PROJECT FINAL REPORT

Grant Agreement number: 266505

Project acronym: EUPHRESCO-II

Project title:

DEEPENED AND ENLARGED COOPERATION BETWEEN PHYTOSANITARY (STATUTORY PLANT HEALTH) RESEARCH PROGRAMMES

Funding Scheme: COORDINATION ACTION (ERA-NET)

Period covered: from 1st January 2011 to 31st March 2014 (39 months)

Name of the scientific representative of the project's co-ordinator, Title and Organisation:

Dr Alan Inman
Scientific Adviser
Defra (Plant Health Evidence and Analysis)
Tel: 0044 (0)1904 406653
Fax: 0044(0) 1904 462111
E-mail: alan.inman@defra.gsi.gov.uk

New Project Website Address: www.euphresco.net (archive at www.euphresco.org)
2.2. Aims and Objectives of EUPHRERSCO-II (2011-2014)

Compared with the first EUPHRESCO Project (2006–2010), EUPHRESCO-II’s objectives and outcomes can be summarised to highlight how EUPHRESCO-II will deepen and enlarge the cooperation, as follows:

<table>
<thead>
<tr>
<th>Factor</th>
<th>EUPHRESCO I</th>
<th>EUPHRESCO II</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Partner countries</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td>No. of Full Partners</td>
<td>23</td>
<td>31</td>
</tr>
<tr>
<td>No. of European Observers</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>No. of International Observers</td>
<td>0</td>
<td>2 (USDA; CABI)</td>
</tr>
<tr>
<td>European and International Coverage and Context</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Some key countries missing and some regions under-represented</td>
<td></td>
<td>Key countries added (Partners &amp; Observers); expand regions</td>
</tr>
<tr>
<td>• Some sectors under represented (e.g. forestry)</td>
<td></td>
<td>4 of 6 EUPHRESCO-I Observers now Partners in EUPHRESCO-II</td>
</tr>
<tr>
<td>• Little international dimension</td>
<td></td>
<td>More forestry representation</td>
</tr>
<tr>
<td>• Increased exploration of international dimension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expert Advisory Bodies</td>
<td>EC SANCO; EPPO; EFSA</td>
<td>EC SANCO; EPPO; EFSA</td>
</tr>
<tr>
<td>Total Funds Coordinated</td>
<td>€15 M€ur</td>
<td>€17 M€ur *</td>
</tr>
<tr>
<td>% Annual Funds For Trans-national Projects</td>
<td>ca.8% (in 2008 pilots)</td>
<td>≥10%</td>
</tr>
<tr>
<td>Type of Trans-national Research</td>
<td>Pilot Projects</td>
<td>Projects</td>
</tr>
<tr>
<td>Research Project Criteria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All partners involved in each round (learning-by-doing)</td>
<td></td>
<td>All partners involved in annual rounds of topic identification</td>
</tr>
<tr>
<td>• Short length (12–18 months)</td>
<td></td>
<td>No constraints on project length or funding mechanisms</td>
</tr>
<tr>
<td>• All 3 funding mechanisms</td>
<td></td>
<td>Meeting policy/science needs</td>
</tr>
<tr>
<td>• Meeting policy/science needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rounds of Projects Per Year</td>
<td>2 rounds in 4 years</td>
<td>Annual round of joint projects</td>
</tr>
<tr>
<td>Mapping National Programmes</td>
<td>Retrospective (to make the ‘inventory’ of the current research programmes)</td>
<td>Retrospective &amp; forward looking (to match the national research programmes)</td>
</tr>
<tr>
<td>Long-term, Durable Network</td>
<td>Model structure and <em>modus operandi</em></td>
<td>Tested, refined final structure &amp; MO</td>
</tr>
</tbody>
</table>
The ambitions reflected above in EUPHRESCO-II’s General Objectives can be expressed and formalised into the following verifiable indicators and success criteria:

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Verifiable indicators and success criteria</th>
</tr>
</thead>
</table>
| **To implement, test and refine the proposed long-term, self-sustainable Network structure and modus operandi** | • Network Management Structure and *Modus Operandi (MO)* from EUPHRESCO-I implemented.  
  • Evaluations and refinements of the structure & MO.  
  • Self-sustainable network at the end of the project.  
  • Annual mapping of national research plans.  
  • Updated common strategic research agenda and action plans.  
  • Updated EUPHRESCO toolbox.  
| **To deepen the coordination and collaboration through trans-national research projects** | • Annual identification of trans-national research topics.  
  • Trans-national research projects with sufficient finance (≥10% of total national budgets per year) commissioned.  
  • All previous EUPHRESCO-I Partners involved in funding trans-national research projects during EUPHRESCO-II.  
  • Research increasingly involving new Partners (80% target); more support for regional & EU-wide plant health issues.  
| **To deepen the coordination and collaboration through improved trans-national processes and tools** | • Improved technical possibilities (platforms and processes) for operating the virtual phytosanitary ‘market place’ developed and implemented.  
  • Barriers to trans-national research more explicitly determined and addressed at national levels.  
  • Strategy and processes for quickly initiating trans-national research to react to emergency plant health problems  
  • Improved links to key stakeholders, i.e. DG SANCO/SCPH, EPPO; EFSA.  
  • New approaches for delivering trans-national research explored (at least one new approach tested in a research project, e.g. clustered projects; fellowship scheme).  
| **To enlarge the Network cooperation**                                             | • Workshops held to explore increased regional collaboration.  
  • Workshops to explore increased collaboration in the forestry plant health area.  
  • At least 3 Observers, or others, become full Partners.  
  • At least 3 additional national bodies become Observers from Europe or third countries (at least one Mediterranean).  
  • Opportunities explored for increased international cooperation (workshops; reports and analysis; at least one research project involving a third country). |
3. **Handover Ceremony at the EUPHRESCO Governing Board Meeting (25 March 2014)**

**Handover of the ‘Baton’**  
Christina Steveni (EUPHRESCO)  
Baldissera Giovani (EPPO)

**Handover of the Modus Operandi**  
Silke Steinmöller (EUPHRESCO)  
Martin Ward (EPPO)

**Handover of EUPHRESCO Art Work to EPPO – ‘EUPHRESCO Deployed’…!**
WORKPACKAGE 2 – Implementing, testing and refining the long-term self-sustainable network structure
The top three primary topic areas covered with regard to crops were related to potatoes (Solanaceae), fruit crops and forestry, whereas the major secondary topic area was diagnostic methods.
EUPHRESCO II – Funded topics per (primary and secondary) topic area

As new collaboration mechanisms both regional and crop related workshops and topic related workshops were carried out successfully.
**WP3 Implementation of joint research activities**

Please note that the sources for the results outlined in this chapter are the final topic lists of the rounds. Please also be aware of the project status update information.

<table>
<thead>
<tr>
<th>Year of round</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of topics</td>
<td>10</td>
<td>17</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>Used mechanisms (scheduled)</td>
<td>NC, Mixed NC/VP</td>
<td>NC, Mixed NC/VP, VP, RP</td>
<td>(Expected: NC, pot. Mixed)</td>
<td>All available</td>
</tr>
<tr>
<td>No. of these topics using the non-competitive route</td>
<td>6</td>
<td>10</td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>No. of these topics using competition (RP/VP/mixed mechanism)</td>
<td>4</td>
<td>7</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Number of partner/observer involved (participation in topic-funding)</td>
<td>21 partner 1 observer</td>
<td>21 partner 1 observer</td>
<td>11 partner</td>
<td>26 of 31 partner 1 of 12 obs.</td>
</tr>
<tr>
<td>Number of countries involved</td>
<td>17</td>
<td>17</td>
<td>9</td>
<td>21 of 22 partner countries + 1 obs.</td>
</tr>
<tr>
<td>Number of total funding activities (research participation)</td>
<td>81</td>
<td>81</td>
<td>17</td>
<td>179</td>
</tr>
<tr>
<td>Total amount of decided funds</td>
<td>2.708.607 €</td>
<td>3.607.300 €</td>
<td>523.000 €</td>
<td>6.838.907€</td>
</tr>
<tr>
<td>Number of Topic Coordinators</td>
<td>6</td>
<td>8</td>
<td>3</td>
<td>14 diff. persons/organisations</td>
</tr>
</tbody>
</table>

**EUPHRESCO II - Results of three rounds transnational research initiation activities**

- 5 EUPHRESCO II partner did not have any funding activities (BE-FPS, CZ-MZe, FR-INRA, GR-BPI, UK-FR)
- 2 EUPHRESCO II partner countries did not have any funding activities of any of their partner organizations (CZ, GR)
WORKPACKAGE 4 – Deepening through improved processes and tools for transnational cooperation
WP5: Enlarging the Network Cooperation

A comparison of the Partner (light grey) and Observer (dark grey) coverage by country in the previous EUPHRESCO-I project and in EUPHRESCO-II project.

