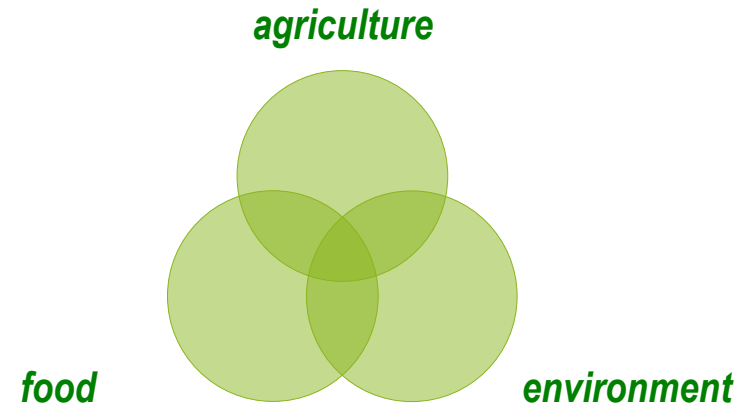


**ESF Member Organisation Forums  
on Research Evaluation**  
Evaluation of Publicly Funded Research  
& Indicators of Internationalisation  
Paris, 9-10 May 2011

François Houllier, INRA

# Missions

- 5 milestones
  - 1946 : creation of INRA
  - 1984 : INRA established as a public targeted research organisation at the crossroads of
    - Knowledge dynamics in life sciences
    - Society's expectations regarding agriculture and related industries
  - 2000 : INRA strategic domain is extended to « agriculture, food, environment and territories »
  - 2005 : the global nature of scientific issues in this domain is explicitly acknowledged
  - 2010 : a new strategic plan for 2010-2020



“The inescapable interconnectedness of agriculture’s different roles and functions”



8,532

full-tenure members of staff

more than **49%**  
of them women

**21%** of foreign  
researchers recruited

and **1,891**  
PhD students supervised

# INRA 2009, key figures

**A community of 12,000 persons all over France**  
(permanent and temporary staff, PhD students, post-docs,  
members of associated organisations, ...)

€ **772**

million budget

Participation in

**103**

European projects

**26**

including collaborative  
projects coordinated by  
the Institute under FP7

**483** patents, software  
programs, databases and  
registered brands (2009)

## Global scientific profile (researchers)

68 % Life sciences

12 % Environmental, engineering and material sciences

8 % Biotechnical sciences

8 % Economic and social sciences

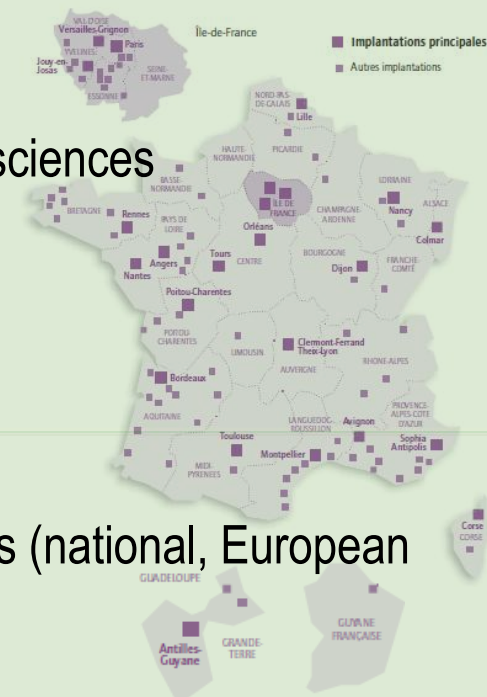
4 % Computational sciences

## Partnership

50 % of research results with academic institutions (national, European and international)

20 % with socio-economic partners

15 % anticipation, knowledge transfer and decision-making information



## More than 30 % increase in scientific publications over 2001-2008 ...

Axe	2001	2002	2003	2004	2005	2006	2007	2008
A. Environnement	17 %	17 %	16 %	20 %	21 %	25 %	22 %	26 %
B. Alimentation humaine	7%	8 %	8 %	9 %	13 %	11 %	13 %	12 %
C. Les produits et leurs transformations	18 %	18 %	17 %	16 %	16 %	18 %	16 %	18 %
D. Recherches génériques	15 %	15 %	15 %	11 %	13 %	12 %	15 %	17 %
E. Systèmes de productions agricoles	36 %	34 %	36 %	35 %	29 %	26 %	27 %	22 %
F. Organisation des acteurs, politiques publiques	7 %	7 %	9 %	8 %	8 %	8 %	8 %	6 %
<b>Nombre total de publications</b>	<b>2581</b>	<b>2711</b>	<b>2741</b>	<b>2843</b>	<b>3067</b>	<b>3195</b>	<b>3473</b>	<b>3362*</b>

