

science for people, life & earth



French national research institute for agriculture, food & environment

INRAE is a broad community of people who are committed to tackling this century's challenges and guiding the transformations that will affect agriculture, food, and the environment



a word from the CEO

NRAE, the new French National
Research Institute for Agriculture,
Food, and Environment, resulted
from the merger of INRA and IRSTEA.
Although these two institutes differed in
size, approach, and research specialties,
they shared an interest in three key
themes: agriculture, food, and the
environment.

This merger of two public research institutions is unique in the history of French research. It required more than two years of work and close collaboration between our two communities, as well as a continual dialogue with all our staff members. The overarching aim of the new institute is to capitalise on the strengths of its predecessors, creating the basis for a new dynamic. There remains much to do. However, given the intrinsic potential of this new venture, combined with its sound strategic choices and the great resolve of those involved. INRAE's future holds great promise.

As I write these words, the creation of a new research community is underway. Via a collaborative approach, the institute's employees are all contributing to the development of our strategic plan for the coming decade—INRAE 2030. This plan will, in addition, be refined based on exchanges with the diverse socioeconomic stakeholders with whom we partner.

In our rapidly changing world, we have a duty to facilitate societal transitions by inventing the agricultural and food systems of tomorrow, while simultaneously protecting and restoring the environment. We must also foster an environmentally responsible bioeconomy that has strong regional roots.

We are aware that society is expecting research-based solutions. INRAE has resolved to tackle these unnprecedented challenges.

Given what lies ahead, I am proud to be working with a committed and unified group of people who are keenly aware of the societal challenges we are facing. I know that I will be able to count on each and every one of you to help build our sustainable future by working towards the greater good with confidence and determination.

Philippe Mauguin
Chair and Chief Executive Officer



Vision & mission

umankind and the planet are facing global changes that, in turn, create challenges for research. These challenges include mitigating climate change and adapting to its effects; increasing food and nutrition security; transitioning to new agricultural systems; preserving natural resources; restoring biodiversity; and anticipating and managing risks. It will also be important to consider more regional issues such as living conditions, farmers' salaries, the economic competitivity of companies, land use, and universal access to healthy and varied diets.

As the world's foremost institute for research on agriculture, food, and the environment, INRAE has a responsibility to address today's greatest challenges. INRAE therefore intends to conduct research, develop innovations, and support public policies with a view to permanently transforming the way we grow crops, breed animals, produce food, and interact with the environment. The institute will pursue research that serves people, life, and the earth by finding solutions to our greatest current problems.

INRAE's diverse research gives rise to ready-to-use results and knowledge via a process that seamlessly combines basic and applied science and that includes both discipline-specific research and interdisciplinary approaches. In the pursuit of its mission, INRAE relies on a network of research infrastructures and experimental facilities that is unequalled in Europe.



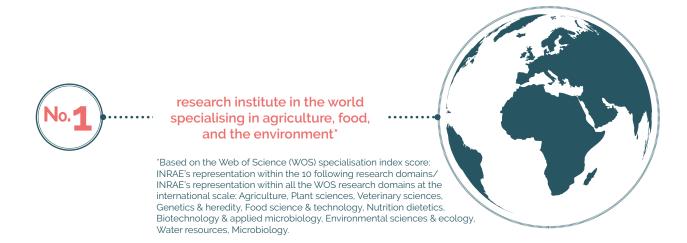


INRAE is dedicated to carrying out open and participatory science. The institute also plays a key role within the French landscape of higher education and research and has developed numerous regional relationships and research alliances. Via its international network of collaborations, INRAE works with the best research teams in Europe and the world.

In its scientific approaches and management policies, the institute is dedicated to applying a code of ethical practices rooted in responsibility, impartiality, integrity, dignity, and probity. This commitment serves the common good.

INRAE is eager to collaborate with and support any stakeholders who are tackling the development of more sustainable agricultural, food production, aquatic, forestry, or regional systems. The institute is making important discoveries and developing novel solutions in these areas.

These words are more than a goal. They are a promise.





