

ON AGRICULTURAL GREENHOUSE GASES

GRA Joint Programming



- GRA Council adopted its first Strategic Plan, which included in its priority actions:
 - to undertake GRA **joint programming** on an annual basis, beginning no later than August 2017, to support collaborative research, including GRA Flagships.
- GRA Council formed a working group to advance the development of joint programming to identify suite of different mechanisms that could be utilised by GRA to align and mobilise resources.
- Intention is to have more deliberate and well planned coordination within the GRA and between the GRA and its partners.
- Specific outputs/activities <u>identified by Flagship Task Forces</u> and <u>GRA Research Groups</u> that require resourcing will be used as the basis for calls, Fellowships, and other mechanisms to be developed through GRA joint programming.



- Working group prepared a working paper to outline a series of possible GRA 'joint programing' mechanisms that could be adopted by the GRA members for resourcing and coordinating collaborative research and capability building.
- Mechanisms identified include:
 - GRA Fellowship Fund (priority topics, research fellows)
 - Bilateral funding arrangements (topics aligned with GRA priorities)
 - GRA Thematic Annual Programing (alignment of existing programmes, sharing data)
 - Multi-partner research call (common topics, coordinated timing, intra-national funding)
 - Fund for International consortia (common topic, coordinated timing, inter-national funding)
- GRA Council Members were consulted on the above mechanisms and feedback sought on their interest in being involved.



GRA Fellowship Fund (priority topics, research fellows)

- ✓ Limited scope for funding but possibility of hosting fellows in national institutions across GRA network. Specific interest in soil carbon, inventories and livestock methane.
- √ Maybe possibility of mobility funding to support TAP approach (see below).
- Bilateral funding arrangements (topics aligned with GRA priorities)
 - ✓ Number of members noted the existence of bilateral cooperation that was relevant to the GRA.
- GRA Thematic Annual Programing (alignment of existing programmes, sharing data)
 - ✓ Soil carbon emerged as topic of most interest, could be supported by regional mechanism, e.g. Fontagro, and fellowships.
 - √ GHG inventory interest in sharing experience on (moving to higher tiers, developing improved emissions factors for regions with limited or no measurement data, guidance on incorporation of mitigation practices/technologies).
 - √ Rice already plans for work in Asia and Americas.

Council feedback on joint programming



- > Multi-partner research call (common topics, coordinated timing, intra-national funding)
 - √ GHG Nexus proposal (to be presented next).
- Fund for International consortia (common topic, coordinated timing, inter-national funding)
 - √ Global Partnerships for Livestock Emissions Research.
 - ✓ Soil carbon how to develop international research consortia building on CIRCASA, what role European Joint Programming on Soil, other regions?



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GRA Joint Programming - GHG Nexus



- GRA invited to present opportunities for collaboration to FACCE-JPI Governing Board on 2 June, 2017.
- Basic analysis of GRA Flagships and relevant EU research activities showed considerable opportunity for alignment.
- Two initiatives emerged as excellent candidates for linking with GRA Flagships:
 - ERA-GAS
 - SusAn



ERA-GAS is the ERA-NET Cofund for monitoring & mitigation of greenhouse gases from agri- and silvi-culture

- The FACCE ERA-GAS Consortium consists of 19 partner organisations, from 13 countries.
- The consortium is coordinated by Teagasc, Ireland.

SusAn is the ERA-NET Cofund on Sustainable Animal Production

- The ERA-Net SusAn consortium is made up of 37 partner organisations from 22 countries.
- The consortium is coordinated by the German Federal Office for Agriculture and Food (BLE).

ERA-GAS

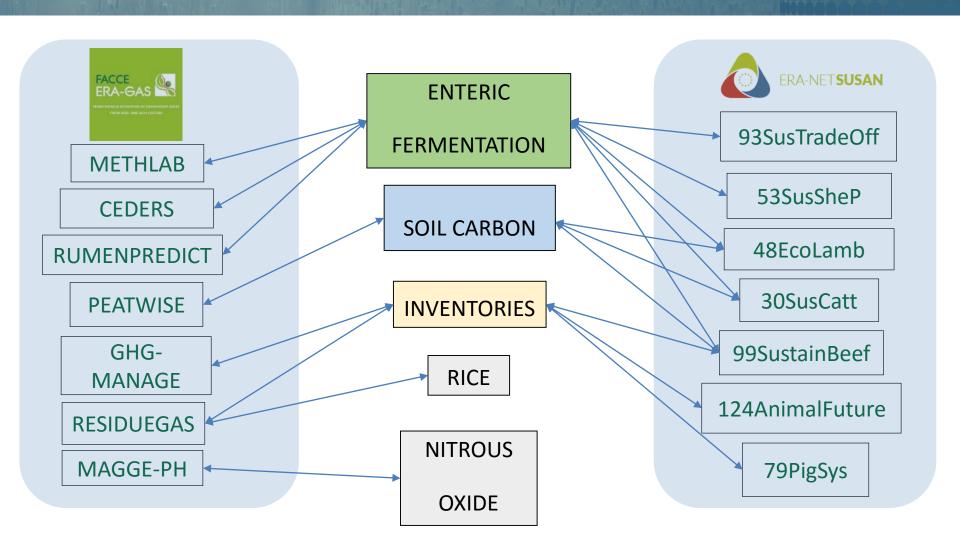
Following peer review by international experts, the FACCE ERA-GAS Consortium has selected 10 projects to receive funding in the frame of the FACCE ERA-GAS Cofund. Of these 10, 7 FACCE ERA-GAS projects have direct relevance to the GRA Flagships (see figure 1).

