

## EU Framework Programme funded research in the Plant Health and Plant Protection area

Brussels, 11 December 2012



**F**ood, **A**griculture and **F**isheries, and **B**iotecnology

Knowledge-Based Bio-Economy (KBBE)

European Commission  
DG Research &  
Innovation

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Scientific Officer, E4

## Theme 2: Food, Agriculture, Fisheries, Biotechnology – the “KBBE”



### KBBE - Activity 2.1

Sustainable production and management of biological resources from land, forest and aquatic environments



### KBBE - Activity 2.2

“Fork to farm”: Food (including sea-food), health and well being



### KBBE - Activity 2.3

Life sciences, biotechnology and biochemistry for sustainable non-food products and processes

## FP7 Projects on Issues of Plant Protection and Plant Health Concern (1)

- *Risk assessment*

PRATIQUE (3M), ISEFOR (3M), REPHRAME (3M), SharCo (3M)

- *Diagnostics*

QBOL (3M), Q-Detect (3M), TESTA (3M)

PRATIQUE (3M), ISEFOR (3M), SharCo (3M)

- *Specific plant-pathogens interactions*

REPHRAME, pine wood nematode SharCo (3M), Plum Pox virus  
PALM PROTECT (3M), *Rhynchophorus ferrugineus* Olivier and  
*Paysandisia archon* Burmeister

- *Research coordination*

EUPHRESKO II- ERA-NET (1M)

## FP7 Projects on Issues of Plant Protection and Plant Health (2) Concern

- *IPM practices, pesticides*  
PURE (9M), CO-FREE (3M), OSCAR (3M), TEAMPEST (2.3M)
- *Plant Health projects with IPM approaches to control pest(s)*  
SharCo (3M), REPHRAME (3M), PALM PROTECT (3M)
- *Breeding projects (resistance breeding, biological control)*  
Fruit Breedomics (6M), EU-Berry (3M), INNOVINE (6M)
- *Production systems*  
EUPHOROS (3M), OSCAR (3M), VALORAM (3M), INNOVINE (6M)

# PRATIQUE: Enhancements of Pest Risk Analysis Techniques

- 15 Partners from 10 countries
- Approx 2,8M EU contribution

[www.pratiqueproject.eu](http://www.pratiqueproject.eu)

Coordinator:  
[Richard.Baker@fera.gsi.gov.uk](mailto:Richard.Baker@fera.gsi.gov.uk)

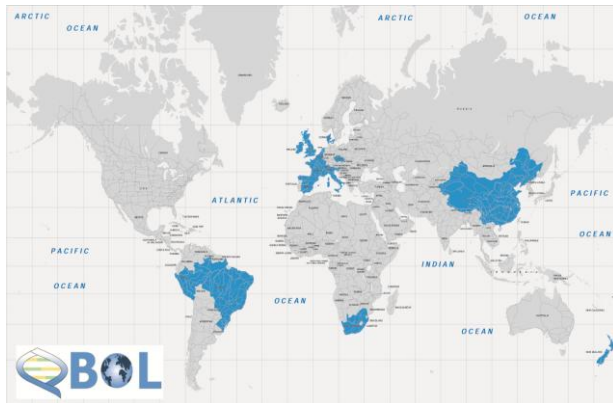


PRATIQUE has addressed the major challenges for pest risk analysis (PRA) in Europe:

- to assemble the datasets required to construct effective PRAs valid for the whole of the EU
- to conduct multi-disciplinary research that enhances the techniques used in PRA
- to ensure that the PRA decision support scheme is fit for purpose, efficient and user-friendly (CAPRA)

## QBOL: Development of a new diagnostic tool using DNA barcoding to identify quarantine organisms in support of plant health

- 20 partners (universities, research institutes and phytosanitary organizations) in 15 countries
- Approx 3M € EU contribution



[www.qbol.org](http://www.qbol.org)

Coordinator:  
[peter.bonants@wur.nl](mailto:peter.bonants@wur.nl)

## QBOL Objectives

- to DNA barcode relevant Q-organisms + morphologically and/or taxonomically related organisms
- to develop a database of DNA barcode sequences plus relevant taxonomic/geographic/host data
- to develop a DNA bank for the selected set of Q-organisms + morphologically and/or taxonomically related organisms



# SHARCO

SHARKA CONTAINMENT IN VIEW OF EU-EXPANSION



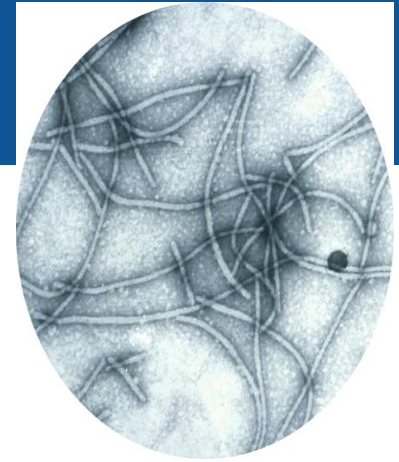
- 17 partners 11 European countries and associated countries