An ambitious & collaborative research strategy

As an institute performing targeted research, INRAE aims to generate, disseminate, and exploit knowledge, technology, and expertise to inform and promote transitions in agricultural and food systems and to develop strategies for preserving the environment.

Researchers at INRAE

- Produce and disseminate knowledge to help solve major societal challenges
- Put this knowledge to work to foster innovation, provide training, offer expertise, and lend support to public policies
- Collaborate with a broad diversity of stakeholders (e.g., academics, socioeconomic players, non-profit organisations) as well as with everyday citizens



INRAE's approach involves

- Interdisciplinary foresight analysis of current challenges
- Research at the frontiers of knowledge that encourages breakthroughs
- Academic partnerships at regional, national, European, and international scales, which provide strong ties to regional structures within the French landscape of higher education and research
- Partnerships with stakeholders on the ground: farmers, private companies, NGOs, regional governments
- Open-source tools that promote innovation and facilitate the exchange of ideas, knowledge, and experience
- Infrastructure that enhances the sharing of research and data
- Exchanges with the general public to explain, debate, and engage in research

INRAE 2030, a participatory project

Drawing on the strength of its new research community, INRAE is committed to collectively building its strategic plan for the coming decade. Accordingly, the institute invited all its staff and partners to participate in this collaborative project, which while ambitious remains realistic.



"At INRAE, we are all enthusiastic about conducting research that will help the planet and its inhabitants"

Christine Cherbut







The centres

With its 18 research centres, INRAE is present in all regions of France. The institute's headquarters are situated in two locations.





1 French West Indies

President: Harry Ozier-Lafontaine

2 Burgundy-Franche-Comté

President: Nathalie Munier Jolain

3 Brittany-Normandy

President: Hélène Lucas

4 Clermont - Auvergne-Rhône-Alpes

President: Emmanuel Hugo

5 Lyon-Grenoble - Auvergne-Rhône-Alpes

President: Pascal Boistard

6 Corsica

President: François Casabianca

7 Grand Est-Colmar

President: Serge Kauffmann

8 Grand Est-Nancy

President: Meriem Fournier

9 Hauts-de-France

President: Jean Tayeb

10) Île-de-France - Jouy-en-Josas-Antony

President: Thierry Pineau

11) Île-de-France - Versailles-Grignon

President: Camille Michon

Nouvelle-Aquitaine-Bordeaux

President: Olivier Lavialle

Nouvelle-Aquitaine-Poitiers

President: Abraham Escobar-Gutierrez

4 Occitanie-Montpellier

President: Sylvain Labbé

45 Occitanie-Toulouse

President: Pierre-Benoit Joly

16 Pays de la Loire

President: Emmanuelle Chevassus Lozza

17) Provence-Alpes-Côte d'azur

President: Jean-Philippe Nabot

18 Val de Loire

President: Catherine Beaumont

49 Headquarters in Paris and Antony

Head administrator: Karine Gueritat



The scientific divisions

INRAE has 14 scientific divisions, each structured around specific disciplines while engaged in both disciplinary and interdisciplinary research.



Action and Transitions Head of division: Christophe Soulard



Agroecosystems
Head of division:
Philippe Hinsinger



Human Nutrition and Food Safety Head of division: Jean Dallongeville



Food, Bioproducts, and Waste Head of division: Michael O'Donohue



Plant Biology and Breeding Head of division: Isabelle Litrico-Chiarelli



Ecology and Biodiversity Head of division: Catherine Bastien





Aquatic Ecosystems, Water Resources, and Risks Head of division:

Head of division: Mohamed Naaim



Economics and Social Sciences

Head of division: Alban Thomas



Animal Genetics Head of division: Edwige Quillet 0¹38 4²⁵9

Mathematics and Digital Technologies Head of division:

Hervé Monod



Microbiology and the Food Chain Head of division: Sylvie Dequin



Animal Physiology and Farming Head of division: Françoise Médale



Animal Health Head of division: Muriel Vayssier-Taussat



Plant Health Head of division: Christian Lannou







Expertise and support for public policies

INRAE's Directorate-General of Expertise and Support for Public Policies helps apply the institute's scientific knowledge in the development of expertise, foresight studies, and support for the creation and implementation of public policies. The aim is to anticipate societal challenges.

