

1. Content of the 'Topic Description' document

1.1. Topic area

Pest risk analysis.

1.2. Topic title

Assessment and prioritisation of pathways.

1.3. Description of the problem the research should solve

Phytosanitary measures aim to prevent the introduction of new plant pests and pathogens. A review of existing EC phytosanitary legislation concluded that it should be replaced (European Commission, 2013). Reports suggest that international horticultural trade and the movement of plants for planting act as significant pathways facilitating the introduction and spread of plant pests (Brasier, 2008; Liebhold *et al.*, 2012). Compared to the previous legislation, the forthcoming EC plant health regulation will have a greater emphasis on the identification and assessment of plants and plant products liable to provide pathways for the introduction of pests into the EU from third countries. The regulation will provide for a more generic approach to risk mitigation of high-risk pathways so that harmful organisms not currently recognised as of significance can be better managed. However, identifying precise pathways is very challenging (e.g. ISEFOR, 2014). Previous studies have characterised potential risk pathways (e.g. Santini *et al.*, 2013; PERMIT, 2014; NOBANIS, 2015). Nevertheless, there remains a need to identify new and emerging horticultural trade and for greater detail regarding the growing and production practices used in third countries so as to assess and hence prioritise those pathways presenting the greatest phytosanitary risks.

The objectives of this project are to: (i) develop international cooperation to identify new and emerging horticultural trade, (ii) fill knowledge gaps regarding current industry practices in exporting countries (iii) develop proposals to overcome existing difficulties in assessing pathways, and (iv) provide options for the systematic evaluation and prioritisation of pathways.

1.4. Description of the expected results

The project is expected to deliver:

- Contribution to international cooperation/networks to identify new and emerging horticultural trade
- A report describing current horticultural growing and production industry practices across key third countries and trading partners, including descriptions of existing pest management systems
- A report of knowledge gaps and technical difficulties that hamper the identification and assessment of pathways, together with options to address such challenges
- Options describing the means for assessing and prioritising pathway risks with the aim of limiting the introduction of plant pests

1.5. Beneficiaries of this research product

Primarily the National Plant Protection Organisations or other official bodies that are responsible for eradication and containment of regulated pests.

1.6. Research funders and research contribution/ distribution

Funding organisation	Research activity and researchers involved
1. Department for Environment Food and Rural Affairs, United Kingdom	-Coordination



<p>Willem Roelofs Willem.Roelofs@defra.gsi.gov.uk</p>	<p>Contact person: Andrew Crowe Andrew.Crowe@fera.gsi.gov.uk</p> <p>Contact person: Vahid Mojtahed</p>
<p>2. Institute for Agricultural and Fisheries Research, Belgium</p> <p>Martine Maes Martine.Maes@ilvo.vlaanderen.be</p>	<p>-The group has developed a tool generating pathway-risk maps for arthropods threatening the food safety in Belgium. This could be of some value when evaluating the possible options related to objective (iv).</p> <p>Contact person: Nick Berkvens nick.berkvens@ilvo.vlaanderen.be</p>
<p>3. Canadian Food Inspection Agency-Plant Research & Strategies, Canada</p> <p>Cheryl Dollard cheryl.dollard@inspection.gc.ca</p>	<p>-CFIA could share information on previously conducted pathway risk assessments and be involved in discussions on how to prioritise pathways and inspection of pathways.</p> <p>Contact person: Andrea Sissons Andrea.Sissons@inspection.gc.ca</p>
<p>4. French Agency for Food, Environmental and Occupational Health & Safety, France</p> <p>Geraldine Anthoine geraldine.anthoine@anses.fr</p>	<p>Contribution to action points (iii) and (iv).</p> <p>Contact person: Charles Manceau charles.manceau@anses.fr</p> <p>Contact person: Emmanuel Gachet emmanuel.gachet@anses.fr</p> <p>Contact person: Christine Tayeh Christine.tayeh@anses.fr</p>
<p>5. Agricultural Research and analysis of the Economy Council, Italy</p> <p>Luca Riccioni luca.riccioni@crea.gov.it</p>	<p>-Provide data and information from Italy. -Collaborate in developing proposals to overcome existing difficulties in assessing pathways.</p> <p>Contact person: Luca Riccioni luca.riccioni@crea.gov.it</p>
<p>6. US Department of Agriculture, Animal and Plant Health Inspection Service, United States of America</p> <p>Laurene Levy Laurene.Levy@aphis.usda.gov</p>	<p>-Expertise in generating different types of pathway analyses (qualitative, semi-quantitative and quantitative) which will help address knowledge gaps and technical challenges in characterizing and prioritizing horticultural pathways. -Expertise in the use of geographic information systems (GIS) and predictive mapping to inform pathway analyses which will help address knowledge gaps and technical challenges in characterizing and prioritizing horticultural pathways.</p> <p>Contact person: Glenn Fowler Glenn.fowler@aphis.usda.gov</p>
<p>7. Agricultural University of Tirana, Albania</p> <p>Magdalena Cara</p>	<p>-Provide data and information from Albania. -Collaborate in developing proposals to overcome existing difficulties in assessing</p>



mcara@ubt.edu.al

pathways.

