

# GLOBAL RESEARCH ALLIANCE

ON AGRICULTURAL GREENHOUSE GASES

8<sup>th</sup> Livestock Research Group meeting

19-20 February 2016



**RESOURCING (cont.)**  
**Matching LRG priorities**  
**with funding**  
**opportunities**

# Resourcing: overview

## **Day 2: 8.40am-10am**

- Report-back from Network Coordinators
- Discuss next steps in terms of developing potential proposals, ERA-GAS bids, accessing other funding opportunities, involving more countries





**REPORT BACK FROM NETWORK  
COORDINATORS**

# Animal Health Network

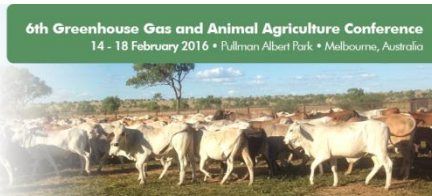
- Need to consider sub-acute (silent) as well as epidemic disease.
- A search for diagnostic “tools” (? Greenfeed; SCC?)
- SUSAN is probably a better fit than ERA GAS for AHN.
- We need (and currently Lack) a compelling research proposition

# Animal Health Network (cont.)

- Both cause and are affected climate change.
- The best way to combat this for livestock and their owners is to improve the productivity of animals (more milk, more meat).
- To do this we first need to better understand the way farmers manage their livestock at present.
- We need to know about how they grow, what they are fed, when they have babies and how much milk they produce.

# Animal Selection, Genetics and Genomics Network

Melbourne, Australia  
February 20<sup>th</sup>, 2016



# Reflection break-out sessions

Best breeding practices from climate smart angle

- Trade offs between traits

Great need for biological understanding of heritability -> where does it come from?

- E.g. energy in, energy out, where does energy go?

For developing countries the focus is on adaptation of local breeds to higher production

- Learn from other countries; avoid making same mistakes, and inventing wheels twice

# Reflection break-out sessions

Breeding goals worldwide – what are aspirations of farmers across different production systems?

- New traits (=> recording schemes!)
  - Temperament, stature, etc.

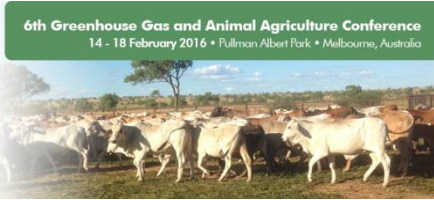
Need for meta-dataset – also across disciplines

Suggested proposals

1. Social economic study on breeding goals
2. Repeated trials in different production systems



**THANK YOU!**



# Feed and Nutrition Network

## Suggestions for ERA-GAS proposal

- Explore feed-nutrition-manure-soil C/N emissions relationships (in particular microbial activity related)
  - Nutrition and manure management practices in relation to GHG emissions
  - Current accounting of these components, and ways to integrate them; modeling to improve this
  - Soil C sequestration (of manure C; soil management)
  - Development of 'functional' meta-analysis of data-bases
- Identify gaps in knowledge and propose improvement of estimates (of rumen, manure and soil emission inhibitors)
- Evaluate inventory methodology on fate of feed, excreta and manure C & N
- How mitigation practices are going to be implemented – economics of implementation, benefits/costs to farmers, tradeoffs
- Whole-farm approach; variety in climatic regions & farming types/conditions/practices; evaluate universality of current knowledge
- Link activities to the current projects, such as FACCE JPI GLOBAL NETWORK, and EU-MACSUR, AgMIP, etc., and keep linkage with LRG-network groups
- Project structure: core FNN project team, open to participation and involvement of e.g. non-funded members

# Manure Management Network

➤ Improve visibility of network

➤ Work together with the FNN

Why:

- ❖ Analyse N excretion and not just CH<sub>4</sub> for dietary additives
- ❖ Feed composition for specific N content in dung and urine
- ❖ Manure is a resource – not necessary for it to be poor in N

How:

- ❖ Bilateral network meetings
  - ❖ Network coordinators should exchange information
  - ❖ Presence of one or more scientist from another network present at network meetings
- Study inhibitors throughout the whole animal-manure continuum
- Data base of emission factors, methods, guidelines
- Use Harvard dataverse
- Review IPCC excretion factors
- Proposed solutions must be economically viable for farmers

# Rumen Microbial Genomics Network

- White paper on priorities – workshop In June 2016, INRA-Rowtt workshop, metagene
- Meta database
- Guidelines and tools for interrogation
- Reference manual on culturing techniques