By disseminating its research results to policy stakeholders, policy-makers, ministries, national agencies, regional governments, the European Commission, and/or international organisations, INRAE embraces a collaborative approach that balances long-term perspectives and current policy priorities. These exchanges enrich the institute's work, infuse its research with relevance, and contribute to societal debates.

The goal of this directorate is to

- help policy-makers exploit 1) recent research developments in the agricultural, food, and environmental sciences; 2) the results of INRAE foresight studies; and 3) INRAE's ability to incorporate knowledge via a transversal approach
- build close collaborations with policy-makers at local to international scales
- offer expertise that provides a standard of reference at the national, European, and international level
- **use** innovative tools and participatory processes to provide expertise and support for public policies



"We must anticipate the major challenges we will face, contribute to societal debates, and inform public policies" Patrick Flammarion INRAO



Partnerships & innovation transfer

A wide range of shared facilities are found in the institute's research infrastructures, whose excellence is highlighted by their inclusion in national and European roadmaps.

Our socio-economic partnerships are centred around 15 innovation domains and involve 5 Carnot Institutes (French public research centres that collaborate with industry partners).

Actions that foster a culture of innovation

- All invention disclosures and exploitable results are subject to in-depth assessments to determine the form that innovation should take (e.g., patents, software, serious games, or plant variety certification).
- Research teams are trained to extract their key findings and transform them into innovations via workshops focused on creating value from research.
- NRAE holds one-day workshops on business creation to help guide staff who wish to create their own companies.

A network dedicated to helping scientists optimise and transform their results

- 40 project engineers across France help researchers develop, carry out, and manage projects.
- 15 staff members are tasked with developing new partnerships and innovation-generating projects; their responsibility is to provide support for the target strategy in each domain of innovation.
- 10 staff members focus on value creation; they help transfer inventions to the socio-economic sphere and create new companies.



40

project engineers found across France help researchers

15

staff members are tasked with developing new partnerships and innovation-generating projects

10

staff members focus on value creation



Europe and the World

Bolstered by its European and international partnerships, INRAE is committed to playing a key role in the conversion of knowledge into concrete, sustainable solutions.

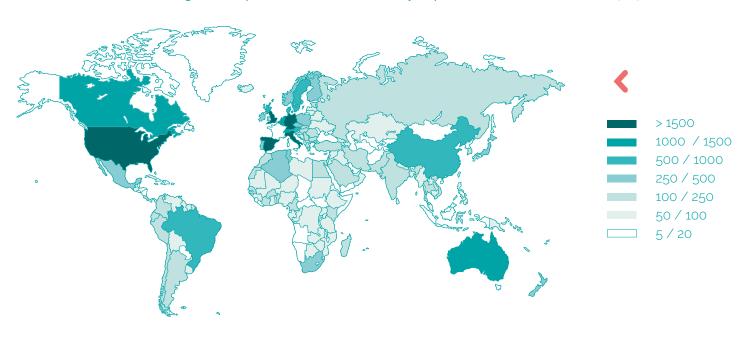


"The support that the European Union provides to our international partnerships creates synergies between Europe and the rest of the world"

Jean-François Soussana

Map of INRAE's co-publications

Data obtained using the Web of Sciences InCites Clarivate Analytics for 2014–2018 (InCites dataset: 26/09/19)





European partnerships

INRAE plays a major role in advancing European research. The institute coordinates and participates in numerous European projects and contributes to shared infrastructures.

- Research projects: in 2019, INRAE participated in 249 European research projects (acting as coordinator for 78). The institute is ranked number one in Europe with regards to H2020 Societal Challenge 2—"Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy".
- Infrastructure: INRAE leads or participates in 7 ESFRI projects (which involve collaborations among European countries) and 11 projects aimed at consolidating research infrastructures (which involve collaborations among European research institutes)

The priority project of international scope "Soils and climate change"

emerged from the 4 per 1000 initiative proposed by France during the 2015 United Nations Climate Change Conference (COP 21). It has established a global research initiative (during a preparation phase funded by the European Commission) that is linked to innovation-focused projects centred on carbon storage and carbon monitoring in soils, notably via the Climate Knowledge and Innovation Community (Climate KIC).

