

Euphresco: an opportunity for phytosanitary research coordination and funding in the EPPO region and abroad

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The European Phytosanitary Research and Coordination network (Euphresco, www.euphresco.net) is a network of organisations which were initiated as EU funded ERA-NET projects in 2006 and 2010. The goal of the network is to strengthen the networking of research activities carried out at national or regional level and the mutual opening of research programmes. In 2014, having received EU funding twice, Euphresco members decided to continue to work together as a long-term and self-sustaining network. The coordination of Euphresco is now hosted within the European and Mediterranean Plant Protection Organization (EPPO), and in addition to consolidating the network and its procedures, it is also preparing the ground for future developments.

Plants are of vital importance. They contribute significantly to our natural environment and social wellbeing, as well as to the productivity and competitiveness of several commercial sectors. Over the last few years, the rate of introduction and establishment of new and/or previously unrecognised, economically or environmentally damaging plant pests, diseases and invasive species has risen alarmingly. These increased threats to Europe's agriculture, horticulture, forestry and environment can be attributed to increased globalisation in trade and travel and the resulting escalation in volume and diversity of plants and plant products moving into the region from other continents. As an example, the Western corn rootworm *Diabrotica virgifera* was introduced in Europe from North America at the end of the 20th century and spread rapidly in the Danube basin or the red palm weevil *Rynchophorus ferrugineus*, introduced from Asia. Climate change may also result in new pest threats and may amplify the negative impacts of those already present. However, resources for national plant health inspection services and their associated science programmes and research have been decreasing. An erosion of the scientific base supporting plant health was specifically highlighted in the EPPO Madeira Declaration (EPPO, 2004) and more recently echoed, among others, in the review of animal and plant science capability in the UK (Defra, 2014) commissioned by the Government's Chief scientist.

To help meet the challenges of increasing risks from non-native plant pests (including pathogens and invasive alien plants) and decreasing funds and expertise, the European Commission funded a 4 year 3.2 million EUR project called EUPHRESCO (European Phytosanitary Research Coordination). The project began in May 2006 as a consortium of 24 leading organisations in 17 European countries (Fig. 1), each with key roles to play in the funding and shaping of their national phytosanitary (statutory plant health) research programmes. It also involved six observer members who at the time had no defined phytosanitary research programmes. The project was supported by and promoted through an Expert Advisory Group consisting of EPPO, the European Food Safety Authority's (EFSA) plant health panel and the European Commission's Directorate General for Health and Consumer Protection (DG-SANCO) that has policy responsibility for statutory plant health.

EUPHRESCO's overarching aim to increase cooperation and coordination of national phytosanitary research programmes at the EU level was both challenging and groundbreaking, as it had not been attempted previously. This aim was successfully fulfilled through the networking of research activities and the mutual opening of national programmes and enabled its three main strategic objectives to be met:

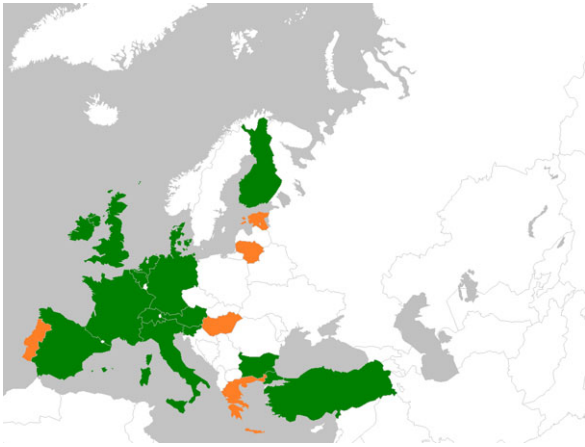


Fig. 1 EUPHRESKO: 24 partners (green) and 6 observers (orange).

- To develop phytosanitary research policy at the EU-wide level;
- To optimise the research provision that underpins EU quarantine plant health policy development and policy implementation;
- To increase the capacity of European phytosanitary science and research, in order to prevent the disappearance of EU expertise.