**EUPHRESCO I:**

**EUPHRESCO II:**

**EUROPEAN PARTNER & OBSERVER COUNTRIES**
# Performance Against Indicators of Success

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Success Criteria</th>
<th>Outcome - March 2014</th>
</tr>
</thead>
</table>
| **1. Implement the Network**  
Implement, test and refine the proposed long-term, self-sustainable EUPHRESCO network structure and modus operandi | **Network Management Group (NMG)** Structure and modus operandi (MO) from EUPHRESCO-I implemented. | NMG and MO implemented in EUPHRESCO-2 |
<p>| | Annual evaluations and refinements of the network structure and modus operandi (reported &amp; changes made) | MO evaluations completed; Final MO signed-off by Governing board; Impact Evaluation completed, informing the future Network |
| | Self-sustainable network at the end of the project | EPPO has become the Coordinator and Secretariat (2-year interim). MO produced and agreed. DG-SANCO co-financing discussed, e.g. at COPHS EU Council Working Party |
| | Annual mapping of national research plans to match national programmes | In part only – improvements may be possible via EPPO in future |
| | Updated common strategic research agenda | Minor updates; fuller review required in 2015. E.g. reflecting on the New EU Plant Health Regime, and PH being part of a continuum: exclusion-mitigation-adaptation-resilience) |
| | Updated EUPHRESCO toolbox | New tools developed (including on-line tools) and Toolbox updated |</p>
<table>
<thead>
<tr>
<th>Objectives</th>
<th>Success Criteria</th>
<th>Outcome - March 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. <strong>DEEPEN</strong> the coordination and collaboration through <strong>TRANS-NATIONAL RESEARCH PROJECTS</strong></td>
<td>Annual identification of trans-national research topics involving all Partners (lists of topic ideas reported to EC)</td>
<td>1(^{st}) round of topics (10 projects funded) 2(^{nd}) round of topics (17 projects funded) 3(^{rd}) round of topics (3 topics identified and now being implemented as per the EUPHRESCO-II timetable)</td>
</tr>
<tr>
<td></td>
<td>Trans-national research projects with sufficient finance (≥10% of total national budgets per year) commissioned</td>
<td>1(^{st}) Round: €2.7M (of ca. €17M) = 15% 2(^{nd}) Round: £3.6M (of ca. €17M) = 20% 3(^{rd}) Round: £0.5M (of ca. £17M) = 3% Total all Rounds: £6.8M (of ca. €54M) = 12%</td>
</tr>
<tr>
<td></td>
<td>All Previous EUPHRESCO-I Partners involved in funding transnational research projects in EUPHRESCO-II</td>
<td>All previous countries involved in resourcing at least one transnational research project.</td>
</tr>
<tr>
<td></td>
<td>Research projects increasingly involving <strong>New Partners</strong> (80% target, by end of project) and increasingly supporting regional plant health issues as well as EU-wide issues</td>
<td>Yes. Nearly all new partners involved in 1(^{st}) round of topics (84%) Opportunities for regional cooperation explored through workshops and facilitated through wider EUPHRESCO membership.</td>
</tr>
</tbody>
</table>
### Objectives

**3. DEEPEN the coordination and collaboration through improved trans-national PROCESSES & TOOLS**

<table>
<thead>
<tr>
<th>Success Criteria</th>
<th>Outcome – March 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved technical possibilities (platforms and processes) developed and implemented</td>
<td>On-line topic-round tools developed and used</td>
</tr>
<tr>
<td>Barriers to trans-national research determined (report) and addressed at national levels</td>
<td>Report on barriers produced; some examples of changes in national processes. Real Pot still difficult</td>
</tr>
<tr>
<td>Strategy and processes for quickly initiating trans-national research to react to emergency plant health problems (analysis of failures to respond; new process in toolbox)</td>
<td>Progress and processes limited. Projects on new problems; not highly responsive (e.g. Kiwi PSA; Epitrix; Zebra-chip; Drosophila)</td>
</tr>
<tr>
<td>Improved links to key stakeholders, i.e. DG SANCO/SCPH, EPPO; EFSA (formalised links in Terms of Reference of stakeholder bodies; communication means formalised)</td>
<td>EPPO directly linked as a Partner and long-term Coordinator. EU-SANCO/COPHS engaged with EUPHRESCO advice on Plant Health priorities for the EU Research Programme. Opportunities for industry engagement through the new EU Plant Regime (stakeholder forum) and improved national-level interactions</td>
</tr>
<tr>
<td>New approaches for delivering trans-national research explored (at least one new approach tested in a research project, e.g. clustering; fellowships)</td>
<td>Clustering of national projects (CEP Project on Current and Emerging Phytophthoras); Pilot Fellowship Scheme (PHELLOWs) from Real Pot; Mixed funding models used</td>
</tr>
<tr>
<td>Objectives</td>
<td>Success Criteria</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>4. <strong>ENLARGE the Network cooperation</strong></td>
<td>Workshops held to explore increased regional collaboration</td>
</tr>
<tr>
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<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Workshops to explore increased collaboration in the forestry plant health area</td>
</tr>
<tr>
<td></td>
<td>At least 3 Observers, or others, become full Partners.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>At least 3 additional national bodies become Observers from Europe or 3rd countries (at least 1 Mediterranean)</td>
</tr>
<tr>
<td></td>
<td>Opportunities explored for increased international cooperation (workshops; reports and analysis; at least one research project involving a third country)</td>
</tr>
<tr>
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</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Impact, Dissemination Activities and Exploitation

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5. Further Information

Websites

www.euphresco.net

The EUPHRESCO ERA-Net is now hosted via the European Plant Protection Organisation (EPPO/OEPP) and future queries should be addressed to EPPO.

www.eppo.org

Contacts for the New EUPHRESCO ERA-Network

Baldiserra Giovani (Network Coordination and Secretariat): baldiserra.giovani@eppo.int

Martin Ward (Director General): martin.ward@eppo.int

European and Mediterranean Plant Protection Organization (EPPO/OEPP)
21 Boulevard Richard Lenoir 75011 PARIS
FRANCE
Tel: + 33 (0) 1 84 79 07 46
Fax: + 33 (0) 1 70 76 65 47
Web: http://www.eppo.int

Contacts in Relation to this Final Report

Dr Alan Inman (EUPHRSCO-I and -II Coordinator): alan.inman@defra.gsi.gov.uk

Dr Christina Steveni (EUPHRESCO-II Project Office): christina.steveni@fera.gsi.gov.uk
Annex 2: EUPHRESCO Impact Assessment

EUPHRESCO Impact Assessment and Analysis

Laura Meagher
(Technology Development Group) &
Stephen Hunter
(Petergarth Pathways)

May 2014
ABSTRACT

This report sets out the findings of an impact assessment and analysis of the EUPHRESCO ERA-NET which operated between 2006 and 2014. The aim of the ERA-NET was to improve co-operation and co-ordination of national phytosanitary research programmes at the EU level through the networking of research funding activities.

The approach was to use a mixture of methodologies including a questionnaire, workshops and document analysis in order to explore a variety of perspectives to assist in identifying impacts whilst also shedding light on structure, governance and processes. Identification of impacts used a conceptual framework of five types of impact (Instrumental, Capacity building, Conceptual, Attitudinal or cultural, Enduring connectivity).

Forty three respondents completed an online questionnaire which used a combination of Lickert scale, pre-coded and free text response modes. The questionnaire covered structure and governance, delivery of aims and objectives, costs and benefits, role of the Secretariat and impacts as well as asking for suggestions about how to enhance the future development of EUPHRESCO. Details of the responses are given in the report and were used in structuring two workshops one at the EUPHRESCO Final Dissemination Meeting in Paris and a separate one in London which specifically took a UK perspective and is reported on in detail elsewhere. Workshop attendees participated in identifying impacts of various types and in considering how EUPHRESCO goals could be achieved in the future; these are summarised.