Contact person: Shpend Shahini
shpend.shahini@gmail.com

1.7. Research project partnership outside Euphresco

Euphresco funding ensures a certain level of transnational collaboration among Euphresco member countries. It is possible, if the funding consortium is interested, to contact funding organisations or research groups outside the geographical area covered by Euphresco members. The Euphresco coordinator could advertise the research topic in order to have an enlarged collaboration. If funders are interested in this possibility, please check the case below:

The funding consortium of the topic mentioned in section 1.2 requires to advertise the topic outside the Euphresco network

Information to sharpen the profile of sought partners could be useful (but not mandatory): country/region (if there are preferences), skills/expertise required, etc.

1.8. Any other relevant information on content

References:

- Brasier, C.M. (2008). The biosecurity threat to the UK and global environment from international trade in plants. *Plant Pathology* 57 (5), 792-808.
- European Commission (2013) Proposal for a regulation of the european parliament and of the council on protective measures against pests of plants. COM(2013) 267 final. 2013/0141 (COD). Brussels, 6.5.2013. http://ec.europa.eu/dgs/health_food-safety/pressroom/docs/proposal-regulation-pests-plants_en.pdf
- Evans, H.F. (2010) Pest risk analysis - organisms or pathways? *New Zealand Journal of Forestry Science*, 40 suppl. S35-S44.
- ISEFOR (2014) ISEFOR (Increasing Sustainability of European Forests: Modelling for Security Against Invasive Pests and Pathogens under Climate Change) Final Report Summary. http://cordis.europa.eu/result/rcn/163906_en.html
- Liebhold, A. M., Brockerhoff, E.G., Garrett, L.J., Parke, J. L. & Britton, K. O. (2012) Live plant imports: the major pathway for forest insect and pathogen invasions of the US. *Frontiers in Ecology and the Environment* 10, 135–143.
- NOBANIS (2015). Invasive Alien Species: Pathway Analysis and Horizon Scanning for Countries in Northern Europe. Norden. Publication no.517. pp232.
- PERMIT (2014) Pathway Evaluation and Pest Risk Management In Transport http://www.cost.eu/COST_Actions/fps/FP1002
- Santini, A., et al. (2013) Biogeographical patterns and determinants of invasion by forest pathogens in Europe. *New phytologist*, 197 (1), 238-250.

2. Euphresco management aspects of the project

2.1. Indication of the topic budget

Funding organisation ^a	Mechanism ^b	Total Budget ^c
1. DEFRA (GB)	NC	€ 15 000
2. ILVO (BE)	NC	€ 1 000
3. CFIA (CA)	NC	€ 2 000
4. ANSES (FR)	NC	€ 15 000
5. CREA (IT)	NC	€ 1 000
6. APHIS (USA)	NC	€ 2 900
7. AUT (AL)	NC	€ 1 000
total		€ 36 000

2.2. Expected duration of the project (only for non-competitive topics)

12 months.

2.3. Any other relevant information on topic organisation and management

A detailed work plan will be made at a later stage but the general set-up of the project will be as follows:

During the first meeting, project partners will present any (ongoing) work at the organisations that is relevant for the topic. Existing approaches how NPPOs (and other organisations) assess pathways and prioritise inspections of pathways and tools developed to quantify pathway risks and generate pathway-risk maps will be evaluated. The emphasis will be on what data is available, how it is collected and data gaps before moving onto technical aspects of assessment and prioritisation. A preliminary classification system to rank pathways according to their perceived risk will be made and further discussed by email and later meetings. The goal is to make use of existing protocols as much as possible and to promote collaboration between EU member states and other countries involved. Existing pathway assessment methods will be shared and discussed and where necessary elaborated; new guidelines may be written.

^a First member is project coordinator. A minimum of two partners are necessary for each proposal. Add lines as needed.

^b Please indicate the preferred mechanism (e.g. real pot RP; virtual pot VP; non-competitive NC), or several mechanisms if there is flexibility.

^c Optional, as this amount can still change in the next phase. In-kind contribution should also be indicated in this column.