AGRINNOVA

Research bears its fruits

H2020 EMPHASIS

a multi-actor research and innovation action

SFS-3-2014 Native and alien pest in agriculture and forestry

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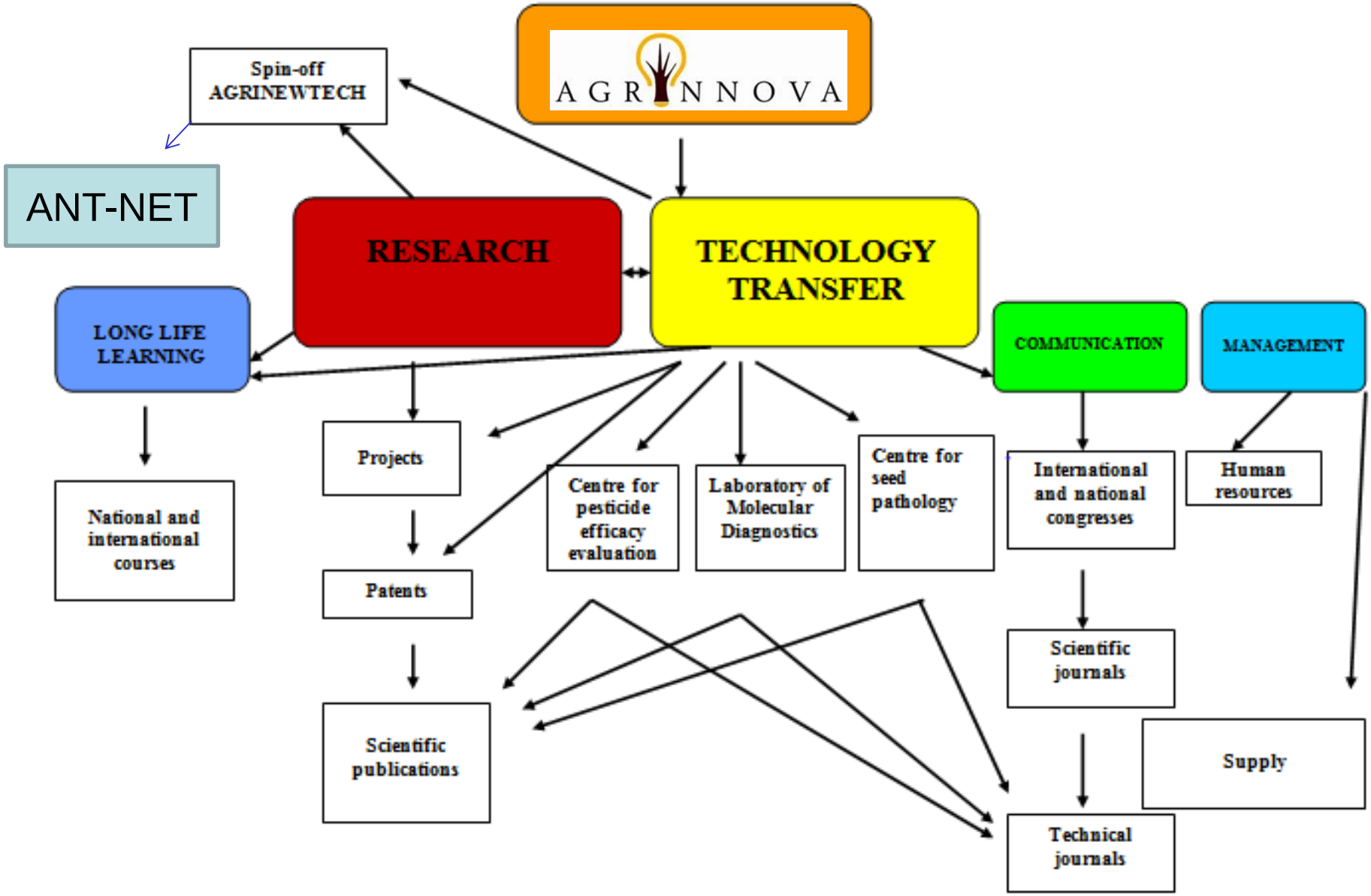
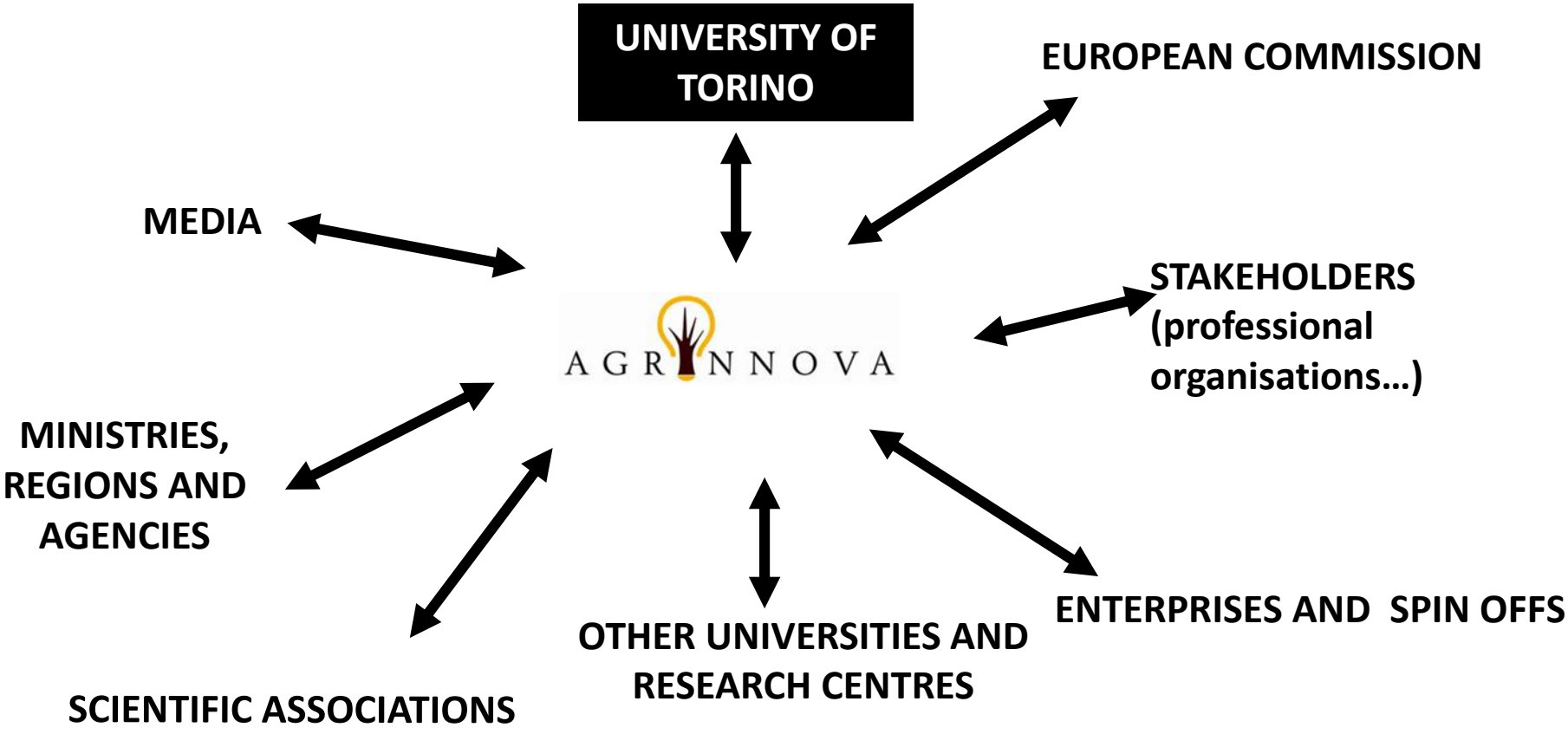
Interactive Innovation in motion: Multi-actor approach and Thematic Networks, Bruxelles, November 24th, 2015