In general there was strong support for the structure of EUPHRESCO and its governance which was seen to have facilitated significant advances in international networking and research collaboration in the phytosanitary arena. A significant number of impacts and impacts-in-progress were identified by participants and a range of recommendations made regarding future development of the network in its post ERA-NET phase.

The report draws a number of key conclusions and makes some recommendations for the future.

INTRODUCTION

1. EUPHRESCO (2006-2014) is an EU-funded ERA-NET which aims to increase co-operation and co-ordination of national phytosanitary (statutory plant health) research programmes at the EU level through the networking of research funding activities. EUPHRESCO I was funded from 2006-2010 and EUPHRESCO II was funded from 2011-2014. It aims to continue as a self-sustaining network of European phytosanitary research funders with the European Plant Protection Organisation (EPPO) hosting a secretariat. The network has expanded from the original 23 partners in 17 countries to 31 partners in 22 countries with 12 European Observer countries and two International Observers.

2. The authors of this report have been commissioned to carry out an evaluation of the EUPHRESCO network. This is included as an element of Work Package 2 of EUPHRESCO II with the
aim of informing the structure and *modus operandi* of the long-term network and maximising future benefits and impacts from its activities. The aim of this impact assessment is to identify actual and potential benefits and impacts of EUPHRESCO and how these might be improved in the future.

**APPROACH AND METHODOLOGY**

**Overall Approach**

3. Our approach to impact assessments is that they should be useful. Thus we have aimed not only to provide an assessment of impact to date but also to gather insights that can be useful for the future. We have drawn upon our own extensive experience with: evaluation of non-academic impacts, analysis of organisational processes and our understanding of EUPHRESCO and its aims.

4. In this evaluation we triangulated our findings by seeking a variety of perspectives, thus helping to identify diverse and even subtle impacts and impacts-in-progress, whilst also shedding light on structure, governance and processes. We have addressed a set of key questions with a mixed portfolio of methodologies: document analysis, questionnaires and workshops. Integrative analysis underpins this final report.

**Conceptual Model**

5. We have adapted our usual conceptual model which:

- Considers research impact to be function of the interaction between the contents of the research, the context for its application and the processes for user engagement.

- Takes account of the processes and flows of knowledge, expertise and influence across a web of networks and relationships.

**Questionnaire**

6. As part of Task 1 we designed a questionnaire, with others’ input, that we sent to EUPHRESCO partners and an appropriate set of observers and other key relevant parties. Disseminated through the online system provided by Survey Monkey, the questionnaire was carefully designed to be concise, straightforward and accessible, using a mix of Lickert scale, pre-coded and free text response modes. The responses to this questionnaire form the basis of our analysis and helped to focus the design of subsequent workshops. A copy of full questionnaire will be placed on the EUPHRESCO website [http://www.euphresco.net/](http://www.euphresco.net/). It encompassed the following aspects:

- The structure and governance of the two ERA-NETS (EUPHRESCO I and II), with possible implications for future governance. Did this provide sufficient flexibility to
meet changing circumstances? Did it allow the appropriate participation of partners?

- The delivery of the various aims and objectives: did EUPHRESCO achieve what it set out to? To what degree were any success criteria met?

- Views on the costs versus perceived benefits of participation in EUPHRESCO.

- What was the role of the Network Secretariat and how did it add value? What learning has implications for EPPO’s future Secretariat role?

- How well has knowledge exchange worked in EUPHRESCO – both internally but also with external stakeholders and beneficiaries?

- How has EUPHRESCO made a difference? What, if anything, has changed in policymaking as a result of the programme - both in terms of research policy (i.e. transnational coordination and development of European-level research agendas/strategies) and actual plant health policy (and its implementation)? Are there indications of influence on innovation in science and/or innovation in terms of effective deployment of science, through novel funding mechanisms or types of collaboration? What effect has it had on various levels/types/scales of networking within the European phytosanitary community? Has it helped the better integration of science and policy both within participating countries and between them?

- What sort of impacts were participants expecting? What types of impact have been seen - Conceptual, Instrumental, Capacity building, Enduring Connectivity or Attitude/Culture change?

- Are there any impacts-in-progress that can be identified and perhaps enhanced through future development of EUPHRESCO?

- What suggestions might enhance future development of EUPHRESCO?

7. The questionnaire was first issued in December 2013 and respondents were given multiple reminders and encouraging emails, extending the deadline date. The survey was formally closed on 3 February 2014. Analysis contributed to the EUPHRESCO Final Dissemination Meeting (27 March 2014, Paris), as well as a Defra-sponsored workshop (24 February 2014, London).

8. By the time of the survey’s closure, we had received 43 responses, out of the 91 personal invitations sent. We were pleased that the respondents thus represented nearly half (47.3%) of the invitees. There was a good distribution of respondents, from 24 countries and 33 organisations. Three quarters of the respondents were Members of a Project/Network Management Group and one quarter were Members of the Governing Body.

21
Workshops

9. For Task 2, we conducted a carefully designed and facilitated workshop immediately following the EUPHRESCO Final Dissemination Meeting, 27 March 2014, Paris. A small group of invited participants allowed for a spread of perspectives and capacity for informed critical reflection on the impacts and achievements of EUPHRESCO as well as any issues that needed addressing. Using both the findings from the questionnaire and relevant documentation of outputs from EUPHRESCO I and II, we encouraged participants to discuss our initial findings and help us develop recommendations for the future. The Agenda for this workshop is at Annex 1 and the list of participants is in Annex 2. (In addition, participants at the preceding large meeting were invited to identify impacts and issues; these inputs have been included in the analysis.)

10. In addition, we conducted a mini-workshop at the request of Defra, to drill deep into the perspective of one country, the UK. In London on 24 February 2014, key stakeholders provided informed opinion on the impacts of the EUPHRESCO ERA-Net from a UK perspective. The outputs from this workshop are presented in a separate report which will be made available at the website http://randd.defra.gov.uk/ under the project code PH0456.

KEY FINDINGS: PROCESSES & STRUCTURES (Annex 4 for detailed results)

Structure and Governance

11. EUPHRESCO Partners represented key national phytosanitary research funders from the current (EUPHRESCO II) 22 European partner countries as well as 12 Observers from other European Government Bodies and two International Observers. The Programme was administered by a Secretariat and a Governing Board reviewed progress and provided direction. The Programme was divided into Work Packages with six-monthly project meetings. Both the structure of EUPHRESCO I and II and their Governance and Management were regarded as having worked well by over 85% of respondents. Only 4.9% thought that the structure and management added significant barriers or costs to the work with a couple of comments relating to problems with the funding mechanisms.

12. Over 75% of recipients felt that the management was transparent and inclusive although there was a lower but still overall positive view regarding whether there was enough flexibility to handle new emerging issues.

13. Some 21 respondents made free text comments on the strengths of EUPHRESCO’s structure and governance. The emphasis was on EUPHRESCO’s facilitation of international networking and collaboration across a “range of organisations”. For example:

- “EUPHRESCO was able to improve collaboration between partners from north/south and east/west which were impossible by other EU channels”.

EUPHRESCO was seen as helping foster phytosanitary co-operation both within and between individual countries:
“Scientists and participants from different countries and regions were able to express their phytosanitary views, suggestions and concerns and provide information on issues that appear at a country level. Articles and publications derived from EUPHRESCO topics are extremely useful to scientists”.

“EUPHRESCO contributes to a close co-operation of its member countries and provides useful tools to jointly approach phytosanitary problems which are of wider interest for several countries”.

Such co-operation as well as EUPHRESCO’s structure and management was seen to make a difference and made it possible to “react quite promptly to emergent phytosanitary issues”. “Links to plant health policy and operations” were seen as a strength “making it responsive to the needs of inspectors and policymakers”. Technical knowledge amongst representatives was praised and EUPHRESCO management was commended for being transparent, well prepared and efficient.

14. In terms of weaknesses 19 comments were received. Several related to uneven degrees of effort. For example:

- “Success depends very much on the willingness to work of some few members of the core group”.

Some mention was made of administrative burdens, particularly for the co-ordinator and one comment was that it would have been better to have had a full-time co-ordinator at the secretariat.

Some respondents discussed tensions occurring between national and international prioritisation. For instance, there can be “difficulties in overcoming national rules for research, consortium financing”. “National supported projects means - bottom up - national driven and financed: before coordination takes place this has already been approved and rewarded.”

There is also a tension between the priorities placed on research versus efforts to influence policy:

- “EUPHRESCO’s structure and/or governance was mainly research oriented than policy oriented. ERA-NETs must find a balance between research activities and policy advising activities.”