EUPHRESKO developed, tested and gained expertise in mechanisms, tools and processes for transnational research and, for the first time, delivered true transnational phytosanitary projects. Over its four year life (2006–2010) EUPHRESKO successfully:

- Mapped and analysed the national plant health research programmes of existing partners;
- Developed mechanisms, tools and processes for implementing transnational research;
- Tested three different funding mechanisms (virtual common pot, real common pot, and a novel non-competitive funding mechanism);

- Commissioned 16 transnational pilot projects (Fig. 2)
- Identified barriers to trans-national collaboration
- Coordinated national, trans-national and EU-funded research to optimise research resources and outputs;
- Developed a common research strategy and common research agendas;
- Developed a model long-term network structure and *Modus Operandi*.

In 2010 EUPHRESKO successfully negotiated a further 3 years of EU funding to strengthen the basis for a self-sustainable network, to deepen cooperation through continued transnational research that optimised and improved processes and tools for collaboration and expand the network both in terms of partners and scope. This second project was called EUPHRESKO-2 and ran from 2011 to 2014 and achieved a great deal over its 3 year life, its main successes were:

- Enlarged the network to 31 partners in 22 countries (Fig. 3) with 14 observers (including USDA and CABI) and also enlarged the scope with more forestry representation;
- Facilitated 30 transnational projects (Fig. 4) that met science and policy needs and were worth 6.3 million EUR representing more than 12% of the annual total national budgets for phytosanitary research;
- Tested, refined and produced the final version of the *Modus Operandi* for the long-term network;
- Updated the common strategic research agenda and action plans;
- Developed a strategy and processes for quickly initiating transnational research to react to emergency plant health situations.

The EUPHRESKO-2 EU-funded project came to an end in March 2014 and a final dissemination conference was held in Paris shortly after.

Since April 2014, Euphresco (www.euphresco.net) has become established as a self-funded phytosanitary network

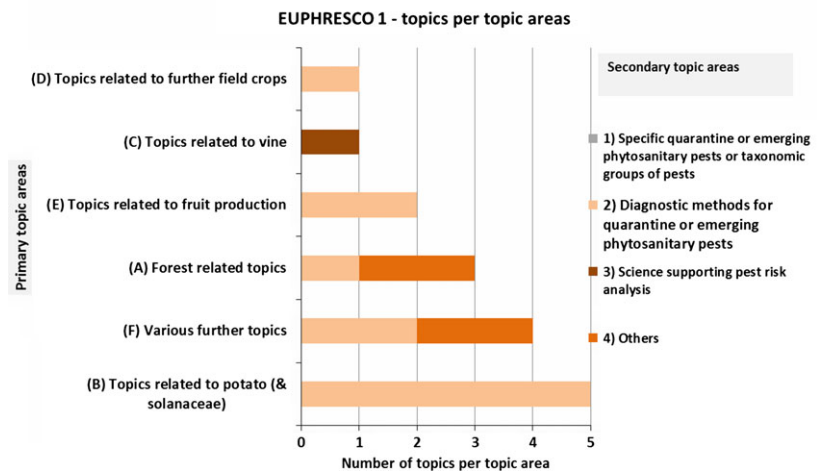


Fig. 2 EUPHRESKO topics and topic areas.

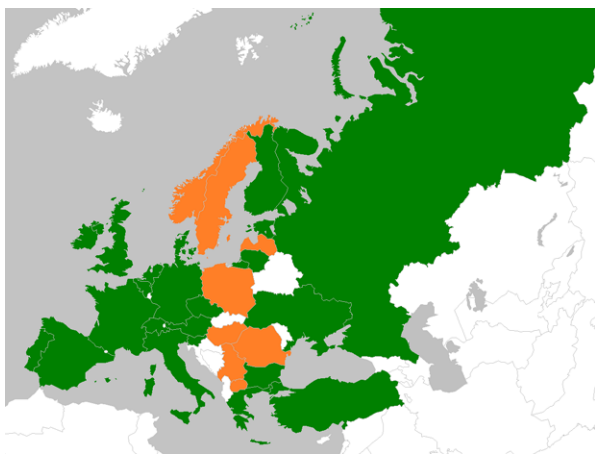


Fig. 3 EUPHRESKO 2: 31 partners (green) and 14 observers (orange). Note, not all observers are shown e.g. CABI and USDA

in Europe supported by its members (Fig. 5) and accountable to them.