HOW IT ALL STARTED



HOW IT ALL STARTED

STAKEHOLDERS



HOW IT ALL STARTED

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MAIN RESEARCH AREAS

- Sustainable agriculture and environment protection
- Sustainable crop protection
- Climate change and emerging diseases
- Plant and food biosecurity
- Biological and integrated control of plant pathogens
- Biosecurity and agroterrorism
- Waste valorization

PREVIOUS BIOSECURITY PROJECTS

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CROPBIOTERROR

2004-2008 – FP6 **"CROPBIOTERROR - Crop and food biosecurity, and provision of the means to anticipate and tackle crop bioterrorism"**.

TOOLS FOR CROP BIOSECURITY

2005-2006 - **"Tools for crop biosecurity"**(funded by NATO programme "Security through Science").

NATO "SCIENCE FOR PEACE AND SECURITY"

In 2008 the **workshop NATO "Science for Peace and Security"** increased the awareness of researchers and policy makers on possible impacts of plant pests on food security and it strengthen the scientific cooperation on biosecurity theme.

EUROPAID ASIA-LINK BIOSEC

2007-2010 – **Project Asia-Link BIOSEC** aiming to develop innovative detection, containment and control tools of Invasive Alien Species potentially affecting food production and trade.

PLANTFOODSEC

2011-2016- FP7 **Network of Excellence on Plant and Food Biosecurity** aiming to establish a virtual Centre of Competence to prevent, respond to and recover from to **both intentional and unintentional biosecurity threats** to EU agriculture, farming and agro-food industry.

A CONSOLIDATED NETWORK

SOME EMPHASIS PARTNERS ALREADY COLLABORATED WITH AGROINNOVA IN THE ABOVE MENTIONED BIOSECURITY PROJECTS AND BUILT THE CORE OF THE PARTNERSHIP

- **NIAB**
- National Institute of Agricultural Botany, Cambridge (UK)

- **FERA**
- Food and Environment Research Agency, York, UK
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- **IMPERIAL COLLEGE**
- College of Science, Technology and Medicine, Londra (UK)

- **INRA**
- Institut National de la Réchérche Agronomique, Grignon (FR)

- **UdL**
- Universidad de Lleida, Lleida (ES)

- **REC**
- Regional Environmental Center for Central and Eastern Europe, Budapest (HU)

EMPHASIS

Effective Management of Pests and Harmful Alien Species - Integrated Solutions

Duration:
48 months
(2015-2019)

11 companies, 9 SMEs

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EU funding:
6,526.038 €

More than 1,000 man/months

Objective: to develop integrated mechanisms of response measures (***practical solutions***) to ***predict***, to ***prevent*** and to ***protect*** agriculture and forestry systems from native and alien pests threats.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 634179.

ACTIVITIES and NEEDS

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PREDICT

pest management challenges and opportunities will be evaluated according to **stakeholder-focused criteria** and through pathway analysis.

PREVENT

practical solutions for surveillance in different pathways to enhance preparedness will be provided to e**nd-users**, and monitoring tools following outbreaks and eradication will be developed.

PROTECT

practical solutions for managing native and alien pests in agriculture, horticulture and forestry will be developed, their technical and economic feasibility will be demonstrated and their **market uptake will be enhanced.**

PROMOTE

a **mutual learning process with end-users** will be developed, and the solutions identified by the project will be **promoted through training and dissemination**.

INTERACTION WITH PRACTICE

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Stakeholders	Challenges	Expected achievements
Farmers	New pests	New and optimized pest management methods.
	Limitation in pesticide use, IPM knowledge intensive, cost of environmentally-friendly methods	Optimised, cost-effective and novel IPM solutions; diagnostic tool; on farm demonstration and training.
Scientific community	Knowledge of end-users' needs	Learning platform to obtain inputs and feedback from stakeholders.
Quarantine inspection services, NPPOs	Rapid and accurate identification of harmful organisms	Rapid diagnostic methods.

INTERACTION WITH PRACTICE

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Stakeholders	Challenges	Expected achievements
Policy makers	Knowledge needs	Policy analysis; update of international guidelines and/or standards for protection.
Industries	R&D needs, market uptake	Diagnostic and containment products; business plans.
Consumers and society	Food safety and security	Non-chemical methods of crop protection; Sustainable application of pesticides.
	Health issues (pollen allergies, pesticide pollution); reduction of biodiversity	Containment tools for *Ambrosia artemisiifolia* and *Heracleum spp.* Spread; sustainable use of pesticides; identification of pathways of entry.

THE CONSORTIUM

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21 partners from 10 Countries

11 companies (9 SMEs)

EMPHASIS MULTI-ACTOR APPROACH

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Participatory research project

End-users involved in:

- setting the research objectives
- gathering and processing data
- interpreting results.