- “It is difficult to engage inspectorate and policy end users in governance, and for them to prioritise research co-ordination over more immediate calls on their time. Success was therefore heavily reliant on a few individuals who could bridge the gaps between researchers, commissioners and users of research.”

One respondent suggested that:
The process to launch calls for scientific projects and the evaluation of proposals is rather time consuming, thus jeopardising the original aim of EUPHRESCO to tackle emerging phytosanitary problems in a short timeframe.”

Role of Secretariat

15. There was an understanding of the multiple activities carried out by the EUPHRESCO Secretariat. The perception of the importance of these roles varied and the number of respondents regarding them as of high importance were:

- Organisation of EUPHRESCO network meetings/ conferences 81.6%.
- Co-ordination of partners 68.4%.
- Communications 63.2%.
- Financial co-ordination 51.4%.
- Liaison with external organisations 47.4%.

Overall between 89.2% - 97.4% saw all these functions as being as either of high or medium importance.

16. There was signification variation over the perceived effectiveness of different elements of the commissioning process for EUPHRESCO projects:

- Frequency of calls (79% strongly agreed/agreed this was effective).
- Topic identification process (71%).
- Online management process (60.5%).
- Size of calls (51.4%).
- Suitability of funding mechanisms for transnational research (44.7%).

17. When respondents were asked the question, “Were there important roles that the Secretariat did not perform at all or did not perform well?”, at least nine took the opportunity to say that there were not any such roles e.g., “No” or “None”, even “No, the Secretariat is perfect!” “My experience was that the Secretariat worked hard at trying to support the partners and good communication.”

18. Perhaps half a dozen respondents offered critical comments concerning the Secretariat and/or some EUPHRESCO processes. Two mentioned surveillance:

- “There was a lack of overall surveillance, especially in cases where projects did not go according to plan”.

The processes around calls elicited some comments:
“The Secretariat performed well, the only thing that was missing, was a real competitive process. Even the pilot call, was only supposed to be competitive, because in the end there was only one project for each call theme.”

Another observed that “the calls were not managed by the Secretariat, only by WP3” and suggested that the Secretariat should be more involved.

Some described a sense of change over time, with one saying that the Secretariat was “best in the beginning” and another going into more detail:

“The Secretariat was distracted from EUPHRESCO towards the end of EUPHRESCO II because of other calls on their time from their national administration. There is perhaps a lesson that it is best to base international co-ordination within an international organisation where it will receive sufficient priority.”

A couple of other responses had to do with timing, suggesting that frequencies and deadlines were sometimes unhelpful.

**Delivery of aims and objectives**

Over 97% of respondents confirmed the importance of the EUPHRESCO objectives. Over 75% agreed that the objectives of (a) Establishing a longterm, sustainable network that strategically facilitates joint transnational activities to underpin EU phytosanitary policy and science capacity and (b) Establishing instruments, tools and processes for transnational phytosanitary research had been met successfully or highly successfully. Only slightly fewer, still over 66% thought the objectives of (c) Developing common research agendas based on shared priorities and (d) Mapping information onto national phytosanitary research programmes had been successfully met.

Over 90% of respondents felt that EUPHRESCO had been successful in Maintaining and building phytosanitary research capability and capacity in Europe, 85% felt that there had been successful Broadening and deepening of research co-ordination between partners and 72.5% felt that EUPHRESCO had been successful in Supporting the development of evidence-based plant health policymaking. Eighty five percent of respondents believed that EUPHRESCO II had strengthened the co-ordination and collaboration that began during EUPHRESCO I. Seventy seven percent of respondents felt that EUPHRESCO had provided value for money.

**KEY FINDINGS: IMPACTS (Annex 4 for detailed results)**

**Types of Impacts, Influences, Impacts-in-progress**

Impacts arising from research and knowledge interchange are famously difficult to a) generate and b) identify with clear attribution of causality. Nonetheless, when respondents were asked for their informed judgments on impacts made by EUPHRESCO, nearly half (46.2%) believed that “EUPHRESCO has had impacts on policymaking in terms of research policy (e.g. transnational coordination and development of European-level research agendas/strategies”). Fourteen even
provided examples of EUPHRESCO’s impacts in this arena. Furthermore, nearly a third (30.8%) believed that “EUPHRESCO has had impacts on policymaking in terms of actual plant health policy and its implementation” – thus moving beyond the research universe itself. Seven respondents provided examples of such impacts.

23. Five categories of impacts (Meagher, 2008) were posed for respondents, who indicated whether or not they saw EUPHRESCO as having contributed to each:

- **Instrumental impacts** (e.g. actual changes in research policy, regulatory policy or practice): 41.1% of respondents Agreed or Strongly Agreed that EUPHRESCO had contributed to this category of impacts – which is recognized widely as being the most challenging category of impacts.
- **Capacity-building impacts** (e.g. training of students or professionals, improved ability to create transnational capabilities): nearly two-thirds, 64.1% see EUPHRESCO as having contributed to this type of impact.
- **Conceptual impacts** (e.g. broad new understanding/awareness-raising): over two-thirds (69.2%) of respondents believe that EUPHRESCO contributed to this type of impact.
- **Attitudinal or cultural impacts** (e.g. increased willingness in general to engage in new collaborations): well over two-thirds (71.8%) of respondents believe that EUPHRESCO has contributed to this type of impact, which in itself generates a basis for further impacts in the future.
- **Enduring connectivity impacts** (e.g. longer-term collaboration by involved individuals in follow-on interactions such as joint proposals, reciprocal visits, shared workshops): more than three-quarters (77%) of respondents believe that EUPHRESCO has contributed to this type of impact - which, along with attitudinal or cultural impacts, acts as a genuine resource towards future change.

24. In summary, EUPHRESCO has made a difference, in no small part by building a sound foundation for the future. Over two-thirds (69.2%) of respondents felt that “EUPHRESCO has had an influence on innovation in phytosanitary science and/or effective deployment of science, by enabling novel funding mechanisms or types of collaboration”. Strikingly, almost every respondent (97.4%) believes that “EUPHRESCO has helped improve networking within the European phytosanitary community”. When aspiring to impacts on the world beyond research, it is very good news that most (79%) respondents believe that “EUPHRESCO has helped improve integration of science and policy within participating countries and/or between them, improving the likelihood of evidence-based policy in the future”.

25. Annex 5 summarises the impacts that workshop participants identified whilst Annex 6 summarises free text examples from the questionnaire.

**Knowledge Exchange (internally and externally)**

26. Knowledge Exchange and communication means the effective sharing of information, understanding and issues - sometimes among EUPHRESCO partners themselves, and sometimes between EUPHRESCO partners and others. Respondents indicated the degree to which they did or did not agree with a set of statements about knowledge exchange.
27. The general picture that emerged is that most found communication to work reasonably well, with usually a third neutral and few if any distinctly negative in their views. For example, most respondents did not find it difficult to communicate problems or issues with other EUPHRESCO partners (61.6% Agreeing or Strongly Agreeing, with 30.8% Neutral). A few more felt that EUPHRESCO partners communicated effectively about practical matters (71.8% Agreeing or Strongly Agreeing, with 25.6% Neutral). Usefully, close to two-thirds (63.1%) felt that “when new phytosanitary challenges emerged, EUPHRESCO partners were able to communicate rapidly to help address the issues”. When it comes to a question of EUPHRESCO partners having “communicated effectively about deeper knowledge and scientific understanding”, a somewhat smaller percentage (58.6%) replied in the positive. In terms of communication channels, two-thirds (65.8%) found that “there were sufficient opportunities for EUPHRESCO partners to meet in person and communicate informally in other ways”. An important resource for future knowledge exchange and indeed collaboration is indicated by the fact that by far most respondents (87.2%) felt that they “now have a greater understanding of the phytosanitary research needs of other European partners”.

28. Knowledge exchange with external stakeholders is becoming an ever-more important goal for EUPHRESCO partners. In the face of this pressure, well over a third (40.5%) Agreed or Strongly Agreed that “EUPHRESCO should have done more to promote two-way exchange of issues and understanding between external stakeholders and EUPHRESCO partners; about the same (43.2%) were Neutral. However, contributions made by EUPHRESCO in its past are often recognised. Half of the respondents (51.3%), for example, felt that EUPHRESCO helped partners improve communication with external stakeholders or beneficiaries. Two-thirds (66.7%) felt that the EUPHRESCO website was an effective communication tool, and three-quarters (77%) believed that “EUPHRESCO has had effective relationships with key external European organisations (e.g. EPPO, EU DG-SANCO, EFSA) and other EU Programmes (e.g. ERA-NETs)”.