Active collaboration with European and international partners

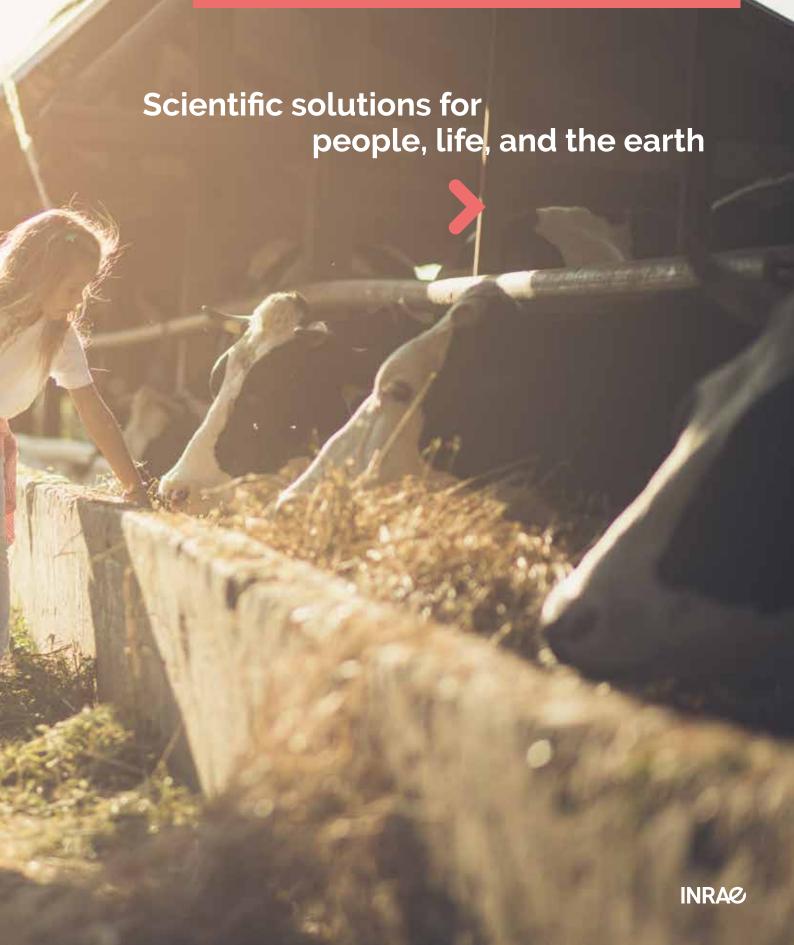
INRAE plays an active role in EU-funded programmes. The institute is building structured partnerships with European collaborators through various means. These include joint research programmes focused on water resources and climate change and via networks of European institutes, such as the Partnership for European Environmental Research (PEER). INRAE's international partnerships take three forms:

- International associated laboratories (LIAs): "laboratories without borders" where INRAE scientists work with international collaborators to build joint projects of excellence
- International research networks: INRAE participates in networks focused on specific research themes
- Priority projects of international scope:
 INRAE helps structure resources to boost
 collaborative research in specific subject
 areas

249

European research projects







Human resources and attractive working conditions

With 12,000 staff, an annual budget of more than 1 billion euros, and an unparalleled wealth of expertise, INRAE embodies a different approach to collective action and is committed to making broad strides in sustainable development.

To this end, the institute is using first-rate policies and procedures to manage its human resources.

Human Resources Excellence in Research Award from the European Commission

INRAE received the European Commission's Human Resources (HR) Excellence in Research Award because of its high-quality recruitment, hiring, and training practices, as well as its work to promote healthy psychological and social working conditions. The institute remains committed to applying this HR approach to create a favourable work environment for all its staff.