- Approx 3M EU contribution

[www.sharco.eu](http://www.sharco.eu)

Coordinator:  
[decroocq@bordeaux.inra.fr](mailto:decroocq@bordeaux.inra.fr)





## What is the sharka disease ?

- The pathogen = A virus named *Plum pox virus* (**PPV**)
- Host plants = Stone fruit trees (*Prunus spp.*)  
**Peach, Apricot, Plum trees, rootstocks and  
ornamentals**



Transmission by **grafting** (long distance)  
and **aphids**, locally



SharCo project focused on risks associated with Sharka disease by providing with tools such as:

- Plum pox virus (PPV) resistant plant materials
  - Marker-assisted selection of PPV resistant fruit tree varieties
  - Assessed innovative biotechnological approaches to broaden resistance to PPV in different fruit tree species by identifying new mechanisms and sources of resistance to PPV
- Developed novel and highthrough-put detection methods (database, virus collection)
- Guidelines for endusers and policy makers concerning cultivation and risk management, early warning system, and a decision-support



## Q-DETECT: Developing quarantine pest detection methods for use by national plant protection organizations (NPPO) and inspection services

- 14 partners (universities, research Institutes, international organisation, companies) from 9 countries
- Approx 3M € EU contribution



[www.q-detect.org](http://www.q-detect.org)

**Coordinator:**

[neil.boonham@fera.gsi.gov.uk](mailto:neil.boonham@fera.gsi.gov.uk)

Consortium aims to develop detection methods for quarantine plant pests and pathogens on innovative chemical, acoustic, remote imaging and pest trapping technology

Mixture of established and experimental technologies



Multi-funnel (MF)



Cross-vane (CV)



# THE FUTURE

## WP2013

- 1) Topic on biological control agents for agriculture and forestry 9M
- 2) Topic on fruit pests and pathogens (*Drosophila suzukii* and other quarantine pests and pathogens) 6M
- 3) CSA-CA on reference collections and diagnostics databases of Plant Health concern 0,5 M
- 4) ERA-Net on IPM (including 'minor uses') 2M

## HORIZON 2020 .....

# COORDINATION

EUPHRESKO II ERANET on European Phytosanitary Research  
Coordination

SCAR CWG on Integrated pest management for the reduction of pesticide  
risks and use

ERANET on IPM (including 'minor uses')

JPI – "Food Security, Agriculture and Climate Change"

## USEFUL WEB LINKS

Participant Portal: <http://ec.europa.eu/research/participants/portal/page/home>

Cordis: [http://cordis.europa.eu/home\\_en.html](http://cordis.europa.eu/home_en.html)

HORIZON 2020: [http://ec.europa.eu/research/horizon2020/index\\_en.cfm](http://ec.europa.eu/research/horizon2020/index_en.cfm)

BIOECONOMY: <http://ec.europa.eu/research/bioeconomy/>



European Commission  
**RESEARCH - Food, Agriculture and Fisheries, and Biotechnology**

European Commission > Research & Innovation > Bioeconomy

European Bio-Based Economy

Food Agriculture & Forestry Fisheries & Aquaculture Biotechnology

European Bio-Based Economy News & Events Policy Funding Innovation International Cooperation Projects E-library Press

**Research in Food, Agriculture and Fisheries, and Biotechnologies**

The bio-based economy encompasses the full range of ecosystems – land and sea resources, biodiversity and biological materials (plant, animal and microbes), processing, and consumption. It includes the agriculture, forestry, fisheries, food, biotechnology and chemical industry sectors but also contributes to the sustainable growth and production of food, feed, energy and renewable materials and to the development of rural and coastal areas. Already today, the bio-based economy is a very important sector of the economy providing growth and employment to millions. In 2009, it was estimated to be worth 2 trillion Euros in annual turnover derived only from biotechnology related activities alone and provided 20 million jobs.

Read more...

**SME Corner**  
Small and medium sized enterprises (SMEs) get increased support under Food Agriculture, Fisheries and Biotechnology Theme  
Discover a wide range of possibilities!

**Knowledge Transfer as a key tool of innovation**  
3-4 May 2011 Budapest  
Bookshop

**News**

- 06-05-2011 | Agriculture & Forestry Seminar on Non tariff measures impacts – Discover results of the EU-funded project NTF-MEAC
- 05-05-2011 | Fisheries & Aquaculture Interested in sustainable fisheries
- 29-04-2011 | Fisheries & Aquaculture Discover the updated catalogue of Marine related Projects

**Events**

- 24-05-2011 - 27-05-2011 | Bio-economy Our participation in the Green Week 2011
- 04 & 05-05-2011 | Food Transition towards sustainable food consumption and production in a resource constrained world (SCAP Foresight conference)