... with a growing share in ecology/environment and food/nutrition sciences

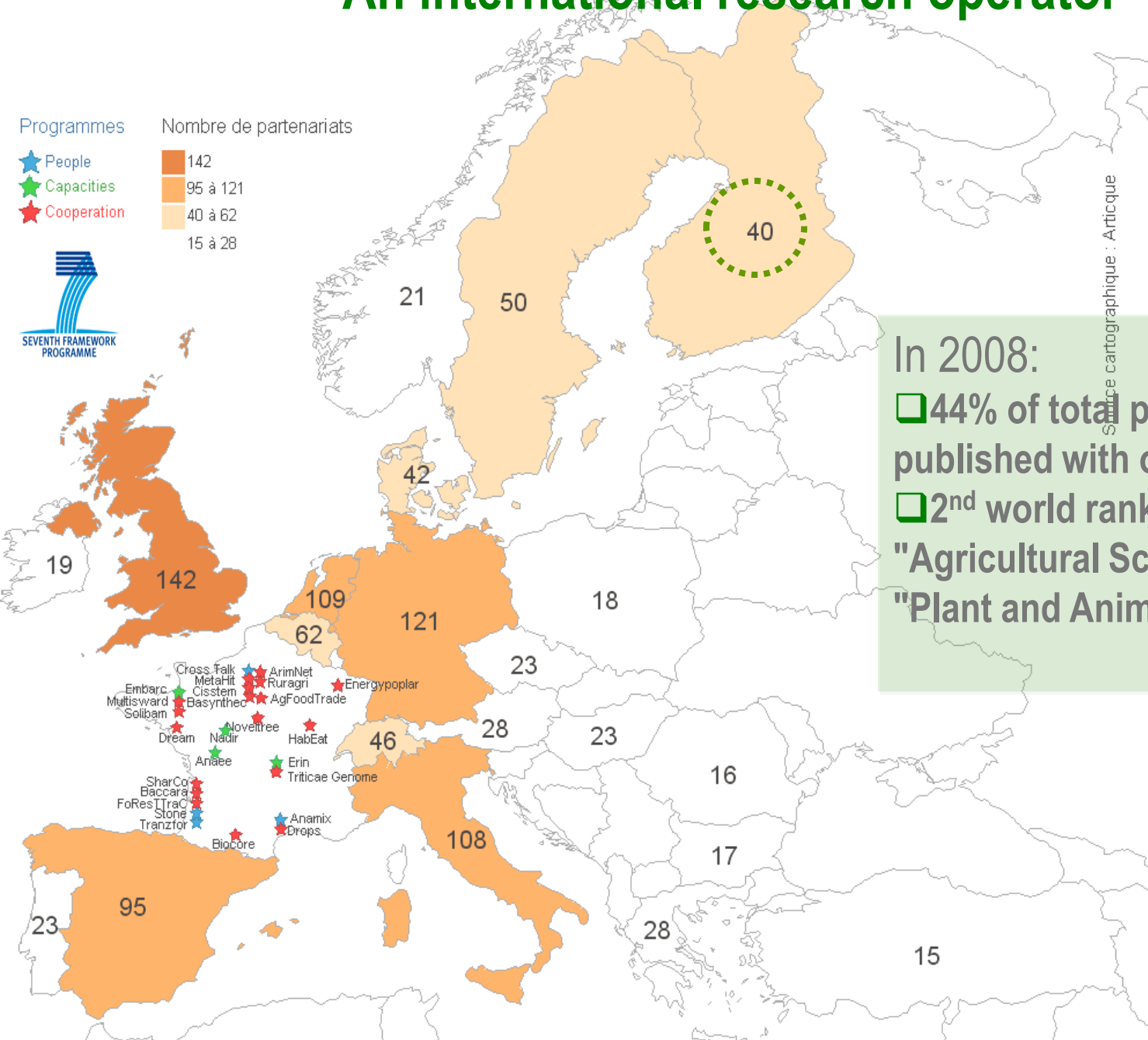
# An international research operator

Programmes

- ★ People
- ★ Capacities
- ★ Cooperation

Nombre de partenariats

- 142
- 95 à 121
- 40 à 62
- 15 à 28



Source cartographique : Artique

In 2008:

