



Eight inter-disciplinary metaprograms



to think about agro-ecosystem management with multidisciplinary points of view
to organise scientific animation (conference, workshop...) and to value it: book, paper, video
to organise intern scientif calls, in preparation for ANR, ADEME, H2020...
to increase Inra international activity

Main challenge for Agriculture: Feeding the world in a sustainable way

A complex, holistic and multi-level challenge in a context of global changes:

- climate change
- biological invasions
- market and price fluctuations,...

Not only a question of food production:

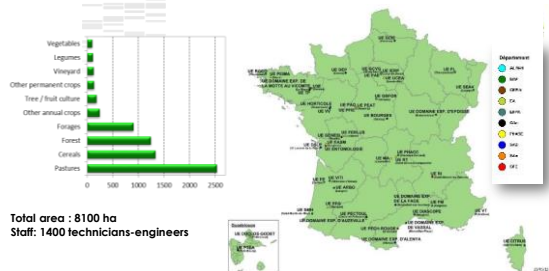
- Other services than production : climate change regulation, open landscape
- Reduction of negative impacts on soil, water, air, biodiversity: pesticides, nitrogen
- Reduction of natural resources mobilization : P, fossil energy...

Not only a challenge for research

- Regional and international trade
- Waste and loss
- Eating patterns...

BUT: Agriculture competitiveness and sustainability essential

Experimental facilities



FROM Analytical experimentation on specific crop or cattle with a strong relationships with professional sector

TO Systemic experimentation on cropping system or livestock system with a strong relationships with various stakeholders

Main field research and actions for Agriculture

Combination of levers:

- Genetics and breeding (efficient use of inputs)
- Plant and animal health (pesticides and antibiotics)
- Practices (soil tillage, animal husbandry) and systems (diversification)
- Agroecology, bioeconomy and precision farming
- Actor decisions (working time, innovation) and public policies

Multicriteria and multiscale assessment:

- Productivity + economic + environmental + sanitary + social performances
- Field/herd+ far+ territory + country+ planet

Research strategy combining:

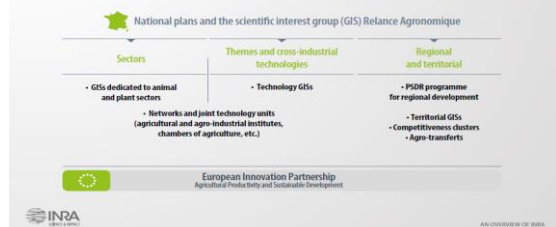
- Inter-disciplinary programs
- Infrastructures for experimentation and modelling
- Non-academic partnership
- Foresight analysis

French partnership organisation

One strategy, one network

A national collaborative research approach with agricultural partners

National plans: Ecophyto, Ecoantibiotics, Ambition bio, etc.



#AI2025: AGRICULTURE INNOVATION 2025
under the request of the Ministers for Research and Agriculture
by ACTA, PT, INRA, IRSTEA headquarters



30 projects grouped in 3 priorities

System approaches & soil, climate : 4/1000 program

Technology-based innovations : e.g. biocontrol, digital and connected agriculture

Open innovation : e.g. living lab