LESSONS LEARNED FOR THE FUTURE

29. EUPHRESCO set out with the overall aim of increasing co-operation and co-ordination of national phytosanitary research programmes at the European level through networking of research activities and mutual opening of national programmes. We sought input from both survey respondents and workshop participants as to how this general aim could be furthered in the future. Some 35 respondents to the questionnaire offered one or more recommendations for the future. These can be grouped into a number of broad categories as discussed briefly below.

Contributing to Knowledge Exchange and Impacts on Policy and Practice

31. Many respondents made recommendations related to Knowledge Exchange and impacts. Several re-iterated the issue as it was listed among examples in the question: “Improvement of Knowledge Interchange and communication internally (across partner countries) or externally (with stakeholders)” and several others re-iterated “Helping research to generate impacts on policy or practice”, along with a re-iteration of “balance between applied and more strategic
research”. More specific suggestions related to the potential generation of impacts on policy and practice. There is a strong sense that EUPHRESCO needs to take on a Knowledge Intermediary role, between the generators of research/evidence and those who make what would ideally be evidence-based decisions – in policy and in practice. For example:

- “Make available all outputs generated by transnational consortia to policy makers.”
- “Maintain the very applied approach for the EUPHRESCO initiated projects. Maintain the advisory role of EUPHRESCO to DG-Research, DG-SANCO and COPHS on plant health priorities.”
- “EPPO could play an effective role as a connection point between science and phytosanitary practice.”
- “In the new governance of EPPO's Secretariat - there should be link to EU SCAR and Member States. There is the need to collaborate and exchange knowledge between ministries, funding bodies, laboratories and inspectors. There should be more collaboration between researchers and inspection officers to have more evidence based research/decisions.”
- “Further integration of policy making with research commissioning, to make links between users, funders and providers of research without making additional demands on time for governance. It would be good to see projects which cut across different pests, and which address the more intractable problems facing plant health inspectors and stakeholders. Engaging inspectors and other stakeholders in decisions on research commissioning may be one way of achieving this balance.”

**Addressing challenges**

32. Relating to the goal of research being used, particular mention was made of the importance of rapidly addressing emerging challenges, such as new pests and diseases:

- “Enable structures at the national level for fast reactions to emerging problems.”
- “Create a system of alerts for emerging risks with an adverse event.”
- “Make some funds available to project partners for research projects on dangerous or quarantine pests.”

Again, there is a need for a “Knowledge Intermediary” connecting research and policy/practice:

- “With the future structure where the EUPHRESCO Secretariat will be in closer collaboration with EPPO, EUPHRESCO could be a very important "hub" of knowledge for regulated and non-regulated quarantine pests. That means EUPHRESCO could both perform research on issues directly coming from the EPPO's Alert List and provide feedback on policy.”
Building Capacity

33. Many recommendations had to do with building capacity, in one form or another. There is a sense that there is room for some strategic analysis of what capacity is needed. For example:

- “An inventory at onset of what disciplines are needed and where is the best expertise for this to tackle the problem.”
- “Take a broad perspective which balances the need to maintain critical mass of core capability with the need to introduce fresh thinking and innovative approaches.”

34. Interestingly, interdisciplinary research was singled out for a mention by at least half a dozen respondents, some expanding upon the point:

- “Interdisciplinary research with holistic approaches for risk management strategies.”
- “Interdisciplinary research was not so developed within the EUPHRESCO project. But it could be valuable. This also includes (having) more strategic research topics.”

35. Various dimensions of capacity were noted, including tools and techniques (e.g. “Better integration of developing morphological and molecular tools for taxonomy and diagnostics”, “Improved quantitative analytical techniques”, “Creation of a database”, along with a challenge to see more EUPHRESCO projects published in a scientific or applied journal.

36. Other suggestions involved training. For example:

- “Ability for training of Partners’ scientific personnel in known well-equipped European research centres.”
- “Organisation of training activities for scientists.”
- “Encouraging/equipping young researchers to develop an interest in this area of science.”

37. Several recommendations could be viewed as advancing both human capacity-building and encouragement of transnational collaboration. For example:

- “Calls and exchange of scientists between partners to balance the knowledge on quarantine plant health across Europe; in order to improve reaction by less equipped laboratories to transnational emerging risks.”
- “Opportunities for scientists and/or plant health policy makers to shadow each others’ roles. Short term scientific missions to experience work in other plant health labs, rather than joint projects”.

Encouraging/supporting Transnational Collaboration
38. Not surprisingly, at least a third of the recommendations had to do with encouraging or supporting transnational collaboration. Several re-iterated the listed issue of “identifying and prioritising transnational research and evidence needs”, while others re-iterated “implementing transnational research calls and projects”. Some added detail as to the various roles that could be played:

- “How do we organise it so that national governments are willing to contribute (expertise, money) to a shared EU and not only a national (‘what is in it for me’) problem?”

- “Another role that EUPHRESCO could play would be to advise the Commission to launch (a) Call for proposals within the domain of EUPHRESCO subjects, during the next Framework Programme, and also keep alive the collaboration within the Partners launching competitive calls for proposals, besides the Non-competitive ring tests”.

- “Establishment of smaller groups (of scientists and policymakers) preferably from neighbouring countries that deal with similar phytosanitary issues could assist identifying and prioritising transnational research and evidence needs.”

39. Further collaboration was called for within Europe (e.g. “contributing strongly to the building of EU research strategies and objectives”), but also beyond:

- “Research with third countries is needed, interdisciplinary research.”

- “Communicate and make contact with ‘third countries’ research partners (promotion of EUPHRESCO).”

**Improving Coordination, Management**

40. If transnational collaboration is to be effective, coordination and management must work well; a number of respondents made pragmatic suggestions for the future. Of course, such recommendations would have to be “translated” into the new organisational set-up:

- “It is very important to find a solution for the long-term establishment of the network, e.g. under the EPPO framework.”

- “The aims, objectives and the governance mechanism of "EUPHRESCO III" will have to be adapted according to the current situation; i.e. apart from the funds for the management of the project at the EPPO Secretariat, no additional funds will be available to keep the project going. In a first step the management should be strongly supported to transfer the momentum of the EUPHRESCO II project in "EUPHRESCO III" under the new framework conditions.”

41. There were some concerns about how to manage differences between countries in terms of technical capacity, phytosanitary research infrastructure and expectations. Yet, maintaining
some sort of network, with identification of common aims, is supported. Speed of processes, communication and evaluation arise as foci of recommendations:

- “The timespan to react to new emerging problems with suitable EUPHRESCO research projects has to be reduced by shortening the process of application and evaluation of research proposals.”

- “Needs to be a better follow up and evaluation of the project results in comparison with the project objectives and deliverables identified in the project description. They should be clearly reported so as to be useful for the collaborating partners, and for funders to evaluate the benefit of collaborating.”

42. Management of workload was a topic of concern, as is the organisational set-up of infrastructural support:

- “The actual system is labour-intensive for some partners that take over central roles. This applies for the Network Management Group and especially for the Topic Coordinators. The future structure should aim to reduce the workload of them by the transfer of parts of the work to the central secretariat and by improving the online system in a way that supports the TC/NMG. This will also encourage partners to take over central roles which have a major influence on the success of the whole network.”

And several respondents urged careful consideration of the nature of calls (e.g. competitive or non-competitive) and “further improvement of the processes in commissioning research projects”.

**Recommendations for the future**

43. During the EUPHRESCO workshop in Paris, participants were challenged to make recommendations for the future as to how three types of processes (a-c) could enhance achievement of each of three over-arching EUPHRESCO goals (I-III). Individuals were encouraged to draw upon their learning and insights to make recommendations as to what needed to be modified, initiated or sustained in order to address each goal and generate desired impacts. A summary of the responses is set out in Table 1.
Table 1  Workshop Recommendations for Future EUPHRESCO Processes

<table>
<thead>
<tr>
<th>Goal I. Developing phytosanitary (statutory plant health) research policy at the Europe-wide level.</th>
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<tbody>
<tr>
<td>(a) Structure/Management/Governance (e.g. commissioning of research, co-ordination of research, networking activity)?</td>
</tr>
<tr>
<td>• Acquire the mandate to advise the Commission (DG’s) about plant health.</td>
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<tr>
<td>• Continuing the annual research project initiation round (electronic marketplace).</td>
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<tr>
<td>• Formulate in writing the targets of the research for a 4-year period, a multi-annual research agenda. Example target: a common recognised procedure to perform services at national levels.</td>
</tr>
<tr>
<td>(b) Promotion of innovation (e.g. interdisciplinary research, new forms of Knowledge Exchange)?</td>
</tr>
<tr>
<td>• Programme of fellowships and exchange of researchers.</td>
</tr>
<tr>
<td>(c) Flexibility to address new problems as they emerge?</td>
</tr>
<tr>
<td>• Create an electronic/video/online meeting system and site for demonstrating best practice. Initiate a project for implementation.</td>
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Goal II. Optimising the research provision that underpins European quarantine plant health policy development and implementation, in an era of increasing biosecurity threats from alien plant pests, diseases and invasive species.

