

## 1. Content of the 'Topic Description' document

### 1.1. Topic area

Diagnostics, field detection, surveillance

### 1.2. Links to the Euphresco Strategic Research Agenda

The topic addresses the following objective(s) of the 2017-2022 Euphresco Strategic Research Agenda

- Objective 2017-R-4.1: to validate risk-based sampling methodologies for phytosanitary inspections
- Objective 2017-R-4.3: to test and validate the use of volatile organic compounds for early detection and pest management
- Objective 2017-R-6.1: to test and validate methods for in situ detection and identification of pests

### 1.3. Topic title

Developing and assessing surveillance methodologies for *Agrilus* beetles

### 1.4. Description of the problem the research should solve

With the exception of emerald ash borer (*Agrilus planipennis*) there is relatively little information published within the scientific literature on surveillance and monitoring protocols for the wood boring insects of the *Agrilus* genus. However, across Europe and North America there have been scattered trials and research projects undertaken in the past decade, along with anecdotal evidence of current ongoing research programmes that have started to investigate methodologies for capturing and assessing *Agrilus* spp. in a variety of contexts. This proposed Euphresco project would aim to consolidate the European/North American studies that have been conducted, and with collaboration from North American researchers start to develop monitoring tools for either specific *Agrilus* species (e.g. *A. anxius*, *A. bilineatus*, *A. biguttatus*, *A. auroguttatus*) and/or develop a more generic trapping technique for this group of wood boring insects. As well as gathering together the current knowledge on available trapping/monitoring techniques employed for *Agrilus* species, we would encourage collaborators to test trap designs with and without volatile lures in a variety of forest/woodland settings to assess the efficiency and species diversity of captures.

### 1.5. Description of the expected results

- Collated evidence from previous European and North American *Agrilus* species surveillance and monitoring studies
- Progress on designing and evaluating species-specific and generic *Agrilus* trapping techniques
- Validated detection methods to determine specific *Agrilus* species presence; lures and traps will be developed, deployed and assessed to effectively trap invasive *Agrilus* species and allow early detection by deployment at high risk sites.

### 1.6. Beneficiaries of this research product

The project will be of benefit to NPPO's, plant health inspectors, research scientists.

### 1.7. Research funders and research contribution/ distribution

Funding organisation	Research activity and researchers involved
1. Department for Environment Food and Rural Affairs, United Kingdom	-Project co-ordinator; -Research on trapping effectiveness in UK;



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<p>2. Federal Ministry for Sustainability and Tourism, Austria</p> <p>Sylvia Bluemel  <a href="mailto:sylvia.bluemel@ages.at">sylvia.bluemel@ages.at</a></p>	<p>Contribution to be defined</p> <p>Contact person: Gernot Hoch          E.mail address: <a href="mailto:gernot.hoch@bfw.gv.at">gernot.hoch@bfw.gv.at</a></p>
<p>3. Federal Public Service Health, Food Chain Safety and Environment, Belgium</p> <p>Ria Nouwen  <a href="mailto:ria.nouwen@health.belgium.be">ria.nouwen@health.belgium.be</a></p>	<p>Contribution to be defined</p>
<p>4. Federal Ministry of Food and Agriculture, Germany</p> <p>Silke Steinmüller  <a href="mailto:silke.steinmoeller@julius-kuehn.de">silke.steinmoeller@julius-kuehn.de</a></p>	<p>-Contribution to literature review on various trapping systems and also on current distributions of Buprestidae in Germany;          -Research on trapping effectiveness on <i>Agriilus</i> spp. in Germany;</p> <p>Contact person: Björn Hoppe          E.mail address: <a href="mailto:bjorn.hoppe@julius-kuehn.de">bjorn.hoppe@julius-kuehn.de</a></p> <p>Contact person: Anne Wilstermann          E.mail address: <a href="mailto:anne.wilstermann@julius-kuehn.de">anne.wilstermann@julius-kuehn.de</a></p>
<p>5. Ministry of Agriculture, Plant Biosecurity, Plant Protection and Inspection Services, Israel</p> <p>Yael Meller Harel  <a href="mailto:YaelM@moag.gov.il">YaelM@moag.gov.il</a></p>	<p>Contribution to be defined</p>
<p>6. National Institute for Agricultural and Veterinarian Research, Portugal</p> <p>Leonor Cruz  <a href="mailto:leonor.cruz@iniav.pt">leonor.cruz@iniav.pt</a></p>	<p>Contribution to be defined</p>
<p>7. Ministry of Agriculture Forestry and Food, Slovenia</p> <p>Erika Oresek  <a href="mailto:erika.oresek@gov.si">erika.oresek@gov.si</a></p>	<p>Contribution to be defined</p> <p>Contact person: Maarten De Groot          E.mail address: <a href="mailto:maarten.degroot@gozdis.si">maarten.degroot@gozdis.si</a></p>
<p>8. Department of Agriculture, Animal and Plant Health Inspection Service, United States of America</p> <p>David Schimmelpfenning  <a href="mailto:david.schimmelpfenning@usda.gov">david.schimmelpfenning@usda.gov</a></p>	<p>-Contribution to North American literature review;          -Research on trapping effectiveness in North America;</p> <p>Contact person: Joe Francese          E.mail address: <a href="mailto:joe.francese@usda.gov">joe.francese@usda.gov</a></p> <p>Contact person: Damon Crook</p>



