European Research Programmes in Support of Plant Health

Jean-François MALJEAN
European Commission
DG Research
Directorate E: Biotechnologies, Agriculture, Food

EFSA meeting on PRA
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This presentation shall neither be binding nor construed as constituting a commitment by the European Commission
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Cooperation – Collaborative research

10 Themes

1. Health
2. Food, Agriculture, Fisheries and Biotechnology
3. Information and Communication Technologies
4. Nanosciences, Nanotechnologies, Materials and new Production Technologies
5. Energy
6. Environment (including Climate Change)
7. Transport (including Aeronautics)
8. Socio-Economic Sciences and the Humanities
9. Space
10. Security

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1. Health 6.050
2. Food, Agriculture, Fisheries and Biotechnology 1.935
3. Information and Communication Technologies 9.110
4. Nanosciences, Nanotechnologies, Materials and new Production Technologies 3.500
5. Energy 2.300
6. Environment (including Climate Change) 1.900
7. Transport (including Aeronautics) 4.180
8. Socio-Economic Sciences and the Humanities 610
9. Space
10. Security

* Council’s agreement of July 2006

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2. Food, Agriculture, Fisheries and Biotechnology

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

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

2.3. Life sciences, biotechnology and biochemistry for sustainable non-food products and processes
Some major trends/ challenges affecting the Bio-economy

1. Changing patterns in world trade:
   - globalisation
   - CAP reform
   - consumer-led production

2. Coping with climate change:
   - spread of plant diseases
   - new varieties/crops
   - coping with unpredictability
   - water issues
   - soil degradation

3. Feeding the increasing world population:
   - 6.5 bn in 2005 ⇒ 8.3 bn in 2030
   - increasing calorie consumption per capita
   - rising meat demand – up 70% by 2030

4. Increasing environmental considerations:
   - minimizing further agricultural land use
   - habitat protection
   - maintenance of biodiversity

5. Shifts in energy supply:
   - higher costs of fossil fuels/scarcity
   - security of supply
   - CO₂ reduction

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<table>
<thead>
<tr>
<th>Project Acronym</th>
<th>Project Instrument</th>
<th>Project Title</th>
<th>Project Start Date</th>
<th>Project End Date</th>
<th>EU contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEVELONUTRI</td>
<td>STP</td>
<td>Development of High Throughput Approaches to Optimise the Nutritional Value of Crops and Crop-Based Foods</td>
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<tr>
<td>ENVIRFOOD</td>
<td>SSA</td>
<td>Environment friendly food production system: requirements for plant breeding and seed production</td>
<td>1/10/2004</td>
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<td>REPCO</td>
<td>STP</td>
<td>Replacement of Copper Fungicides in Organic Production of Grapevine and Apple in Europe</td>
<td>1/11/2003</td>
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<td>2E-BCAS IN CROPS</td>
<td>STP</td>
<td>Enhancement and Exploitation of Soil Biocontrol Agents for Bio-Constraint Management in Crops</td>
<td>1/01/2004</td>
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<td>CLEANFRUIT</td>
<td>STP</td>
<td>Improving the quality of European Citrus &amp; Fruit by developing Medfly SIT technology so it can be widely applied in Europe</td>
<td>1/01/2004</td>
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<td>HAIR</td>
<td>STP</td>
<td>Harmonized Environmental Indicators for Pesticide Risk</td>
<td>January 2003</td>
<td>March 2007</td>
<td>1.677.196</td>
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<td>PORTCHECK</td>
<td>STP</td>
<td>DEVELOPMENT OF GENERIC 'ON SITE' MOLECULAR DIAGNOSTICS FOR EU QUARANTINE PESTS AND PATHOGENS'</td>
<td>1/03/2004</td>
<td>1/03/2007</td>
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<td>SIGMEA</td>
<td>STP</td>
<td>Sustainable introduction of GMO's into European Agriculture</td>
<td>3/05/2004</td>
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<td>EAN-SEABUCK</td>
<td>SSA</td>
<td>Establishment of European-Asian Network for the development of strategies to enhance the sustainable use of Sea Buckthorn</td>
<td>1/08/2005</td>
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<tr>
<td>GRAIN LEGUMES</td>
<td>IP</td>
<td>New Strategies to Improve Grain Legumes for Food and Feed</td>
<td>10/02/2004</td>
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<td>IRRRIQUAL</td>
<td>STP</td>
<td>Sustainable orchard irrigation for improving fruit quality and safety</td>
<td>15/04/2005</td>
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<td>DIABR-ACT</td>
<td>SSA</td>
<td>Harmonise the strategies for fighting Diabrotica virgifera virgifera.</td>
<td>1/06/2006</td>
<td>1/06/2008</td>
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## Our contribution to Plant Research - FP6 Projects