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<tr>
<td>(a) Structure/Management/Governance (e.g. commissioning of research, co-ordination of research, networking activity)?</td>
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<tr>
<td>• Implement a more institutional approach to commissioning research projects: timetables, dates for report to reach secretariat.</td>
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<tr>
<td>• Provide network activities with an institutional approach, e.g. modus operandi, eligibility criteria, people in charge of NMG willing to do the additional work.</td>
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<tr>
<td>• Definition of the tasks of the topic coordinator because too many projects are lost due to missing a topic coordinator.</td>
</tr>
<tr>
<td>• Think of new ways to present the tools that had been developed in EUPHRESCO to the funders.</td>
</tr>
<tr>
<td>(b) Promotion of innovation (e.g. interdisciplinary research, new forms of Knowledge Exchange)?</td>
</tr>
<tr>
<td>• Enhance communication with others; improve public relations; develop new tools for public relation flyers.</td>
</tr>
<tr>
<td>• Hold workshops to identify topics with a wider scientific community in order to establish interdisciplinary research.</td>
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</table>
- Include a point in the research calls to tackle broader aspects of projects; include new stakeholders and third countries.

**(c) Flexibility to address new problems as they emerge?**
- Have a faster approach to tackle emerging issues by creating access to special funds that are available without bureaucracy.
- Ensure closer contact and communication with NPPOs and scientists over emerging problems.
- Enhance database to include info on calls for rapid responses to emerging problems.
- Create a database of scientists and laboratories available (infrastructure needed).

**Goal III. Increasing the capacity of European phytosanitary science and research, in order to prevent the disappearance of European expertise in this field and maintain Europe’s competitiveness in the global market.**

**(a) Structure/Management/Governance (e.g. commissioning of research, co-ordination of research, networking activity)?**
- Create a coordinated action plan to safeguard expertise by assigning areas of expertise to Partners and providing funding to coordinate infrastructural organisation.
- Develop and use an EU Reference Laboratory and National Reference Laboratory network for plant health training, diagnostics and collections, perhaps with the opportunity of broadening it beyond the EU.
- Conduct targeted lobbying initiative for large and permanent financial injection from EU into taxonomy and collections (build on Q-collect).
- Have fellowship schemes, formally (real pot) and summer schools.
- Set up academic training in regulatory plant pathology and promote awareness/jobs.

**(b) Promotion of innovation (e.g. interdisciplinary research, new forms of Knowledge Exchange)?**
- Develop phytosanitary economic expertise, including data generation and interdisciplinary work (follow-up PRATIQUE as a permanent capacity/science issue).
- Include interdisciplinarity and education/training elements in project specifications and/or have specific ‘capacity’ calls.
- Create a Marketplace for research calls.

**(c) Flexibility to address new problems as they emerge?**
- Develop a Marketplace for phytosanitary science funding: can be proactive and visible.
More generally, the workshop participants were asked to suggest appropriate EUPHRESCO goals for the next five years. While the input captured below was not sought as a formal consensus, nonetheless the whole group generally voiced a willingness to support these suggestions:

- The development of much more pro-active and effective knowledge exchange so that EUPHRESCO increasingly becomes an information hub for the exchange of information.

- Improved communication of projects, dissemination of results, promotion of knowledge exchange activities.

- The creation of an electronic marketplace for projects.

- That EUPHRESCO has a role in assisting in providing the evidence base for new phytosanitary regulations and their evaluation.

- That the network endures and is sustained through the an increase in the number of countries really convinced by the benefits of EUPHRESCO and making a commitment through financial contributions and by helping attract new partners.

- Further growth of international linkages.

- At least one research project outside Europe.

- Retain visibility and influence; maintenance of role of EUPHRESCO as a benchmark.

CONCLUSIONS

We would draw the following key conclusions from our review of the impact of the EUPHRESCO I and II ERANET:

(a) EUPHRESCO has effectively facilitated the coordination of transnational phytosanitary research across a significant part of Europe and substantially raised the profile of such research amongst scientists, research funders and policymakers and provided enhanced opportunities for interactions between these groups.

(b) EUPHRESCO has facilitated the funding and delivery of a suite of disease specific projects which has fed directly into changes in plant health measures and operational procedures. This included the potential to fund projects relating to emerging threats more rapidly.

(c) There has been the opportunity to ring test existing and new diagnostic methods so that there is now greater confidence in their international use.

(d) Various phytosanitary topic networks of scientists have been established across Europe, some of which have become self-sustaining beyond initial projects.

(e) EUPHRESCO has acted and continues to act as a conduit of influence on the format and content of EU Research Programmes (specifically FP7 and Horizon 2020).
It has created opportunities for researchers and policy makers to make better use of European wide plant health science resources rather than rely solely on their own national capability and capacity.

It provided the opportunity for some development of research capability and capacity for the underpinning of plant health policy in the EU.

The structure and governance of EUPHRESCO was regarded as being generally effective although the Secretariat was clearly stretched at times and much of the project management fell on the shoulders of a few very committed individuals.

A number of funding mechanisms were tested and some partners have changed their own national approaches to funding transnational research as a result.

EUPHRESCO II succeeded in broadening and deepening the cooperation the activities of EUPHRESCO I.

Overall, we believe that EUPHRESCO has successfully achieved its aims and objectives and had a significant impact on phytosanitary research in the EU.

In the future, as EPPO takes on the role of hosting the EUPHRESCO network we recommend that they consider:

(a) How it can become a proactive knowledge exchange hub for the collection and dissemination of research findings across Europe which is accessible to and effectively utilised not only by scientists but also by practitioners, policy makers and stakeholders.

(b) How to develop a funding model whereby there is maximum flexibility for funding ongoing applied research into specific pests and pathogens and, where appropriate, the ability to provide rapid response research to emerging plant health issues.

(c) How to build on the initial mapping work of EUPHRESCO I in order to audit and monitor phytosanitary science capability and capacity across Europe and use EUPHRESCO to sustain and develop it.

(d) How to ensure that EUPHRESCO continues to influence EU thinking on phytosanitary issues and indeed beyond in the wider international arena so that policymakers articulate and accommodate research priorities.

(e) The need to develop some interdisciplinary research approaches.

(f) How to improve the engagement and commitment of EUPHRESCO Partners so that the financial and management load is more equitably spread.

ACKNOWLEDGEMENTS

We wish to acknowledge the contributions of workshop attendees and survey respondents. We are grateful to the EUPHRESCO Secretariat for their help and support during this project.
Annex 1 Workshop Agenda

EUPHRESCO Evaluation Workshop

Paris: 27 March 2014

AGENDA

Goal: To gather perspectives on EUPHRESCO, with a view to future benefits

9:00 Welcome, Objectives, Introductions (Laura Meagher/Stephen Hunter)

10:00 Session 1: Knowledge Exchange & Impact generation in EUPHRESCO

One conceptual framework for considering impacts sets out five types of impact or outcome:

(a) **Instrumental** impacts (e.g. actual changes in policy or practice);
(b) **Capacity building** impacts (e.g. training of students or professionals);
(c) **Conceptual** impacts (e.g. broad new understanding/awareness raising);
(d) **Attitudinal or cultural** impacts (e.g. increased willingness in general to engage in new collaborations across sectors);
(e) **Enduring connectivity** impacts (e.g. longer-term collaboration by involved individuals in follow-on interactions such as joint proposals, reciprocal visits, shared workshops).

Identify any impacts you believe to have been achieved or are in progress. What types of impacts are they? Have they given value-for-money?

For any impacts-in-progress, what sort of help might ensure full development?

