



Living Lab approach enrichs Inrae strategy for research, partnership for innovation and support to public policies

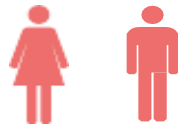
*Christian HUYGHE, Scientific Director Agriculture,
INRAE, France*

Inrae in brief: Key figures

Our staff in 2022:
11,000+ people

Our people

2,005 researchers
3,179 engineers
3,045 technicians
1,850 PhD candidates
2,029 interns



50,5% 49,5%

75% tenured staff

25% contractual staff



HR EXCELLENCE IN RESEARCH

HR Excellence label
of the European
Commission



Equality and Diversity
at Work certification

Budget in 2021:
€ 1045,44 million

77.1% 22.9%



public service subsidy
own resources

More on partnerships and innovation:

- 15 innovation fields
- 450+ partners
- 380 new research contracts with socioeconomic partners
- 116 new disclosed inventions and value-added results
- 45 patent applications
- 69 new licenced patents, know-how, softwares & plant variety rights
- 212 start-ups created since 1999

Inrae roadmap for 2030

INRAE 2030

Building a sustainable future through shared science and innovation

- Scientific priorities for objectives that are clearly in negative tensions: *how to combine instead of looking for trade-off?*
- Agroecology increases the dependency to local conditions. *How to take it into account?*



<https://www.inrae.fr/inrae2030>



5

scientific priorities (SPs)

3

policy priorities (PPs)

SP 1 Responding to environmental challenges and their associated risks

SP 2 Accelerating agroecological and food transitions while answering socioeconomic challenges

SP 3 Building a bioeconomy based on the efficient circular use of resources

SP 4 Promoting a holistic approach to health

SP 5 Facilitating transitions by mobilizing data sciences and digital technologies

PP 1 Placing science, innovation, and expertise at the centre of society-policy dialogue

PP 2 Reinforcing our engagement with academic, European, and international partners

PP 3 Establishing social and environmental responsibility as a common objective

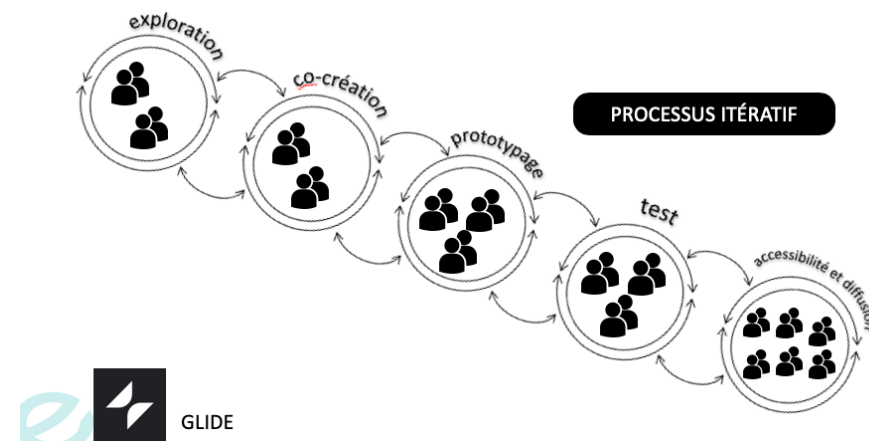
Co-design and participatory approaches are increasingly important

Living Labs for redesigning our research approaches

- Our stakes
 - Combining private goods (production and business) and common goods (biodiversity, air, water, health)
 - i.e. in most cases, combining today and tomorrow
 - *A compromise (trade-off) is not an option*
 - *« One fits all » is not the truth anymore in agriculture, food and environment*
 - *A need to simultaneously think the goal and the transition pathway*
- Participatory approaches and open science are very strong in Inrae
 - A department dedicated to open science (DipSo)
- Using Living Labs concept for enriching our strategy
 - In research
 - In partnership for innovation
 - In support to public policies

