbling away.*

*“Having the strategic coordinator, Queen’s University Belfast, and Devenish Nutrition based in the North as well as two partners, Teagasc and Hermitage Genetics in the South means that we have five strong entities collaborating on the wider European project but based on the same island.*

*“This is immensely beneficial as things can get done much more quickly. We all have the same working culture and even the diet and genetic make-up of pigs and poultry across the North and South are very similar so trials can complement each other easily.*

*This enables the North and South of Ireland to attain even more information in a more conclusive manner.*

*“Involvement in ECO-FCE has also helped to sustain AFBI, exposing our Institute to a wider European audience, showcasing the knowledge and cutting-edge work that we do, which could lead to future opportunities.”*

## How can InterTradeIreland help?

InterTradeIreland is helping companies and researchers from Northern Ireland and Ireland to collaborate in Horizon 2020.

Elizabeth adds: *“When considering taking part in European projects, perhaps as part of the current Horizon 2020 funding stream, it is reassuring to know that there are organisations such as InterTradeIreland as well as our National Contact points (NCPs) and Northern Ireland Contact Points (NICPs), who can offer support and guidance to those new to the complexity of EU funding opportunities.*

**Elizabeth’s advice to those thinking of participating in European projects “The collective needs to be harmonious and certainly opting for a partner who already has a proven track record in Europe is a bonus.”**

*“They have a great overview of what is going on across the island; both in terms of industry and academia, and can therefore facilitate the mechanics of collaboration, in terms of building a successful consortium.*

*“Choosing the right partners is essential as is a strong vision and if you are putting together the team you need to make sure that you choose the best partner. There is no room for partners just for the sake of having them - it is a hard thing to do but I have learnt to say no and this is a vital skill when it comes to major projects.”*

## AFBI

The Agri-Food and Biosciences Institute (AFBI) is a leading provider of scientific research and services to government, non-governmental and commercial organisations. With its unique breadth of facilities and scientific capability in agriculture, animal health, food, environment, biosciences and economics, AFBI conducts a wide range of valuable projects for both the public and private sectors.