11:00 Session 2: Ways of Achieving EUPHRESCO Goals

EUPHRESCO set out with the overall aim of increasing co-operation and co-ordination of national phytosanitary research programmes at the European level through networking of research activities and mutual opening of national programmes. It had three over-arching goals, listed below.

Today, we want to benefit from what we have learned by making recommendations for the future as to ways in which these goals can be achieved—considering three types of processes.

For each **Goal (I-III)**, consider each of three types of **Processes (a-c)** and make recommendations for **what needs to be modified, initiated or sustained** in order to address that goal and generate desired impacts.
EUPHRESCO Goals

**Goal I)** Developing phytosanitary (statutory plant health) research policy at the Europe-wide level;

**Goal II)** Optimising the research provision that underpins European quarantine plant health policy development and implementation, in an era of increasing biosecurity threats from alien plant pests, diseases and invasive species

**Goal III)** Increasing the capacity of European phytosanitary science and research, in order to prevent the disappearance of European expertise in this field and maintain Europe’s competitiveness in the global market.

Types of Processes

(a) Structure/Management/Governance (e.g. commissioning of research, co-ordination of research, networking activity);

(b) Promotion of innovation (e.g. interdisciplinary research, new forms of Knowledge Exchange)

(c) Flexibility to address new problems as they emerge.

Recommendations for the Future:

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Goal III) Increasing the capacity of European phytosanitary science and research, in order to prevent the disappearance of European expertise in this field and maintain Europe’s competitiveness in the global market.

(a) Structure/Management/Governance (e.g. commissioning of research, co-ordination of research, networking activity)?

(b) Promotion of innovation (e.g. interdisciplinary research, new forms of Knowledge Exchange)?

(c) Flexibility to address new problems as they emerge?

12.00 Wrap-up

General discussion: What else should be considered to ensure benefits in the future?

12:30 Adjourn

Annex 2 List of Workshop attendees

Robert Baayen EU Commission (DG-SANCO)
Sylvia Blumel Agency for Health & Food Safety, Austria
Maria Leonora Cruz Instituto Nacional de Investigacao Agraria Veterinaria, Portugal
Alan Inman EUPHRESCO Secretariat
Steen Lykke Nielsen Aarhus University, Denmark
Anabel de la Pena National Institute for Agricultural Research & Food Technology, Spain
Francoise Petter EPPO
Lucca Riccioni Consiglio per la ricerca e la sperimentazione in agricoltura, Italy
Jan Schans Plant Protection Service, Netherlands
Silke Steinmoeller Julius-Kuhn Institut, Germany
Jens-Georg Unger Julius-Kuhn Institut, Germany

Laura Meagher
Stephen Hunter
Annex 3  Survey Findings

(Note: Throughout the analysis, percentages given are based on the number of responses to each particular question.)

Background Information

Q3

Which ONE of the following is the best description of your role/position:

- Researcher/Scientist
- Research Project Manager
- Policymaker
- Operational Management (e.g. Chief Inspector)
- Funder

Q4

If you had a particular role in the structure/governance of EUPHRESCO, please tick below.

- Member of Governing Body
- Member of Project/Network Management Group
Q5

Structure

The structure of EUPHRESCO (I and II) as outlined above, worked well, in general.

Q6

Governance and Management

The Governance and Management of EUPHRESCO (I and II) worked well, in general.
Q7

Barriers

The EUPHRESCO Structure and Management added significant barriers or costs to our work.

Q9

Transparency/inclusivity

EUPHRESCO management was transparent and inclusive.
Q10

*Flexibility*

EUPHRESCO was flexible enough to handle new, emerging phytosanitary issues.

Q13

*Perceived Importance, Network Roles*

<table>
<thead>
<tr>
<th></th>
<th>High importance</th>
<th>Medium Importance</th>
<th>Low Importance</th>
<th># Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisation of EUPHRESCO network meetings and conferences</td>
<td>81.6%</td>
<td>15.8%</td>
<td>2.6%</td>
<td>38</td>
</tr>
<tr>
<td>Co-ordination of partners</td>
<td>68.4%</td>
<td>26.3%</td>
<td>5.3%</td>
<td>38</td>
</tr>
<tr>
<td>Communications</td>
<td>63.2%</td>
<td>31.6%</td>
<td>5.3%</td>
<td>38</td>
</tr>
<tr>
<td>Financial co-ordination</td>
<td>51.4%</td>
<td>37.8%</td>
<td>10.8%</td>
<td>37</td>
</tr>
<tr>
<td>Liaison with external organisations</td>
<td>47.4%</td>
<td>47.4%</td>
<td>5.3%</td>
<td>38</td>
</tr>
</tbody>
</table>
Q14

Perceived effectiveness, elements of commissioning process

For each of the following elements of the process for commissioning EUPHRESCO projects, please indicate your agreement/disagreement with the statement that "This element of the commissioning process worked well".

<table>
<thead>
<tr>
<th>Element</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of calls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topic identification process</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-line management process</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of calls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suitability of funding mechanisms for transnational research</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q16

Perceived meeting of EUPHRESCO goals

In general, EUPHRESCO achieved its aims; it accomplished what it was meant to do between 2006-2013.
Q17

*Perceived importance, EUPHRESCO objectives*

<table>
<thead>
<tr>
<th></th>
<th>High importance</th>
<th>Medium Importance</th>
<th>Low Importance</th>
<th># Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing a long-term, sustainable network that strategically facilitates joint trans-national activities to underpin EU phytosanitary policy and science capacity</td>
<td>71.8%</td>
<td>28.2%</td>
<td>0.0%</td>
<td>39</td>
</tr>
<tr>
<td>Establishing instruments, tools and processes for trans-national phytosanitary research</td>
<td>71.8%</td>
<td>25.6%</td>
<td>2.6%</td>
<td>39</td>
</tr>
<tr>
<td>Developing common research agendas based on shared priorities</td>
<td>71.8%</td>
<td>25.6%</td>
<td>2.6%</td>
<td>39</td>
</tr>
<tr>
<td>Mapping information onto national phyto-sanitary research programmes</td>
<td>43.6%</td>
<td>53.8%</td>
<td>2.6%</td>
<td>39</td>
</tr>
</tbody>
</table>

Q18

*Perceived Success of EUPHRESCO, relative to objectives (N=39)*

<table>
<thead>
<tr>
<th></th>
<th>Highly Successful</th>
<th>Successful</th>
<th>Neutral</th>
<th>Unsuccessful</th>
<th>Highly Unsuccessful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing a long-term, sustainable network that strategically facilitates joint trans-national activities to underpin EU phytosanitary policy and science capacity</td>
<td>33.3%</td>
<td>43.6%</td>
<td>23.1%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Establishing instruments, tools and processes for trans-national phytosanitary research</td>
<td>33.3%</td>
<td>43.6%</td>
<td>20.5%</td>
<td>2.6%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Developing common research agendas based on shared priorities</td>
<td>20.5%</td>
<td>48.7%</td>
<td>28.2%</td>
<td>2.6%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Mapping information onto national phyto-sanitary research programmes</td>
<td>17.9%</td>
<td>53.8%</td>
<td>17.9%</td>
<td>10.3%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
Q19

Perceived Success of EUPHRESCO, relative to Aims (N=40)

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintaining and building phytosanitary research capability and capacity in Europe</td>
<td>17.5%</td>
<td>72.5%</td>
<td>10.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Broadening and deepening research co-ordination between partners</td>
<td>27.5%</td>
<td>57.5%</td>
<td>10.0%</td>
<td>5.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Supporting the development of evidence-based plant health policymaking</td>
<td>10.0%</td>
<td>62.5%</td>
<td>27.5%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Q20

Role of Euphresco II

In my view, EUPHRESCO II (2011-2013) strengthened the coordination and collaboration that began during EUPHRESCO I (2006-2010).
Q21

Perceived Value-for-Money

Overall, EUPHRESCO has provided value-for-money.

Knowledge Interchange

Q22

Communication difficulty

I found it difficult to communicate problems or issues with other EUPHRESCO partners.
Q23

Practical communication

EUPHRESCO partners communicated effectively about practical matters.

Q24

Knowledge/scientific communication

EUPHRESCO partners communicated effectively about deeper knowledge and scientific understanding.
Q25
Rapid Communication

When new phytosanitary challenges emerged, EUPHRESCO partners were able to communicate rapidly to help address the issues.