Most of the 29 organisations (programme owners and programme managers) who currently are members of the Network, had already participated in the EU funded ERA-NET, but some others are new (i.e. the Ministry of Agriculture of Hungary, the French Agency for Food, Environmental and Occupational Health & Safety, the Ministry of Agriculture of Latvia and the Swedish Board of Agriculture).

The scope and principles under which Euphresco members operate have been defined in the *Modus Operandi*: the long-term Network (as was previously the case for the predecessor ERA-NET) aims to enhance coordination and cooperation on phytosanitary research funding in the Member countries, thereby increasing the benefits from phytosanitary research for all Members. In particular, the outputs of this coordination and cooperation should contribute to:

- Supporting plant health policy development and its implementation in the EPPO region;
- Supporting the maintenance and development of phytosanitary science capability in the EPPO region;

- Optimising and making best use of national funds for plant health research;
- Increasing communication and collaboration amongst Euphresco members and with other countries, relevant phytosanitary institutions and stakeholders on phytosanitary research.

To ensure such contributions, it is essential to identify and prioritise research needs for existing, new or emerging pests or issues of statutory concern that can be addressed through transnational research (Common Strategic Research Agenda). Euphresco members have started to develop a new agenda that will align to the new EU plant health regime currently under discussion (the EU plant health regime should enter into force in 2018).

Although the legislation that underpins phytosanitary policy is determined at EU level, the research that supports the development and implementation of such policy is still conducted to a great extent at national level despite the progress made under Euphresco so far.

Euphresco members have agreed to share information on national research projects and planning between Network members. Mapping of the EPPO phytosanitary area has started, with the goal to identify the main actors (public and private), their expertise, the facilities and other relevant infrastructures and to gather information on funds, research programmes and needs for future collaboration.

The implementation of transnational research projects is another priority of Euphresco, as this allows the sharing of expertise that is disappearing and resources that are decreasing, as indicated by the Madeira Declaration (2004). Members have agreed to coordinate an annual round of calls to fund research projects through competitive and non-competitive funding mechanisms. Discussions are currently underway to identify the topics that are priorities for members in 2015. The transnational funding ensured by Euphresco members is coordinated with the activity of other ERA-NETs such as C-IPM (focussing on integrated pest management) and SUMFOREST (focussing on the sustainable forest management) in order to avoid overlapping and ensure complementarity (when possible) of

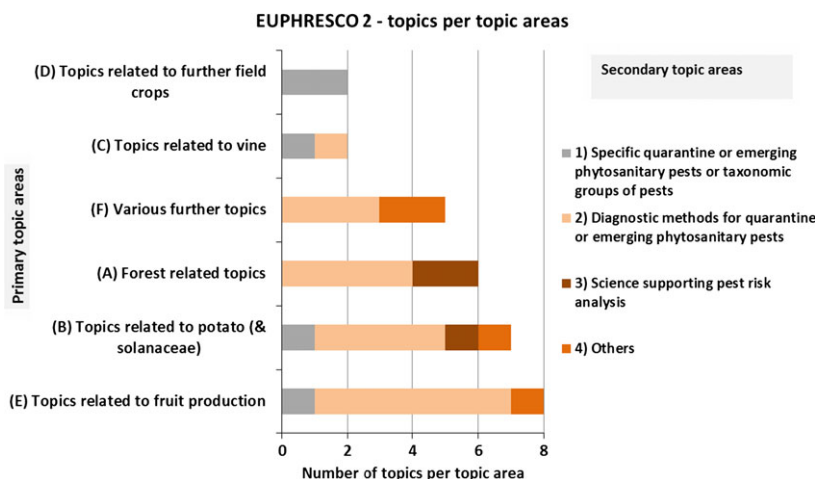


Fig. 4 EUPHRESKO 2 topics and topic areas.