<table>
<thead>
<tr>
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<tr>
<td>BIOACTIVE-NET</td>
<td>SSA</td>
<td>Assessment and dissemination of strategies for the extraction of BIOACTIVE-NET compounds from tomato, olive and grape processing residues</td>
<td>1/06/2006</td>
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<td>REBECA</td>
<td>SSA</td>
<td>Regulation of Biological Control Agents</td>
<td>1/06/2006</td>
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<td>BIODET</td>
<td>SSA</td>
<td>Networking in the application of biosensors to pesticide detection in fruits and vegetables</td>
<td>1/06/2006</td>
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<td>PROTECTOR</td>
<td>STP</td>
<td>Recycling and upgrading of bone meal for environmentally friendly crop protection and nutrition</td>
<td>1/03/2005</td>
<td>1/09/2008</td>
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<td>MAC-OILS</td>
<td>SSA</td>
<td>Mapping and Comparing Oils</td>
<td>1/09/2006</td>
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<td>EUROMEDCITRUSNET</td>
<td>SSA</td>
<td>Safe and High Quality Supply Chains and Networks for the Citrus Industry between Mediterranean Partner Countries and Europe</td>
<td>1/10/2006</td>
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<td>FOOTPRINT</td>
<td>STP</td>
<td>Functional Tools for Pesticide Risk Assessment and Management in Europe</td>
<td>1/01/2006</td>
<td>1/01/2009</td>
<td>1.209.762</td>
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<td>EUROCROP</td>
<td>CA</td>
<td>Agricultural Research for Improving Arable Crop Competitiveness</td>
<td>1/05/2006</td>
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<td>CO-EXTRA</td>
<td>IP</td>
<td>GM and non-GM supply chains : their CO-EXistence and TRAceability</td>
<td>1/04/2005</td>
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<td>ORWINE</td>
<td>STP</td>
<td>Organic viticulture and wine-making: development of environment and consumer friendly technologies for organic wine quality improvement and scientifically based legislative framework</td>
<td>1/02/2006</td>
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<td>TRANSCONTAINER</td>
<td>STP</td>
<td>Developing efficient and stable biological containment systems for genetically modified plants</td>
<td>1/05/2006</td>
<td>1/05/2009</td>
<td>4.170.000</td>
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<td>ALTERBROMIDE</td>
<td>CA</td>
<td>Dissemination Of Sustainable Alternatives To Methyl Bromide</td>
<td>1/09/2006</td>
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<td>SAFIR</td>
<td>STP</td>
<td>Safe and High Quality Food Production using Poor Quality Waters and Improved Irrigation Systems and Management</td>
<td>1/10/2005</td>
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<td>META-PHOR</td>
<td>STP</td>
<td>Metabolomic Technology Applications for Plants, Health and Outreach</td>
<td>1/10/2006</td>
<td>1/10/2009</td>
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<td>MICRO-MAIZE</td>
<td>STP</td>
<td>Management of plant-beneficial microbes to balance fertiliser inputs in maize monoculture</td>
<td>1/11/2006</td>
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<td>FARMSEEDOPORTUNITIES</td>
<td>STP</td>
<td>Opportunities for farm seed conservation, breeding and production</td>
<td>1/01/2007</td>
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<td>PEPEIRA</td>
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<td>Pepino mosaic virus: epidemiology, economic impact and pest risk analysis</td>
<td>1/02/2007</td>
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<td>BIOEXPLOIT</td>
<td>IP</td>
<td>EXPLOITATION OF NATURAL PLANT BIODIVERSITY FOR THE PESTICIDE-FREE PRODUCTION OF FOOD</td>
<td>1/04/2005</td>
<td>1/04/2010</td>
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<td>HEALTHGRAIN</td>
<td>IP</td>
<td>Exploiting bioactivity of European cereal grains for improved nutrition and health benefits</td>
<td>1/06/2005</td>
<td>1/06/2010</td>
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<td>RHIBAC</td>
<td>STP</td>
<td>Rhizobacteria for reduced fertiliser inputs in wheat</td>
<td>1/01/2007</td>
<td>1/07/2010</td>
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<td>ENDURE</td>
<td>NOE</td>
<td>European Network for the Durable Exploitation of crop protection strategies</td>
<td>1/01/2007</td>
<td>1/01/2011</td>
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<tr>
<td>EU-SOL</td>
<td>IP</td>
<td>High Quality Solanaceous Crops for Consumers, Processors and Producers by Exploration of Natural Biodiversity</td>
<td>1/05/2006</td>
<td>1/05/2011</td>
<td>18.700.000</td>
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</tbody>
</table>

**TOTAL > 130MEuro = almost 20% of the total budget of FP6-FQS**

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Our contribution to Plant Research - FP7 Projects
FIRST CALL: KBBE-2007-1

Development of more efficient risk analysis techniques for pests and pathogens of phytosanitary concern

One proposal selected in June 2007:

