



# SC2 Dissemination Event

## Sustainable Food Security

### EMPHASIS

Effective **M**anagement of **P**ests and **H**armful **A**lien **S**pecies - **I**ntegrated **S**olutions




[emphasisproject.eu](http://emphasisproject.eu)

M. Lodovica Gullino

Centre of Competence for the Innovation in the agro-environmental sector (AGROINNOVA)  
of the University of Torino

Director and Project Coordinator

27/06/2016



Funded by the EU framework programme for research and innovation, Horizon 2020.  
Grant Agreement No 634179.

# Project outline



emphasisproject.eu

## Challenge

Native and alien pests threats affecting agricultural and forestry sectors and natural ecosystems.

## Main objectives

To ensure a European food security system and the protection of biodiversity and of ecosystem services while developing integrated mechanisms of response measures (practical solutions) to predict, to prevent and to protect agriculture and forestry systems from native and alien pests threats.

## Approach

### PREDICT

pest management challenges and opportunities according to stakeholder-focused criteria

### PREVENT

practical solutions for surveillance in different pathways, and tools for monitoring and eradication.

### PROTECT

practical solutions for managing native and alien pests

### PROMOTE

mutual learning process with end-users, training and dissemination.



# Consortium overview



emphasisproject.eu

## 7 UNIVERSITIES AND RESEARCH CENTRES

- AGROINNOVA, University of Torino, Italy;
- Imperial College, UK;
- Mendel University in Brno, Czech Republic;
- Stichting Dienst Landbouwkundig Onderzoek – DLO, The Netherlands;
- Universidad de Lleida, Spain;
- Institut National de la Recherche Agronomique – INRA, France;
- National Institute of Agricultural Botany, NIAB, UK;

## 9 SMES AND PRIVATE COMPANIES

- AgriNewTech srl, Italy;
- AgroBio S.L., Spain;
- Chatim BV, The Netherlands;
- Integrētās Audzēšanas Skola Ltd. (IAS), Latvia;
- Metec Innovation Consulting Srl, Italy;
- Moverim Consulting, Belgium;
- Optisense Limited, UK;
- Semios BIO Technologies Inc, Canada;
- SPIN-TO Srl, Italy;
- Agra CEAS consulting Ltd., UK
- Fera Science Ltd., UK

## 2 INTERNATIONAL ORGANISATIONS

- European and Mediterranean Plant Protection Organisation - EPPO, France;
- Regional and Environmental Center for Central and Eastern EU – REC, Hungary;

## 1 FARMER ORGANISATION

- Confederazione Generale dell'Agricoltura italiana - CONFAGRICOLTURA, Italy



**21 partners from 10 Countries**

# Project results



emphasisproject.eu

- **Initial analytical framework on pest management challenges and opportunities** (DPSIR model);
- **learning platform**: forum for knowledge exchange;
- **pheromone puffer** for semiochemical use in insect pest management (technology, patent).

*achieved*

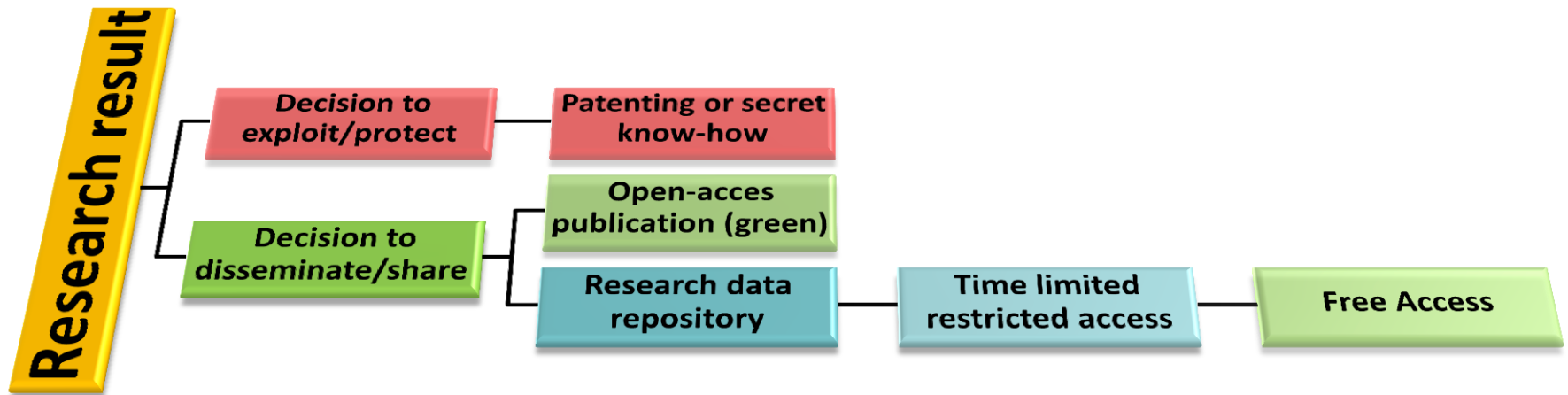
- Resistant varieties (ash, wheat) (month 32);
- 20 validated LAMP kits for specific pest detection (month 36);
- new BCAs screened (month 36);
- priority pest risks identified (month 40);
- early detector network of sentinel plots (month 42);
- forecasting scheme for stem rust epidemics on wheat (month 42);
- 2 mini-barcodes (1 for fungi, 1 for insects) for surveillance (month 46)
- IPM protocols (month 38-48);
- sanitation and eradication procedures (month 46).

