International co-operation in food and agricultural sustainability research: the NZ experience so far (II)

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OECD CRP on biological resources in agriculture

• Research Fellowships and Conference Sponsorships

• New Zealand involvement (2010-2016):
  • Fellowships (10 in each direction):
    • Host countries: Australia (2), Canada, Chile (3), France, Netherlands, USA (2); 10/16 NZ applicants successful; 6-22 weeks
    • Hosted countries: Canada, Denmark, France, Italy (2), Netherlands, Spain, USA (3); 12-22 weeks
    • Wide range of topics, e.g.: dairy production, crop production, invasive species control, weed control, fisheries management, forestry management, land conservation
  • Conferences: 1 hosted, 4 co-organised, 25 speakers
    • Wide range of topics: wetland ecosystem services in agricultural landscapes (hosted); policy integration for sustainable agriculture, science into policy, feeding more than 9 billion by 2050, genomics for improved fisheries management and conservation (co-organised)
International Sustainable Temperate Agriculture (TempAg) Network

• Established in 2015 with support from the OECD Global Science Forum
•Mission: to facilitate collaboration of national agriculture research in temperate climates
• Jointly coordinated by the UK (Global Food Security programme) and France (INRA)
• Current members: BE, CH, DE, FR, GB, NL, NZ, NO, SE
• Three pilot activities started:
  • Conceptual frameworks for defining agricultural sustainability at multiple levels, led by NZ
  • Designing land use systems that optimise synergies between agricultural production and ecosystem services, led by FR & SE
  • Yield gaps and resource use efficiency, led by NL
The emerging EU-NZ cooperation landscape

**JPIs**
- FACCE (Ag)
- HDHL (Food)
- OCEANS
- URBAN
- ......

**EIT KICs**
- Climate
- Food (2016)
- Mobility (2018)

**R&D Networks**
- Enterprise Europe Network
- Eureka
- IraSME

**PPP**s
- Bio-based Industries
- Factories of the Future
- Sustainable Process Industries
- Energy-efficient Buildings
JPI projects involving NZ partners

FACCE-JPI projects involving NZ partners

• **TSARA** - Targets for Sustainable And Resilient Agriculture (SURPLUS ERA-Net Co-fund)

• **Models4Pastures** - Robust models for assessing the effectiveness of technologies and managements to reduce N2O emissions from grazed pastures (Multi-partner call on Ag GHG mitigation)

• **RumenStability** - Understanding the development and control of stability in the rumen microbiome as a basis for new strategies to reduce methanogenesis (Multi-partner call on Ag GHG mitigation)

• **I.N.C.O.M.E** - Increasing Adoption of Mitigation Options to Minimise Agricultural GHG Emissions (Multi-partner call on Ag GHG mitigation)

• The ERA-NET Co-fund **ERA-GAS** (monitoring and mitigation of agricultural and forestry greenhouse gases) also involves NZ.

JPI HDHL projects involving NZ partners

• **FOODBALL** - The Biomarker Alliance

• **LONGLIFE** - Food Fermentations for Purpose: Health Promotion and Bio-preservation (to start in 2016)

• **MaNuEL** - Tackling Malnutrition in the Elderly Knowledge Hub (to start in 2016)

• International Alignment of JPI HDHL led by NZ Health Research Council
Future challenges and opportunities

- Alignment of programmes is an issue for both EU and non-EU countries alike, at all levels:
  - International alignment
  - Alignment at the European level
  - National alignment
- Possible pathways to better alignment:
  - New NZ International Science Strategy and Catalyst Fund
  - Greater cross-engagement between JPIs and other EU mechanisms
  - Development of international umbrella platforms
- Science advice to policy making:
  - New EU Science Advice Mechanism (SAM)
  - G20 Meeting of Agricultural Chief Scientists (MACS)
  - International Network of Government Science Advisers (INGSA)
  - APEC CSA and Equivalents annual forum