RÉPUBLIQUE FRANÇAISE
Liberté
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FRANCE 2030

PROGRAMME DE RECHERCHE
CARBONE ET ÉCOSYSTÈMES CONTINENTAUX

CLIM-FAS

Climate Change Mitigation Potential of French Agriculture in Relation with Public Policies

cnrs INRAE

CLIM-FAS: Overview

COORDINATE		SCIENCE				
Coordinator: **INRAE**	**5 partners** (3 institutes & 2 universities)	**8** research **units**	**+ 25 researchers** (+ 50% young researchers)	**5 years** (2024-2029)	**3.4 M euros** (total budget)	**1.25 M euros** (FairCarboN program)

INRAE · ENS · UGA Université Grenoble Alpes · IESEG School of Management · Université Paris Nanterre

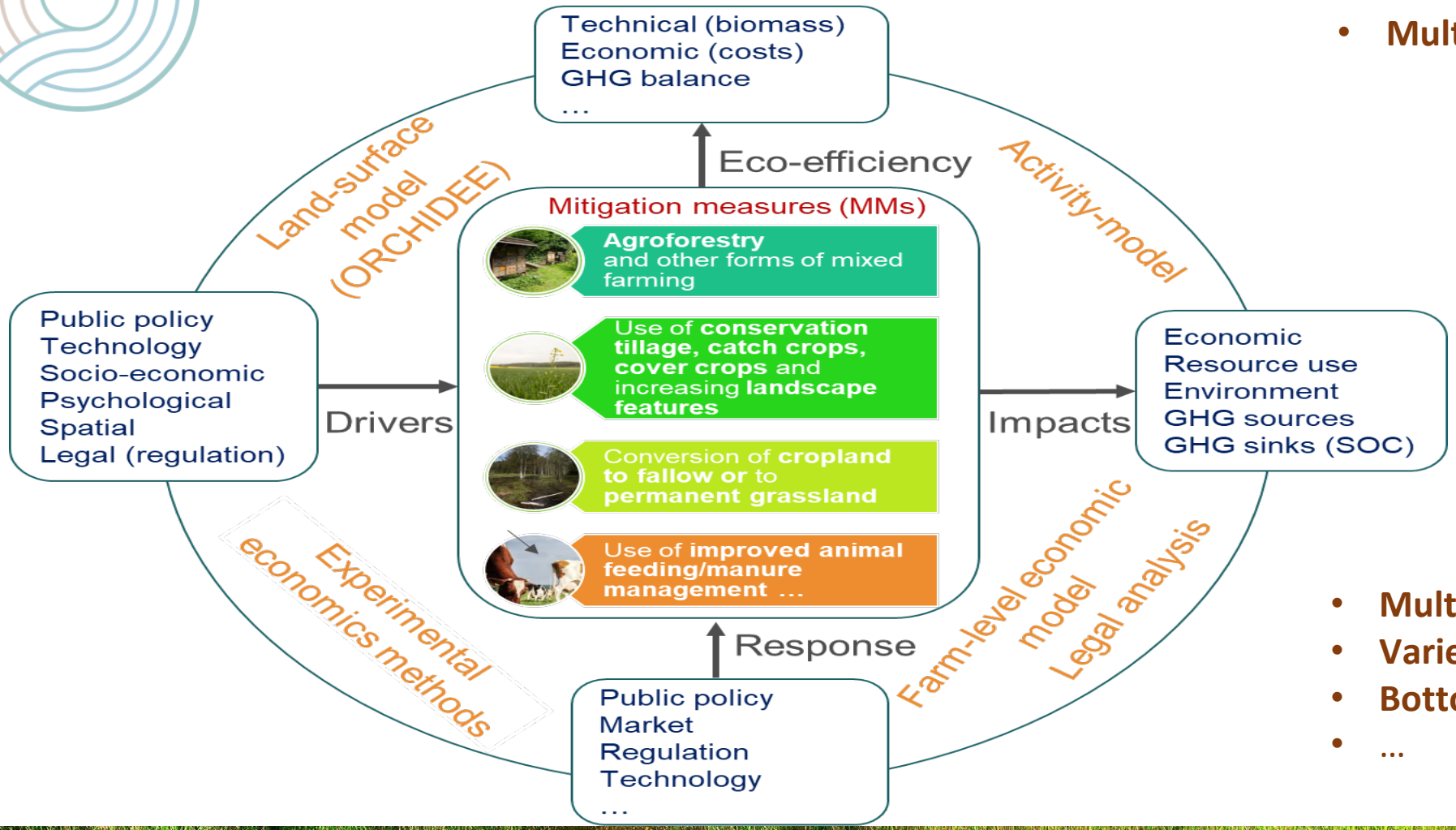
CLIM-FAS: Objectives

- Estimate **GHG sources and sinks** in French agriculture under **current and future** climate, considering soil and climatic conditions, **farm heterogeneity** and diversity in farming practices
- Provide evidence on the **cost-effectiveness** of selected GHG **mitigation measures** (MMs),
- Investigate psychological, socio-economic and legal **levers and barriers** for the uptake of MMs
- Assess **mitigation potential** of French agriculture and estimate heterogeneous **marginal abatement costs**
- Draw up a critical - economic and legal – assessment of selected **existing legal mechanisms, public policies and private initiatives** targeting GHG sources and sinks and propose improvement and **alternatives**
- Provide policymakers with **evidence-based insights** and data-driven **recommendations** on mitigation strategies

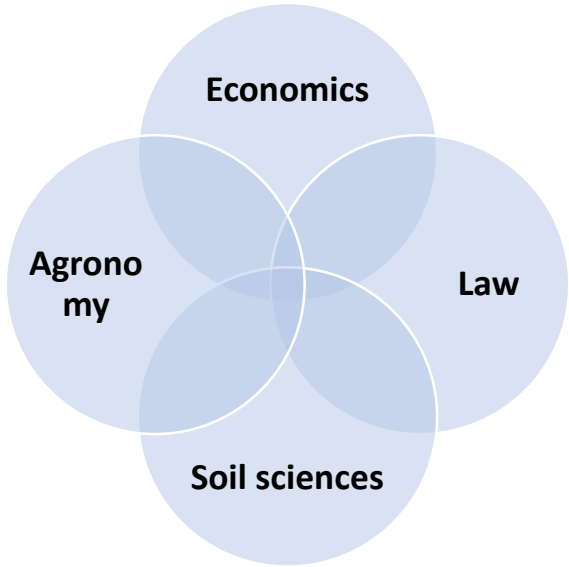