*in progress*

# Plan for exploitation of results



emphasisproject.eu



A dedicated project body, the **Intellectual Property Use and Dissemination Committee (IPUDC)**:

- ✚ advice on IP management,
- ✚ review the exploitation strategy,
- ✚ establish guidelines/rules for exploitation.

# Main Impacts



emphasisproject.eu

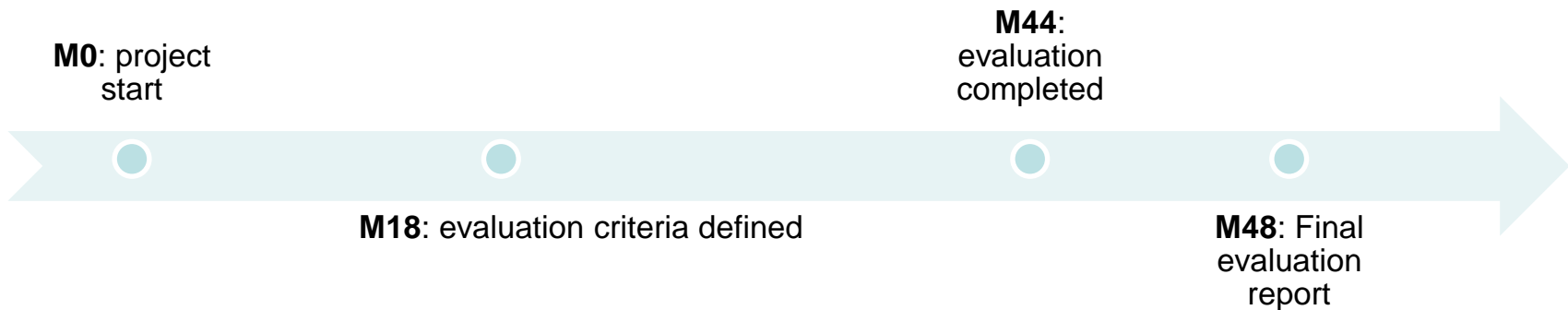
|                          |   |
|--------------------------|---|
| <b>Scientific impact</b> | <ul style="list-style-type: none"><li>• effective solutions for the prevention and management of pests and IAS;</li><li>• development of science-based tools for improving the productivity and resilience of agriculture and forestry in the context of changing environmental conditions;</li></ul> |
| <b>Societal impact</b>   | <ul style="list-style-type: none"><li>• scientific support to the development of relevant EU and International policies;</li><li>• impact on a range of agricultural and forestry production and risk management practices;</li></ul>   |
| <b>Economic impact</b>   | <ul style="list-style-type: none"><li>• significant economic gains/avoided losses for the European agriculture and forestry;</li><li>• increased product quality and lower environmental impact.</li></ul>  |

# Impact measure



emphasisproject.eu

A dedicated task **(T1.3): evaluation framework** for project outputs



Areas to cover:

- **Relevance:** are the selected solutions what is needed (taking into account the broader context)?
- **Effectiveness:** is there a positive impact (in line with the objectives)?
- **Efficiency:** are the objectives being achieved cost-effectively?
- **Added value:** what is the advantage of developing the selected solutions, and of EMPHASIS?
- **Coherence:** how do the selected solutions fit with other actions?
- **Sustainability:** are any positive impacts sustainable in the long term?



# Dissemination channels



emphasisproject.eu

**THE GOAL**  
The overall goal is to reduce a European food security system and the protection of biodiversity and ecosystem services while developing integrated solutions of response measures comprising practical solutions to help people, prevent and protect agriculture and forestry systems from native and alien pests/diseases.

**EMPHASIS**  
Effective Management of Pests and Harmful Alien Species: Integrated Solutions

The project has been funded under the European Union's Horizon 2020 research and innovation programme under grant agreement No 634219.

Activities includes the development of the **project website**, **media campaign** (social medias accounts, press releases), **leaflets**, **posters**, **scientific workshops**, **technical and scientific publications** (self-archiving – open access), **summer schools** and the development of a **multimedia education toolkit**.

ISSUE 01 September 2015

**EMPHASIS news**  
Effective Management of Pests and Harmful Alien Species: Integrated Solutions

- EDITORIAL Page 2
- EMPHASIS IN FOCUS Page 3
- PROJECT TRAININGS AND MEETINGS Page 4
- UPCOMING EVENTS Page 5
- WP NEWSFEED Page 6-7

The project has been funded under the European Union's Horizon 2020 research and innovation programme under grant agreement No 634219.

