



endure
diversifying crop protection



The ENDURE Network of Excellence

Background – Objectives

**Lucerne
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FOOD
QUALITY
AND
SAFETY



 **endure**
diversifying crop protection

A challenge for research



- ❁ **Basic knowledge on crop-pest systems has considerably increased, but with little impact at the field level as yet**
- ❁ **Some farmers are experimenting practical solutions but often lack scientific support**
- ❁ **Uncertainties (climate change, pest invasions, price volatility, policy changes) make things more complex**
- ❁ **Devising innovative solutions require contributions from diverse research areas**

Interest for pooling forces at EU level



**Societal expectations for
safe food and environmentally
friendly agriculture**



Area 5.4.6 - Safer and environmentally friendly
production methods
and technologies and healthier food stuffs.
Topic 1 - Reducing the use of plant protection
products.

**Crop protection:
fragmented scientific
knowledge and R&D
community**

EC Contribution
11,2 M €



End-users (farmers & advisers)
+ industry, policy-makers, society at large...

The ENDURE consortium



Research

- INRA - FR
- JKI - DE
- RRES - UK
- CIRAD - FR
- CNR - IT
- AGROS - CH
- WUR (PRI-PPO-LEI) - NL
- IHAR - PL

Education & R

- SSSUP - IT
- SZIE - HU
- UdL - SP
- AU - DK

Extension

- DAAS - DK
- ACTA - FR

Management

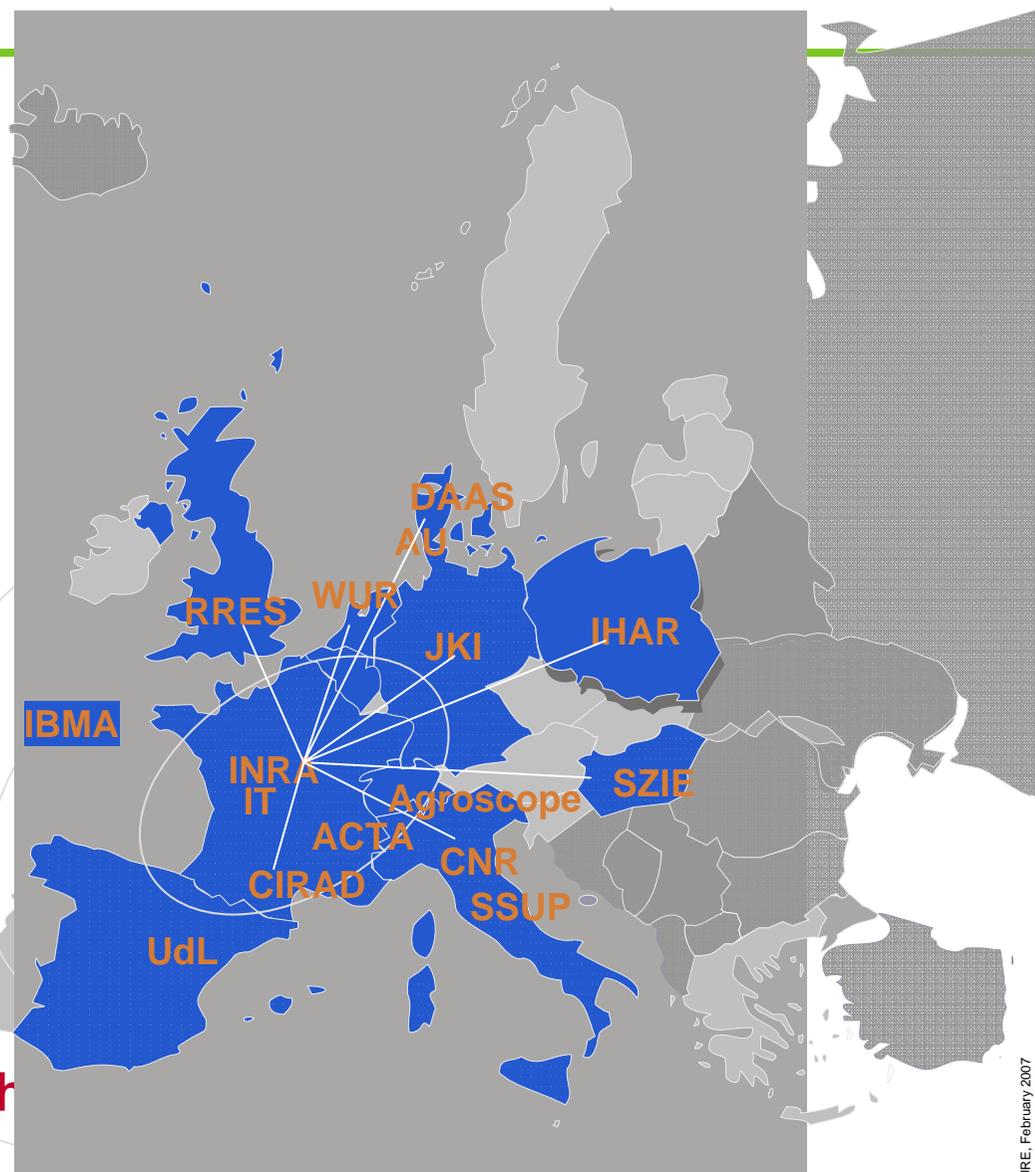
- IT - FR

Industry

- IBMA - Int.

In collaboration with

- INCO countries



Meeting short-term farmers' needs



- 🌻 **Comparing situations in EU countries**
- 🌻 **Identifying available solutions**
- 🌻 **Assessing ongoing experimentations**
- 🌻 **Compared analysis**
 - Performance
 - transferability
 - potential for combination
 - Shortcomings, K gaps, needs for research
- 🌻 **Disseminating results to advisers**
 - Leaflets, Information Center

*Exploiting the EU-wide dimension of
ENDURE*

- 🌻 **Case studies:**
 - ✓Wheat diseases
 - ✓Potato blights
 - ✓Integrated weed management
 - ✓Pomefruit pests and diseases
 - ✓Tomato whiteflies and transmitted viruses

 - ✓Field vegetables
 - ✓Banana

 - ✓Grapevine

Conceiving innovation for the longer term



emerging technologies, new tools and knowledge

- **Progress in some innovative technologies**
 - Precision spraying
 - Pest detection/identification methods
 - DSS improvements
- **Strategies for durable use of resistance genes**
 - Conception of genotypes
 - deployment of varieties
- **Factors of success for the use of the beneficials**
- **New tools for monitoring weeds**
- **Tools for multicriteria assessment**
 - environmental
 - economical

Promoting an holistic approach



- ❁ **From tactic responses to strategic choices**
 - Cultivars, crops, cropping methods
 - Multi-year level
 - Farm, landscape levels
 - Integrating emerging technologies

- ❁ **Requires an holistic multidisciplinary approach**
 - Including the whole chain
 - from input providers to consumers
 - And the role of the advisory system

- ❁ **Supported by « System case studies »**
 - Orchards
 - rotational cropping systems in arable crops
 - Protected Mediterranean agriculture

Exploiting the range of disciplines gathered in ENDURE

sharing information



🌸 **With extension and advisory services**

- Information center, training

🌸 **With other stakeholders**

- Website
- External advisory board

🌸 **With policy makers**

- Providing science-based support to the EU Thematic strategy on the sustainable use of pesticides
- Analysis of the drivers of change and factors of success in IPM implementation

🌸 **With the scientific community**

- Conference, summer school...

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<http://www.endure-network.eu>