SusAn

Following peer review by international experts, the ERA-Net SusAn Consortium has selected 14 projects to receive funding in the context of the ERA-Net SusAn Cofund. Of these 14, 7 have direct relevance to the GRA Flagships (see figure 1).

Figure 1: Mapping ERAGAS and SusAn to GRA Flagship research topics





- METHLAB Refining direct fed microbials and silage inoculants for reduction of methane emissions from ruminants.
- CEDERS Capturing Effects of Diet on Emissions from Ruminant Systems.
- PEATWISE Wise use of drained peatlands in a bio-based economy; development of improved assessment practices and sustainable techniques for mitigation of GHGs.
- MAGGE-PH Mitigation of Agricultural Greenhouse Gas Emission by improved pH management of soils.
- RUMENPREDICT Predicting appropriate GHG mitigation strategies based on modelling variables that contribute to ruminant environmental impact.
- GHG-MANAGE Managing and Reporting of Greenhouse Gas Emissions and Carbon Sequestration in Different Landscape Mosaics.
- RESIDUEGAS Improved estimation and mitigation of nitrous oxide emissions and soil carbon storage from crop residues.

- 30SusCatt Increasing productivity, resource efficiency and product quality to increase the economic competitiveness of forage and grazing based cattle production systems.
- 48EcoLamb Holistic Production to Reduce the Ecological Footprint of Meat.
- 53SusSheP Sustainable Sheep Production advancing animal performance (breeding, feeding, health.
- 79PigSys Improving pig system performance through a whole system approach.
- 93SusTradeOff Understanding trade-offs between health and efficiency to improve competitiveness and sustainability of animal production by breeding and management.
- 99SustainBeef Co-definition and evaluation of sustainable beef farming systems based on resources non edible by humans.
- 124AnimalFuture Steering animal production systems towards sustainable futures.

- The opportunity exists to link these projects to the GRA Flagships and/or research activities, by inviting GRA members' to participate as additional project partners in order to extend the outputs and impacts of the project.
- Any additional activities undertaken as part of a project enlargement will be funded/resourced separately from the existing arrangements in place between the FACCE ERA-GAS / ERA-Net SusAn project partners and consortium members.
- Enlargement could be any/all of the following:
 - Expanding geographic coverage more data from different regions
 - Expanding system coverage e.g. rice residues as part of more general crop residue project, or additional animal species
 - Expanding research focus, e.g. other feed additives beyond antimicrobials

- 1. Seek interest from GRA Members in participating in GHG Nexus initiative.
- 2. Identification of interested GRA Members' institutions and associated resource contributions of by late September 2017.
- 3. Design of additional activities to form part of GHG Nexus by December 2017, through:
 - a) Opportunity for discussions between ERA-GAS project coordinators and interested researchers/representatives from GRA countries at the 1st ERA-GAS Research Programme Meeting (10th – 11th October, Wageningen, Netherlands).
 - b) Opportunities for discussions between SusAn project coordinators and interested researchers/representatives from GRA countries at the 1st SusAn Research Programme Meeting (November. Bilbao, Spain).
 - c) Electronic communications.
- 4. Review and approval of additional activities.
- 5. Final decision by GRA Members and their institutions on activities to be advanced as part of GHG Nexus start of 2018.

Some other examples of "joint programming" opportunities

- GHG Nexus (FACCE-JPI ERAGAS, ERANET SusAn, GRA)
- FONTAGRO project on rice (Chile, Peru, Colombia, CIAT, FLAR)
- MIRSA II Japan, Asia
- APEC Japan, NZ, Mexico, Viet Nam, Thailand, Malaysia, Philippines
- CCAC/FAO/NZ livestock FAO, NZ, 13 recipient countries in Asia, Africa and Latin America, now phase II with World Bank, etc.
- N₂O Asia Pacific Regional Network for GHGs Australia + 100 partners
- Landscapes China, Kenya, CIAT, ILRI, others.
- CIRCASA led by France + 17 countries
- GRA-CCAFS Scholarships NZ funded, but opportunities for others and for hosting (~40 PhD research visits linked to GRA and CCAFS research projects)
- CCAC Manure Management proposal GRA MMN
- Ibero-american INIAs meeting in October 2017 opportunity to plan joint work?
- AfricaRice GRA Workshop September 2017 opportunity to plan GRA activities in subregions of Africa.
- Other....?