Leonardo

TGR LEONARDO DEL 04/01/2016

LEONARDO

AGROINNOVA  
MARIA LODOVICA GULLINO

TGR

LA STAMPA TORINO

Un meeting internazionale per battere gli "alieni" a tavola

Sono arrivati da 10 Paesi in 44 ricercatori, professori, produttori di composti agricoli e di strumenti tecnologici - per dichiarare guerra agli "alieni". Ciok batteri e parassiti nocivi - dall'altra parte del mondo, e scienziati in questa, che piantazioni di basilico della glo-

Planta di basilico

Con Agroinnova rete internazionale per fronteggiare le emergenze

Settimanale

Data 07-05-2015

Pagina 2

Foglio 1

2015 APS Annual Meeting August 24-25 Pasadena, California, U.S.A

Crossroads in Science

BERLIN 2015

IPPC

XVIII. International Plant Protection Congress  
Mission possible: food for all through appropriate plant protection

24-27 August 2015 • Berlin (Germany)

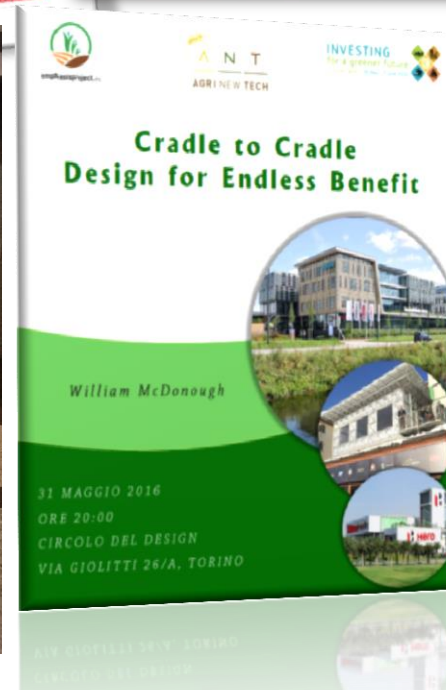
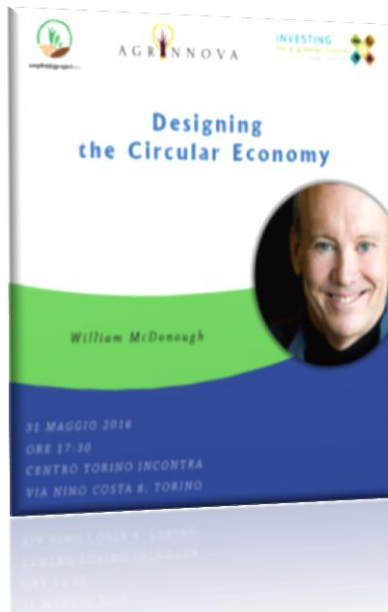
DFG | IRL | APIS



# Communication activities



emphasisproject.eu



# Measures to ensure uptake by end users



emphasisproject.eu

## Effective involvement of stakeholders through multi-actor approach

All stakeholders

Wider audience

WP stakeholders

Scientists (WP2/3)

Task 1.2 Learning Platform

Task 1.4 Decision-making

Task 1.1 DPSIR Framework

Task 1.3 Evaluation Framework

### Learning Platform



### Stakeholders' dialogue (workshops)

EMPHASIS Survey on the Management of Threats to Plant Health

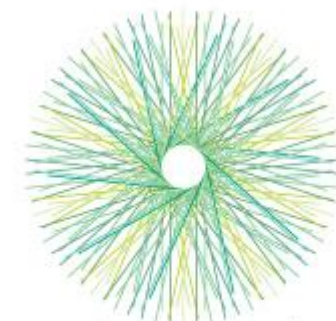
1. Please choose your language

- English
- Français
- Deutsch
- Español
- Italiano

Next

Powered by  
SurveyMonkey

### Surveys with end-users



eip-agri  
AGRICULTURE & INNOVATION

### Links with EIP-AGRI

# Lessons learnt (so far)



emphasisproject.eu

## Main success factors

- genuine involvement of stakeholders since proposal preparation;
- focus on users' needs.

## Benefit from the participation in a EU-funded project

- generation and acquisition of knowledge in leading-edge research;
- exposure to new perspectives, ideas and approaches from other internationally established academic organizations, as well as from private sector;
- potential business opportunities (spin-offs, SMEs);
- innovation with real impact on society.

## Further research needs

- risks relating to the interplay between pathogens, hosts and the environment, and our inability to influence particular high risk pathways;
- need for a whole-system view to be taken (One Health concept);
- risks assessment beyond existing or known pathogens.



**THANK YOU FOR YOUR ATTENTION!**



**Thanks!**