CLIM-FAS: Research questions

- Which MMs are **effective**, under what **conditions**, and at what **cost**?
- What **prevents** farmers from adopting effective MMs ?
- Which **policy**, combinations of **policies** or **economic incentives** could best promote MMs **adoption**?
- What is the **potential for GHG abatement** in the French agricultural sector with optimal MMs in place?
- Which **regions** and **farm-types** would have the highest potential for net GHG emissions reduction?

CLIM-FAS: Methods & Tools



- **Multi and inter-disciplinary research**



- **Multi-scale analysis**
- **Variety of methods & tools**
- **Bottom-up approach**
- **…**

CLIM-FAS: Expected outcomes

- **Net GHG emission** (both GHG sources and sinks) under **current** and **future** climate
- Climate effect on **land management** (including effect on albedo and evapotranspiration)
- **Economic** and **legal** effectiveness of MMs, accounting for farm/geographical heterogeneity, opportunity/MRV costs, distributional effects …
- Influence of **psychological, socioeconomic**, and **spatial factors** on farmers' adoption of MMs
- **Technical** and **economic** mitigation potential of French agriculture
- **Ex-ante** and **ex-post** analysis of selected **policy**, regulation and economic **incentives**
- Functional **legal regime** applicable to carbon sinks

- **Evidence, policy and legal insights**
- **Methods and modelling tools able to quantify the effects of wide range of**

Thank you for your attention!

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