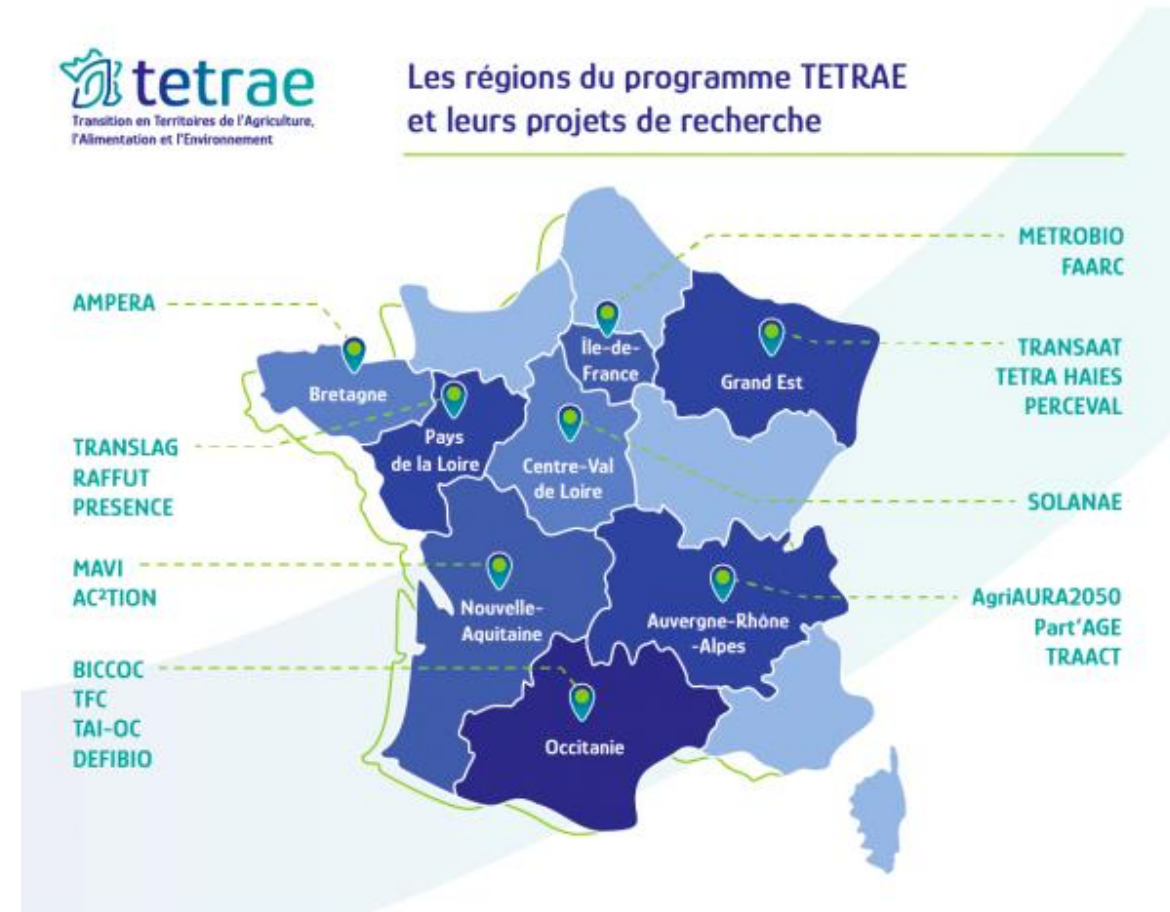
Our various living lab-based designs (1/)

- Territoires d'Innovation (TI): a program set by the government in 2019, supporting large scale and long term transitions.
 - 24 projects with 8 in agriculture/food/environment.
 - Inrae is involved in 7 TI
 - Production and animal welfare (Britany)
 - Viticulture and pesticides (Bordeaux and Cognac)
 - Forestry (East)
 - Food transition (with more grain legumes) in a large metropole (Dijon)
 - Digital transition in agriculture (South, Montpellier)
 - Water quality in intensive agriculture (Britany)
 - Water quality in Mediterranean shore (South, Montpellier)
- Lessons
 - Diversity of topics, with always a tension between private and common goods, and a site-dependency
 - Strong investment of local authorities (regional councils, cities,..)
 - Variable investments of the direct and indirect beneficiaries
 - New role of research and researchers: *sources of truth and trust*



Our various living lab-based designs (2/)

- TETRAE program: a research program dedicated to agroecology-based transition in **agriculture and food**
 - Starting date: 2022; 6 years
 - Financially supported by Inrae and the regional councils
 - Eligibility criteria based upon Living Lab principles
 - Co-design with end-users
 - Co-implementation
 - Real-life
 - An international scientific committee
 - 19 selected projects
 - Master classes



Our various living lab-based designs (3/)