Q26
Meeting/communicating informally

There were sufficient opportunities for EUPHRESCO partners to meet in person and/or communicate informally in other ways.
Q27

**Understanding of Others’ Phytosanitary Research Needs**

I now have a greater understanding of the phytosanitary research needs of other European partners.

Q28

**Communication with external stakeholders**

EUPHRESCO helped partners improve communication with external stakeholders or beneficiaries.
Q29

Promotion of two-way exchanges

EUPHRESCO should have done more to promote two-way exchange of issues and understanding between external stakeholders and EUPHRESCO partners.

Q30

Relationships with external organisations

EUPHRESCO has had effective relationships with key external European organizations (e.g. EPPO, EU DG-SANCO, EFSA) and other EU Programmes (e.g. ERA-nets).
Q31

**Website**

The EUPHRESCO website was an effective communication tool.

![Pie chart showing responses to Q31](chart1.png)

Q32

**Impacts on research policy**

EUPHRESCO has had impacts on policymaking in terms of research policy (i.e. transnational coordination and development of European-level research agendas/strategies)

![Pie chart showing responses to Q32](chart2.png)
Q34

Impacts on plant health policy

EUPHRESCO has had impacts on policymaking in terms of actual plant health policy (and its implementation).

Strongly Agree
Agree
Neutral
Disagree
Strongly Disagree

Q36

Innovation

EUPHRESCO has had an influence on innovation in phytosanitary science and/or effective deployment of science, by enabling novel funding mechanisms or types of collaboration.

Strongly Agree
Agree
Neutral
Disagree
Strongly Disagree
Q37

Networking

EUPHRESCO has helped improve networking within the European phytosanitary community.

Q38

Integration of science and policy

EUPHRESCO has helped improve integration of science and policy within participating countries and/or between them, improving the likelihood of evidence-based policy in the future.
Non-academic impacts of research can be categorised in different ways; one set of categories is used below. Please indicate whether in your view EUPHRESCO did or did not contributed to any of the following categories of impacts.

- **Strongly Agree**
- **Agree**
- **Neutral**
- **Disagree**
- **Strongly Disagree**
ANNEX 4 Impacts identified by Workshop participants

Instrumental Impacts

- Direct input into the European Union research agenda, which led to the successful inclusion of plant health in Framework Programme 7 and the funding of a number of key plant health projects (e.g. PRACTIQUE, Q-DETECT, Q-BOL, TESTA etc.)
- The development of new diagnostic tests and methodologies (e.g. ANOPLORISK, PEUID).
- The improvement of existing diagnostic tests and their harmonisation and validation through ring-testing.
- The evaluation of different funding mechanisms including non-competitive funding, fellowships and mixed model approaches.
- Changes in Belgian and Scottish funding practice and Denmark changed rules to be part of the real pot funding mechanism.
- EUPHRESCO has contributed towards a more rapid funding of targeted research, some of which has acted as primers to larger scale EU research projects.
- Has increased national support for phytosanitary research in some EU countries.
- There has been a change in the phytosanitary R&D Landscape with EUPHRESCO funding smaller and more pest specific projects complementing the EU Framework programmes funding of larger and more strategic research.
- Coordinated input from partners into research projects has meant more cost-effective use of resources across partners.

Capacity-building impacts

- The whole EUPHRESCO ERANET in itself has acted as a capacity building programme across the EU.
- Improved exchange of experience and knowledge transnationally has led to capacity-building (e.g. through the mutual training of staff between projects in diagnostic tests).
- The Fellowship Scheme will lead to the training of some new scientists and the upskilling of others.
- The development of the new international plant sentinel network including someone directly employed by the project.
- The Summer School (which linked various ERANETs) allowed the exchange of views on approaches to networking.
- EUPHRESCO conferences and workshops have helped build leadership and project management capabilities.

Conceptual impacts

- ERANETs are a new concept to many in the phytosanitary field, particularly to researchers in some institutions, so that they now have more awareness of the potential for transnational collaboration.
• An increased understanding of emerging plant health risks at an EU level rather than just a national level has led to a more co-ordinated approach to dealing with problems (e.g. European-wide ring testing of diagnostic tests).
• New European contacts have allowed access to knowledge and expertise from other countries when not available to national researchers (e.g. knowledge on Phytoplasmas and Pospeviroids now widespread across partners).
• Access to a broader network of experts has stimulated new thinking about the species concepts and the relevance of biological concepts New concepts: species concepts; relevance of biological units and the meaning of “quarantine” (e.g. Dickeya project).
• The PRACTIQUE project involved the inclusion of economists for the first time in plant health risk assessments.
• The opportunity to test different funding mechanisms has led to new transnational approaches to funding research such as the joint funding by the Netherlands and UK of the Fellowship Scheme.

**Attitudinal or cultural impacts**

• A much greater willingness of national governments to become involved in transnational research projects and initiatives, for example by commissioning work in other countries where pests already established (e.g. The funding by the UK of an Epitrix project in Portugal).
• An increased willingness of policymakers to transnational consideration of European wide problems and solutions.
• Improved collaboration between research funders and managers and researchers.
• Collaboration across national boundaries has resulted in much more mutual acceptance of the validity and quality of the work undertaken in different laboratories leading to greater willingness to seek confirmation of results from elsewhere.
• EUPHRESCO has led to some new relationships between academic institutions and NPPO and government science agencies with increased mutual respect.
• More comprehensive ownership of the research programme and its results when undertaken through EUPHRESCO.
• EUPHRESCO network has been built on cooperation, trust and transparency.

**Enduring connectivity impacts**

• The collaborators for some smaller EUPHRESCO projects have gone on to secure funding for larger follow on projects within the EU Framework programmes (e.g. TESTA).
• Some consortia established for EUPHRESCO projects are continuing to operate after the end of the project and looking for funding from elsewhere (e.g. Dickeya consortium and Liberibacter consortium).
• Phytosanitary research across the EU has become has become a ‘permeable membrane’ with the network still spreading and gaining new participants.
• Collaboration between research teams resulting in consolidation of plant health research domain in general.
• Has led to increased networking with new contacts, reactivation of old ones and the strengthening of existing ones. Total is more than the sum of its parts.
Annex 6 Examples of impacts from Questionnaire respondents

Examples of impacts on research policy

About a dozen respondents offered comments on impacts made by EUPHRESCO on policy, particularly research policy. All made mention of the influence of EUPHRESCO on the structure and content of the EU Research Framework Programmes FP7 and Horizon 2020 so that relevant calls included “identifying priorities for plant health research topics”. Other comments included:

- “I believe that EUPHRESCO has strongly contributed to putting plant health on the European-level research agenda.”
- “EUPHRESCO has advised DG-Research and DG-SANCO on plant health priorities for EU Framework Programmes.”

Some comments were made about the influence of EUPHRESCO at the national level:

- “Involvement in EUPHRESCO has led to a re-evaluation of phytosanitary research in our country and an increased spending in this area as a result.”
- “A modification of our national regulations is ongoing so as to allow future participation in funding by our organisation in the transnational calls.”
- “We are going to have a new Agricultural Research Strategy and we will use all the phytosanitary information and knowledge from EUPHRESCO.”

There were examples of transnational communication and cooperation such as:

- “Communication between EUPHRESCO partners about the research conducted in their countries on topics such as biowaste.”
- “At national level EUPHRESCO has made us more aware of capability in other countries, and more able to make use of that capability; for example commissioning research on pests which threaten our plants in the countries where they are present rather than using expensive quarantine facilities in our own country.”

Examples of EUPHRESCO impacts on plant health policy

About half a dozen free text replies were provided. Three observed that specific influences have occurred on policies relative to particular pests or diseases. For example:

- “Information from research projects has informed changes in policy with regard to specific diseases.”
- “Projects dealt with harmful organisms of actual interest in terms of method development/Validation of various diagnostics.”
One suggested an even more substantial conceptual impact:

- “EUPHRESCO projects have typically been small and pest specific, with an impact on detailed policy on specific pests. However, the more important impact has been in encouraging policy makers and inspectors at national and European levels to express their problems in terms of research needs and to influence research programmes (national and EU) to address those needs.”

Other impacts identified included:

- “The results of EUPHRESCO projects are taken into account by the NPPO for identifying phytosanitary priorities and measures.”

- “Research projects carried out under the EUPHRESCO funding mechanisms can contribute to the evaluation of existing phytosanitary regulations. For example the results of the PEKID project (suitability of kiln drying for eliminate pests from wood) gave an incentive to be more critical when proposing kiln drying as a phytosanitary measure.”