

Stepping on the gas

Ten new transnational research projects on monitoring and mitigation of greenhouse gases from agriculture and forestry were launched recently as part of the **TEAGASC**-led **FACCE ERA-GAS ERA-NET Cofund**.



The agricultural sector in Europe faces significant challenges in curbing greenhouse gas (GHG) emissions while maintaining food security and sustainability in a changing climate. Projected increases in the world's population and a shift in emerging countries towards higher consumption of resource-intensive food items will put unprecedented pressure on global agriculture. To meet this demand, agriculture will have to produce almost 50% more food, feed and biofuel in 2050 than it did in 2012, according to the Food and Agriculture Organisation (FAO) of the United Nations. This will require the development of innovative farming and forestry systems that ensure sustainability while increasing productivity.

Our aim is to strengthen the transnational co-ordination of research programmes in Europe and provide added value to research and innovation on GHG monitoring and mitigation.

A transnational approach for a global problem

Developing the knowledge and technologies to tackle these global societal challenges will require a co-ordinated international approach. In particular, innovative GHG mitigation and monitoring solutions that extend beyond the local context are needed. While the EU Framework

Programme for Research and Innovation, Horizon 2020, is an important source of research funding in the EU, most funding is still controlled nationally. An ERA-NET Cofund is a funding mechanism whereby national money is pooled to fund transnational projects. Cofunding is also provided by the European Commission through Horizon 2020. FACCE ERA-GAS is the ERA-NET Cofund for Monitoring and Mitigation of Greenhouse Gases from Agri- and Silvi-culture. The FACCE ERA-GAS consortium comprises funding agencies and project partners from 19 organisations across 13 European countries. Teagasc is the overall co-ordinator of the ERA-NET, which is only the second time that an Irish organisation has led this type of project.

Our aim is to strengthen the transnational co-ordination of research programmes in Europe and provide added value to research and innovation on GHG monitoring and mitigation. Through this enhanced co-operation and better alignment of national research priorities, FACCE ERA-GAS activities will have the scale and scope necessary to maximise the impact of GHG research activities in Europe (Figure 1).

2016 joint call for proposals

In March 2016, the FACCE ERA-GAS consortium pooled resources to launch the 2016 call for transnational research projects, co-funded by the European Commission. New Zealand, represented by its Ministry for Primary Industries, also contributed to the call. The total call budget was €14.1m. Each project consortium had to include partners from at least three different European countries participating in the call. Proposals were subjected to a two-stage evaluation process by an international evaluation committee, which was managed by the Research and Codex Division of the Irish Department of Agriculture, Food and the Marine (DAFM). Ten projects were finally selected for funding, involving 71 project partners from 39 different research institutions and companies



Project round tables during the first FACCE ERA-GAS Research Programme Meeting allowed for networking and showcasing of the new projects.

across 13 European countries, New Zealand and the US. Over the next three years, these projects will conduct collaborative research to develop improved GHG mitigation solutions, reporting mechanisms and policy instruments for the agriculture and forestry sectors.

Official launch

On October 10, 2017, the 10 new projects were officially launched as part of the first FACCE ERA-GAS Research Programme Meeting in Wageningen University & Research, the Netherlands. The two-day event showcased the new projects and provided opportunities for networking between scientists, research funders and stakeholders. Speaking at the meeting, Dr Frank O'Mara, Teagasc Director of Research, highlighted the urgent need for international co-operation to tackle the global challenge posed by climate change and food security: "Efforts are required to increase the GHG efficiency of food, feed and fuel, enhance carbon sinks and refine national inventories. By conducting research in integrated,

transnational partnerships, FACCE ERA-GAS projects will be able to develop and implement joint solutions that achieve these objectives". Future events and activities are planned over the lifetime of FACCE ERA-GAS to showcase project results, engage with stakeholders and policymakers, and co-ordinate efforts with global GHG networks. This will ensure that the new knowledge generated is shared and implemented for wider societal benefit.

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For more information on FACCE-JPI: <https://www.facejpi.com/>.

Authors

Órlaith Ní Choncubhair

Research Officer, Research Support Office, Teagasc Head Office, Oak Park, Carlow

Correspondence: orlaith.nichoncubhair@teagasc.ie

Frank O'Mara

Director of Research, Teagasc Head Office, Oak Park, Carlow

Raymond Kelly

Head of Research Support, Teagasc Head Office, Oak Park, Carlow



FIGURE 1: Through enhanced co-operation and better alignment of research efforts, FACCE ERA-GAS aims to address the issue of climate change more effectively.