EMPHASIS approach

~~one-way «knowledge transfer»~~

Knowledge exchange

- early and continuous contact and cooperation between key actors and decision makers;
- identify and specify real end-user needs and challenges;
- develop successful technologies;
- ensuring successful translation of project achievements.

EMPHASIS MULTI-ACTOR APPROACH

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- **Knowledge developed by researchers is tested at farm level.**
- Different actors are invited to join the testing to **fine tune the practical solution:**
  - **farmers** do the testing and reflect on the practical use of the solution;
  - **extension/advisory services** use the knowledge to improve the use so more different end-users can adapt the practical solution;
  - **researchers** adapt the practical solution if necessary based on the input of farmers and advisory services;
  - **companies** that can produce and sell the practical solution later on are also involved;
  - **other stakeholders** are also invited if for example regulations have to be made.
- Field training to spread the knowledge to other end-users:
  - **Pilot farmers, advisory services** and **research** together will design training sessions;
  - **Open days, field demonstrations** and **technical training courses** are possible ways to spread the knowledge to other end-users;
- During the whole process several stakeholders will always participate to have the best support **so the practical solutions will be better implemented by a larger group of end-users**.

ROLE OF NON-SCIENCE PARTNERS

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Key actors represented in the consortium.

31,38% share of EU contribution going to the private sector !

SMEs

1. **AgriNewTech srl**: agricultural and environmental biotechnologies;
2. **AgroBio S.L.:** biological control;
3. **Chatim BV**: Pheromone Mating Distruption Technology & sensor networks;
4. **Metec Innovation Consulting Srl**: administrative and financial management of the project including market development and IPR;
5. **Moverim Consulting**: dissemination strategy and results exploitation, communication to stakeholders community and policy makers;
6. **Optisense Limited**: optical sensor systems;
7. **Semios BIO Technologies Inc**: pest management tools;
8. **SPIN-TO Srl** : communication and public relations;
9. **Integrētās Audzēšanas Skola Ltd. (IAS):** analysis and evaluation of pest management challenges and innovations; open-ended multi-actor activities; testing practical solutions for IPM management.

TAKE-UP OF PROJECT RESULTS BY SMEs

- Involvement of SMES
- Implementation of specific activities dedicated to R&D
- On farm-experiments
- Demonstration and validation

Translation of project results into **marketable products**

Work performed jointly between academia and SMEs
Novel and optimised IPM methods set up and tested jointly with the SMEs
Gradual and smooth transfer process

ROLE OF NON-SCIENCE PARTNERS

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Other Companies:

1. **Agra CEAS**: policy analysis and evaluation assessment;

2. **FERA Science Limited**: developing science and stakeholder dialogue and engagement, **Learning Platform** (novel approach to bring stakeholders and scientists together to co-design/co-develop solutions input into the socio-economic evaluation).

Other actors:

1. **Confagricoltura**: (represents and protects Italian farmers), pest challenge analysis, technology transfer and dissemination activities;
2. **EPPO (European and Mediterranean Plant Protection Organisation):** dissemination of project outcomes to NPPOs.

REACH OUT ACTIVITIES

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- **Spread of results to a wide public.**
- **Mutual learning process (**systematic exchange of information and good practices).
- **Awareness and compliance** with practical solutions.
- **Building capacities** of relevant stakeholders.
- Develop **guidelines and recommendation** (Action Plans).

Three partners are specifically devoted to dissemination activities:

1. REC – scientific aspects
2. MOVERIM - policy makers and regulators
3. SPIN-TO – technical aspects

- Project website: **emphasisproject.eu**;
- Twitter account: **@EmphasisProject**;
- Facebook fan page: **Emphasis Project**;
- press releases; leaflets; poster;
- periodical, digital newsletters;
- peer-reviewd papers;
- technical publications in national languages;
- scientific workshops/symposia;
- national and international events;
- EMPHASIS opinion papers (white papers);
- workshops/roundtables with EU Commission and EU agencies;
- EPPO workshops;
- summer schools;
- multimedia education toolkit (HabiThreats);
- exchange programs (PhD Students).

THANK YOU FOR YOUR ATTENTION!