- **Acronym:** PRATIQUE
- **Full title:** Enhancements of Pest Risk Analysis Techniques
- **Co-ordinator:** Central Science Laboratory (UK)
- **Number of partners:** 15
- **Duration:** 39 months
- **Expected max. EC contribution:** ca. 2 750 000 euro
- **Tentative expected starting date:** beginning of 2008

**The project in a nutshell:**

- 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 decision support scheme for PRA meets its purpose is efficient and user-friendly.
Our contribution to Plant Research - FP7 Projects
FIRST CALL: KBBE-2007-1

Containment of Sharka virus in view of EU-expansion

One proposal selected in June 2007:

- **Acronym:** SHARCO
- **Full title:** Enhancements Sharka Containment
- **Co-ordinator:** INRA (FR)
- **Number of partners:** 13
- **Duration:** 48 months
- **Expected max. EC contribution:** ca. 2,950,000 euro
- **Tentative expected starting date:** beginning of 2008

**The project in a nutshell:**

- In the field of epidemiology, develop new methods for monitoring and fighting the PPV spread
- In the field of biology, develop new genetic tools for selection in view of improving resistance of plants cultivated in orchards
- In the field of agricultural management, help the end-users to take advantage of the project outcomes.
Our contribution to Plant Research - FP7 Projects
FIRST CALL: KBBE-2007-1

External costs of pesticides

One proposal selected in June 2007:

- **Acronym:** TEAMPEST
- **Full title:** Theoretical Developments and Empirical Measurement of the External Costs of Pesticides
- **Co-ordinator:** Aristotle University of Thessaloniki (GR)
- **Number of partners:** 10
- **Duration:** 36 months
- **Expected max. EC contribution:** ca. 2 250 000 euro
- **Tentative expected starting date:** beginning of 2008
- **The project in a nutshell:**

  • to develop a consolidated methodological framework comprised of detailed qualitative and quantitative analytical tools, in order to identify external costs of pesticide use and to study the development of policy instruments that lead to sustainable pesticide use,
  • to test and validate the proposed regulatory system by applying it in different EU countries, so as to study the feasibility of such alternative regulatory systems.
This Project will build a sustainable diagnostic resource to enable ‘DNA-barcode identification’ ultimatively for all quarantine plant pests or pathogens of statutory importance. Key work will include: obtaining or producing relevant vouchered sequence data for individual pests or pest groups and position them in a correct taxonomic context, developing generic diagnostic tools based on these barcode sequences; linking vouchered sequence information to published biological information; developing strategic approaches and methodologies to enable the establishment of DNA banks and access to digital voucher specimens.

**Funding scheme:** Small collaborative project.

**Expected impact:** The project will significantly help tackle increasing risks to EU plant health from exotic pests linked to increased globalisation of trade in plants/products. It will support better cooperation between EU diagnostic laboratories and potential moves towards reference laboratories by providing central approaches and a standardised and vouchered resource for using DNA/RNA sequence data in diagnostics for quarantine plants pests and pathogens.
"More with less"
• Theme 2 FP7 “Food, Agriculture, Biotechnology” has much broader scope than priority 5 “Food Quality&Safety” of FP6 (added activity 3 on biotech products and processes for non-food applications)
• Research to support policies, international cooperation and coordination of national research is integrated into the themes
• Budget for first calls of theme 2 - FP7 comparable (or lower) than for priority 5 - FP6

Need to prioritise along the following criteria:
• New areas/topics not (little) covered in previous FPs.
• Continue/follow-up on successful EU research activities in order to achieve maximum impact.
• Preparatory actions for identifying priority topics/activity areas for future calls, i.e. analysis of certain research/technology options for addressing specific goals; in cooperation with TPs and ERA-NETs
Our contribution to Plant Research - FP7 Projects
The longer term: 2009 - 2010

A process for priority setting: has already started

- Main Events - Workshops
- Technology Platforms (Plants for the Future)
- EC-Funded projects
- Research Groups and Associations
- Other DGs (ENV, AGRI, SANCO,...)
- Standing Committee on Agricultural Research (SCAR)
- ERA-Nets
- Other Stakeholders (consumers, farmers,...)

Comments

Proposes

Ideas

Formal decision process (consultation of other DGs)

Publication

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Our contribution to Plant Research - FP7 Projects
The longer term: 2009 - 2010

Criteria for priority setting

- Fits into the Specific Programme
- Justification (timely, needed, relevant, …)
- Expected impact
- Source(s)
- Budget availability
- European added value + subsidiarity principle
- Complementary to other initiatives
Theme 2-specific requirements and some general aspects of importance

- Specific participation rule for Specific International Co-operation Actions (SICAs):
  
  2 + 2 (or more if specified – may also target countries or regions)

- Funding thresholds (to be regarded as an eligibility criterion!):
  
  - small Collaborative Projects: up to 3 M€
  - Coordination and Support Actions: up to 1 M€

- One project per topic is funded

- Participation of international organisations and participants from third countries possible (and encouraged) in addition to minima