

GLOBAL  
RESEARCH  
ALLIANCE

ON AGRICULTURAL GREENHOUSE GASES

France

Summary of relevant activities, future priorities and capability needs.

Input to 2024 Livestock Research Group Meeting  
Berlin, Germany

# Relevant activities

- **INRAE:**
  - *Elements for scenarios leading the agricultural sector to carbon neutrality in 2050 (Soussana et al., 2023) for the SNBC3*
- **Activities conducted by Citepa** (organisation in charge of producing the GHG and pollutants inventory for the French Ministry of environment) :
  - *Continuous improvement of the inventory to better reflect reality. Example : work in progress to update the enteric CH<sub>4</sub> emissions from dairy cows, linking them directly to feeding.*

# Future priorities

- **INRAE:**
  - *INRAE low carbon approach, carbon neutrality at the institute level*
  - *Genetic selection of animals with low methane emissions*
  - *METHANE 2030 program, led by Apis-Gene, to structure applicable reduction solutions for all cattle breeders.*
  - *NatAdGES project - Reducing N<sub>2</sub>O emissions from soils, by managing the function that reduces N<sub>2</sub>O to N<sub>2</sub>*
  - *2RI FORWARD - Ecological transition and forestry systems*
- **Citepa:**
  - *Improve the estimates for emissions sources with important uncertainty such as N<sub>2</sub>O from agricultural soils*
  - *Refine and make dynamic as much as possible the key parameters to estimate emissions. Example: nitrogen excreted*
  - *Keep on integrating mitigation strategies as much as possible to better reflect the progress made in agriculture. Example: integration of feeding strategies for enteric CH<sub>4</sub> emissions from dairy cows – possible with the updated estimates*

# Capability needs

- **INRAE :**
  - *Dedicated projects in agroecological transition, towards Zero Net Carbon livestock systems*
- **Citepa :** *two main capability needs identified*
  - *Collection of new activity data (feeding, additives, other strategies) and implementation of the associated statistics system*
  - *Definition of relevant reduction factor/emission factor, involving dedicated research projects.*