Fig. 5 Euphresco network as of February 27, 2015: 29 members.

research projects funded through the different networks. As the European Commission also participates through its various Framework Programmes (currently H2020) to funding research in the fields of interest for Euphresco members, Euphresco was given the mandate by the Working Party of Chief Officers of Plant Health Services (COPHS) to advise the European Commission on plant health research priorities. This mandate has been renewed and Euphresco will work with the Commission to better define phytosanitary priorities for the bi-annual H2020 work-programmes from 2016 onwards.

The Euphresco coordination is hosted within the European and Mediterranean Plant Protection Organization (EPPO). This cohabitation is perfectly in line with EPPO's activity as an organisation providing support to phytosanitary coordination of its member states; moreover the results produced in the framework of research projects funded through Euphresco are preferentially disseminated to National Plant Protection Organisations (NPPOs) and effectively used, for the development of EPPO Standards. This is the case for the Euphresco funded projects: 'Development and validation of innovative diagnostic tools for the detection of fire blight *Erwinia amylovora*' (Euphresco, 2009), 'Detection and management of the quarantine nematodes *Meloidogyne chitwoodi* and *Meloidogyne fallax*' (Euphresco, 2012) and 'Assessment of the risk posed by ornamentals and tomato seeds infected by *Pospiviroids* to tomato crops and evaluation of *Pospiviroid* detection protocols for seed testing in tomato' (Euphresco, 2014).

Future perspective

Euphresco was initiated as an ERA-NET focussing on European phytosanitary priorities and whose members were European (geographically speaking) countries. The new Network is envisaging to enlarge membership to non-European countries, and contacts have been established with

national and international organisations in (North- and South-) America. The preferential relationship with EPPO will ease the access of EPPO countries which are currently not members of Euphresco, and Euphresco could then become a Network for phytosanitary research coordination and funding having a regional value and positioning itself in a global perspective.

Euphresco: une opportunité pour la coordination et le financement de la recherche phytosanitaire dans la région OEPP et d'autres pays

Le réseau de recherche et de coordination phytosanitaire européen (Euphresco, www.euphresco.net) est un réseau d'organisations qui a été lancé sous forme de projets ERA-NET financés par l'UE en 2006 et 2010. L'objectif du réseau est de renforcer la mise en réseau des activités de recherche menées au niveau national ou régional, et l'ouverture mutuelle des programmes de recherche. En 2014, ayant reçu à deux reprises un financement de l'UE, les membres d'Euphresco ont décidé de continuer à travailler ensemble dans le cadre d'un réseau à long terme et autonome. Le secrétariat de coordination d'Euphresco est maintenant hébergé au sein de l'Organisation Européenne et Méditerranéenne pour la Protection des Plantes (OEPP). Outre la consolidation du réseau et de ses procédures, il prépare aussi le terrain pour de futurs développements.

Euphresco: возможность координации и финансирования фитосанитарных исследований в регионе ЕОКЗР и за её пределами

Европейская сеть фитосанитарных исследований и координации (Euphresco, www.euphresco.net) является сетью организаций, которая была создана для выполнения финансируемых ЕС проектов ERA-NET в 2006 и 2010 гг. Цель сети состоит в укреплении и объединении исследований, проводимых на национальном или региональном уровне, а также во взаимной открытости их программ. В 2014 г., дважды получив финансирование по линии ЕС, члены Euphresco решили продолжить работать сообща в виде долгосрочной и самоподдерживающейся сети. Координация Euphresco теперь осуществляется Европейской и Средиземноморской организацией по карантину и защите растений (ЕОКЗР) и, в дополнение к консолидации сети и ее процедур, способствует также и будущим разработкам.

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