- 44% of total publications jointly-published with other countries
- 2<sup>nd</sup> world ranking in "Agricultural Sciences" and in "Plant and Animal Sciences"

# INRA external assessment in 2009

- Among the recommendations :
  - Improve the **international visibility**
  - Strengthen the already existing foresight and expertise capability
  - Better assess the socio-economic **impact of research**
  - Develop partnerships in food and environment

*<http://www.aeres-evaluation.fr/News/News/INRA-and-CEA-evaluation-reports>*



## The strategic plan INRA 2010-2020 “Targeted research”

[http://www.international.inra.fr/the\\_institute/new\\_scientific\\_priorities\\_for\\_2010\\_2020](http://www.international.inra.fr/the_institute/new_scientific_priorities_for_2010_2020)

DOCUMENT D'ORIENTATION  
INRA 2010 - 2020

une science  
pour l'impact

# From the context ...

Foresights, collective expertise and advanced studies ...



Global Challenge  
FOOD and NUTRITION SECURITY

- Demography & urbanization
- Diet and health transitions
- Natural resources dependence
- Fossil carbon limitation
- Climate change: mitigation/adaptation

... as well as internal meetings (14 scientific divisions, 4 dedicated think tanks)

... to research priorities



# The challenges of agricultural research



A systemic, integrative  
and multidisciplinary approach

BIOLOGICAL SCIENCES



At the interface with environmental,  
engineering, informatics, economic  
and social sciences

Modelling

DATA



Technologies  
Engineering  
Innovation  
Anticipation

Observation

Experimentation

# The strategic plan INRA 2010-2020: scientific priorities

## Global food security and global changes

- Integration of the economic, social and environmental performances of agriculture.
- Development of healthy and sustainable food systems.
- Attenuation of the greenhouse effect and the adaptation of agriculture and forestry to climate change.
- Valorisation of biomass for chemicals and energy.

Life and environmental sciences,  
economic and social sciences



Agro-ecology  
Predictive approaches for biology

# The strategic plan INRA 2010-2020: “science with impact”

- Scientific priorities
- ... and 4 engagements
  - To become more international
  - To develop transdisciplinary programmes
    - On major societal issues or emerging scientific areas
    - Open to partners
    - As vectors of internationalisation
  - To strengthen expertise and foresight activities as well as advanced studies
  - To strengthen the role of regional centres in Institute’s management and partnership
- ... with likely long-term consequences on research assessment as well as on indicators of internationalisation



# Research assessment at INRA

- At various levels, with a 4-5 year theoretical periodicity
  - **Individual level, every 4 years by independent panels appointed by INRA**
    - Researchers, and engineers (different procedures)
  - **Research units, by independent panels appointed by AERES**
    - From 10 to 200 permanent staff per unit
  - **Research divisions, by independent panels appointed by INRA**
    - Cluster of research units, all over France, from 100 to 1000 permanent staff
  - **The whole institute, by an independent panel appointed by AERES**

# Research assessment at INRA

- At various levels, with a 4-5 year theoretical periodicity
- Systematic reference to the wide range of missions and to the subsequent wide range of activities and outputs
  - **Publications (of various types), innovations, biological resources, databases, software, partnerships, ...**
  - **EREFIN, a group of organisations interested in the evaluation of targeted research :**  
*<http://www.obs-ost.fr/en/la-cooperative/erefin.html>*
- An increasing attention paid to outcomes and impacts, as well as to internationalisation
  - **A dedicated project on the assessment of public research in agronomy**

	Knowledge production	Partnership and network management	Transfer and communication
A. Academic actors			
B. Socio-economic actors			
C. Public policy makers			
D. Students			
E. Citizens			
F. The unit			

# Research assessment at INRA

- At various levels, with a 4-5 year theoretical periodicity
- Systematic reference to the wide range of missions ...
- An increasing attention paid to outcomes and impacts, as well as to internationalisation
- A specific directorate in charge of research assessment
  - **Apart from Human Resources**
  - **Not involved in recruitment procedures**
  - **In charge of the executive secretariat of the panels dedicated to individuals**
  - **In charge of the relationships with the National Agency in charge of research assessment (AERES)**
  - **In charge of managing the information linked to individual and collective assessments**
  - **In charge of monitoring changes in research assessment in France and in Europe and in suggesting adaptations in our procedures**

Thank you for your attention ...  
and best wishes for this double forum on evaluation