- European projects and programs

- Coordination and Support Action

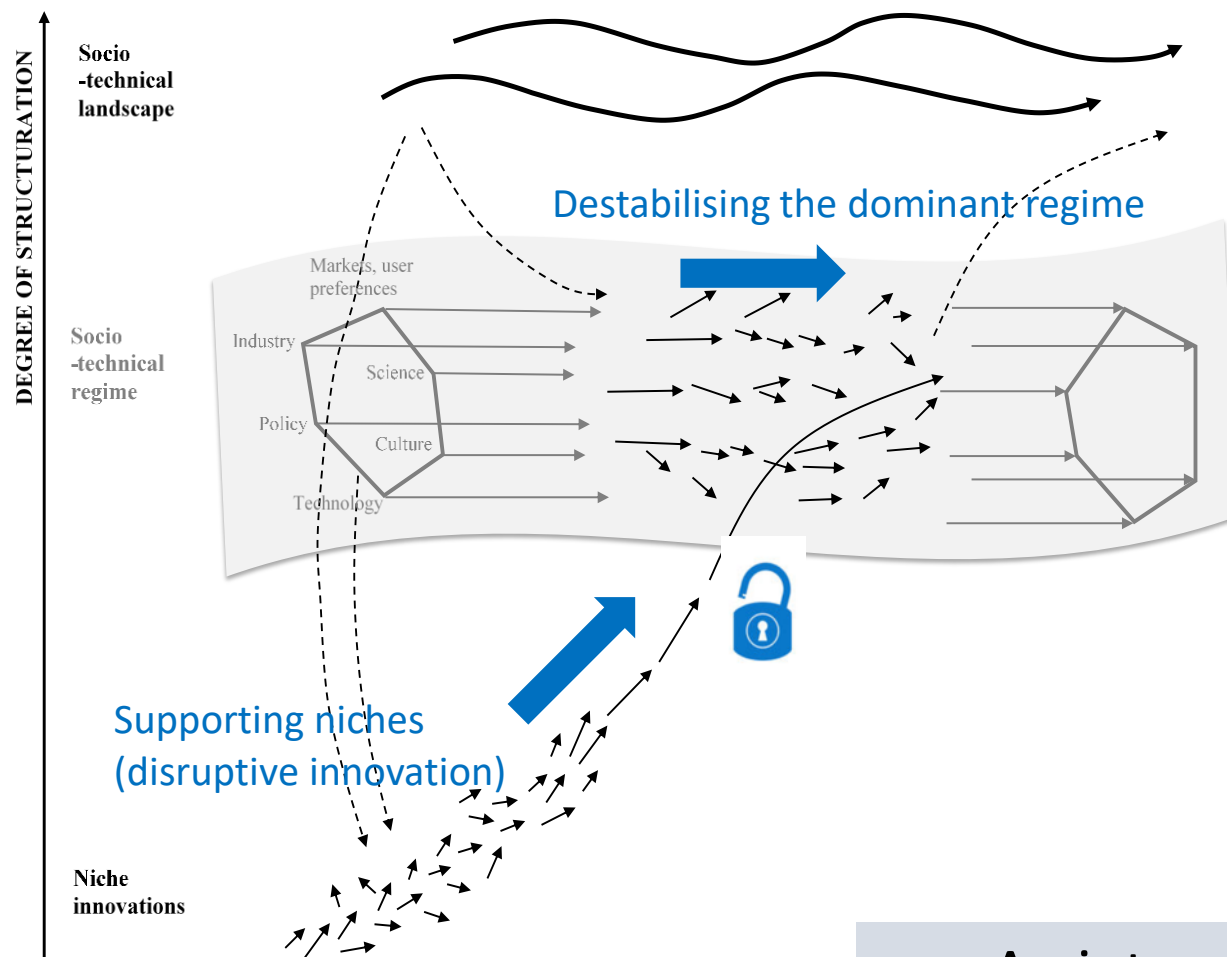
- ALL-Ready: Agroecology and Living Labs. Final workshop in Brussels on 27th of September
 - Key messages
 - Tremendous pressure on agriculture/farmers/rural communities, due to Green Deal objectives
 - Food security/sovereignty for Europe
 - Less pesticides, nutrient use and losses
 - Climate neutrality
 - Agroecology as a (very) narrow path
 - Building future with users is essential, but diversity in Europe is difficult to address

- European partnership: Agroecology and Living Labs

- Approved in July 2023 for a budget of 300 M€ (50/50) and to be launched in early 2024
 - Coordination by Germany and co-ordinated by France
 - More than 70 organisations are presently on board

- European Soil mission, with more than 100 LL for monitoring and improving soil quality

Our various living lab-based designs (4/): Transition campus for addressing locked-in situations



Changes in socio-technic landscapes:
public policies including CAP,
regulations, inclusion of societal
demands

How to go beyond?