A commitment to equality and diversity

INRAE's gender equality policy seeks to eliminate disparities between women and men in all areas and at all levels of responsibility. Its diversity policy aims to ensure that everyone has an equal chance at success during hiring and career advancement. Notably, INRAE has long been proactive in fostering the greater professional inclusion of people with disabilities. This policy reflects the belief that a diverse and multicultural workforce is a valuable resource. In January 2020, INRAE became the first public research institute to receive Diversity and Equality at Work certification from AFNOR.



We firmly believe that promoting a **healthy work-life balance** is important to fostering positive working conditions. INRAE provides attractive employee benefits to staff at all levels. These benefits include flexibility in defining one's work shift and location, the option to telecommute, the option to work part-time, and structural support during life transitions.

Strengthening our level of commitment



- By encouraging a caring approach, respecting the right to make mistakes, and promoting openness to the world
- By demonstrating our commitment to sustainability through our daily actions, such as limiting our greenhouse gas emissions via researcher mobility policies, purchasing decisions, the use of digital tools, and optimised building management; using more sustainable management methods during our research projects; and transforming our 11,000 hectares of experimental land into unique biodiversity hotspots







Key Figures

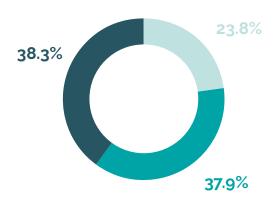
Combined data from 2019 for INRA and IRSTEA

Personnel

(employees at INRA and IRSTEA in 2019)







- 1,990 researchers
- > 3,165 engineers and assistant engineers
- > 3,186 technicians

Structure



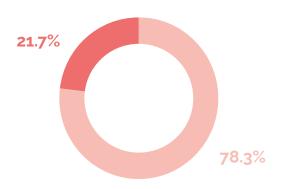
18 centres

14 scientific divisions

research units, experimental research units, and support units



Budget



Resources: Budget of €1,0008.8 billion

- **≥ €790.1** M in public subsidies from the French government
- **Y** €218.7 M in external revenue

€154.2 M in external revenue produced by research contracts

€64.5 M in external revenue from other sources

Partnerships & innovation transfer

Socio-economic partnerships

- More than 450 socio-economic partners
- €28.7 M in revenue
- 5 Carnot Institutes

Intellectual property

- 148 invention disclosures & exploitable results
- 38 patent applications filed

Value creation from research results

- 97 new licenses requested for patents, expertise, software & plant variety certification
- €6.2 M in revenue obtained from patents, consultancy work, software & plant variety certification

Business creation

• 143 start-ups "home grown" at INRAE since 1999

Education

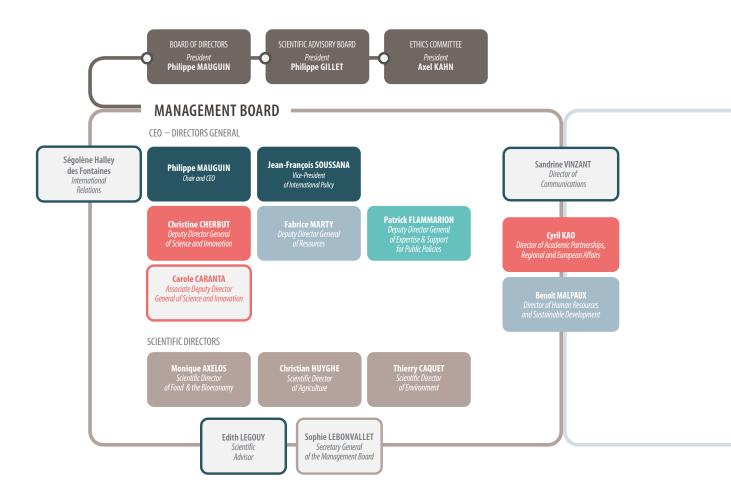
- 1,839 PhD students (40% from foreign countries)
- INRAE is partnered with 33 universities across France



Organisation

Organisation chart

(as of 1st January 2020)







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