	E.mail address: <a href="mailto:damon.j.crook@usda.gov">damon.j.crook@usda.gov</a>
9. Canadian Forest Service, Canada	<p>Contribution to be defined</p> <p>Contact person: Jon Sweeney E.mail address: <a href="mailto:jon.sweeney@canada.ca">jon.sweeney@canada.ca</a></p> <p>Contact person: Peter Silk E.mail address: <a href="mailto:peter.silk@canada.ca">peter.silk@canada.ca</a></p>
10. Research Group for Organic Farming, France  Maxime Jacquot <a href="mailto:maxime.jacquot@grab.fr">maxime.jacquot@grab.fr</a>	<p>-Research on the monitoring and the control of <i>Agrilus sinuatus</i>, pest of pear trees;</p> <p>Contact person: Maxime Jacquot E.mail address: <a href="mailto:maxime.jacquot@grab.fr">maxime.jacquot@grab.fr</a></p> <p>Contact person: Claude-Eric Parveaud E.mail address: <a href="mailto:claudeferic.parveaud@grab.fr">claudeferic.parveaud@grab.fr</a></p>
11. Insectronics, Greece  Iraklis Rigakis <a href="mailto:sales@insectronics.net">sales@insectronics.net</a>	<p>-Piezoelectric probes that detect and record wood-boring insects; -Smart electronic traps that wirelessly report counts of captured insects to cloud services;</p> <p>Contact person: Iraklis Rigakis E.mail address: <a href="mailto:jiraklis.rigakis@gmail.com">jiraklis.rigakis@gmail.com</a></p> <p>Contact person: Dr. Ilyas Potamitis E.mail address: <a href="mailto:potamitis@hmu.gr">potamitis@hmu.gr</a></p>

### 1.8. 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 that the topic is advertised outside the Euphresco network

### 1.9. Any other relevant information on content

None

## 2. Euphresco management aspects of the project

### 2.1. Indication of the topic budget

Funding organisation <sup>a</sup>	Mechanism <sup>b</sup>	Total Budget <sup>c</sup>
1. Defra (GB)		€
2. AGES (AT)		€
3. FPS (BE)		€
4. BMEL (DE)		€
5. MOAG (IL)		€
6. INIAV (IL)		€
7. MAFF (SI)		€
8. APHIS (US)		€
9. CFS (CA)		€
10. GRAB (FR)		€
11. INSECTRONICS (GR)		€
total		€

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

24 months

### 2.3. Identification of project coordinator

Has the research project coordinator been identified?

Yes

No

### 2.4. Any other relevant information on topic organisation and management

None

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

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

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