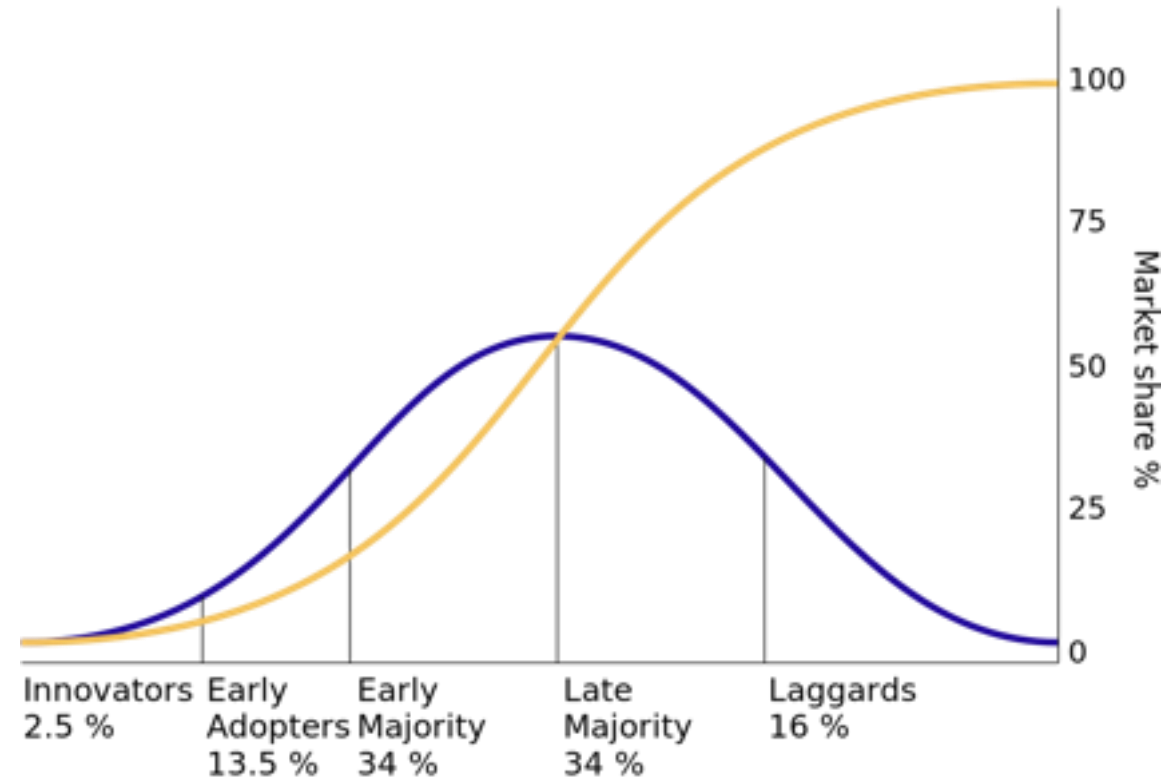
- Building non-prescriptive extreme scenarios
- Living labs (Klerkx et al, 2020)
- Exploring other possibilities such as institutional destabilisation (Turnheim et al)
- A role assigned to various transition campus (Toulouse, Montpellier,...)

Supporting innovation. R&I is key

An internal scientific interdisciplinary
foresight on Transitions to be run in 2024

Why is Living Lab approach enriching Inrae strategy?

- Theoretical aspects
 - Many exciting features
- Innovation process
 - Thinking at the same time the long term goal and the transition pathway
 - Building trust among stakeholders
 - New innovation partners
- Practical issues
 - Time required for projects and their impact (*indicators of progress required*)
 - Hurdles for research projects and management
 - Research does not tell the truth (anymore)
 - How to evaluate projects where the goals are unknown?



Is this Rogers's curve still valid?

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 - How to evaluate projects where the goals are unknown?
- Challenges
 - Research cultural changes
 - How to revisit our mission of support to public policies with the LL possibilities?
 - Adapted methodology required to evaluate impacts of LL-based projects
 - LL is not covering all: how to articulate this approach with other participatory designs such as OFE?

Thank you for your attention...
Merci de votre attention ...

