

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-6.1: to test and validate methods for in situ detection and identification of pests
- ☒ Objective 2017-I-1.2: to improve access to collections of phytosanitary importance
- ☒ Objective 2017-I-1.3: to build a network of collections that fulfil minimum quality standards
- ☒ Objective 2017-I-2.2: to contribute to databases for plant pests identification and diagnostics

1.3. Topic title

Infrastructure for sharing infested seed lots for test development and validation

1.4. Description of the problem the research should solve

Access to infected plant materials and seeds is a crucial need for research projects, validation and verification of detection methods, proficiency tests or routine use for laboratories. Infected seeds should meet specified criteria, e.g. regarding the level of contamination, homogeneity and stability.

The availability of infected seed lots is finite in quantity due to a limit on the shelf life. This situation differs from (most) collections, therefore a different approach is needed for making such seed lots available.

It is difficult to access to such seed lots due to the lack of knowledge of availability of lots, the requirements laid down by regulation and the lack of a network to link the different actors involved in seed testing.

Creation of a network involving research laboratories, National Plant Protection Organizations (NPPOs), Seed Health laboratories, universities, seeds producers and other actors working on seeds will facilitate both exchanges and effective communication.

1.5. Description of the expected results

The aim of this project will be to create a network allowing access and exchange of infested and healthy seeds.

This network would include actors who would provide healthy and naturally infected seeds. This may include actors who would be able to provide artificially contaminated seeds when necessary or to produce infected seeds in a field or a greenhouse. It also would require actors who would be able to characterize the lots and actors who would have the capacity to store and deliver the seed lots.

The project will define the needs, the workflow and responsibilities, who could have access to the lots, how information is made available and what conditions apply for access to material. It will establish the criteria and quantities necessary for the different tests. The project will include as many plant species as possible and various pathogens (i.e. nematodes, viruses, bacteria, and fungi).

The project will establish protocols to characterise the seeds lots which have to meet defined criteria in terms of level of contamination, homogeneity, stability. It will also provide guidelines and template documents for seeds exchanges following the different country regulations.

The final objective is to build a platform allowing requests, access and exchanges of seed lots.

1.6. Beneficiaries of this research product

NPPOs, research laboratories, universities and Seed Health laboratories.



1.7. Research funders and research contribution/ distribution

Funding organisation	Research activity and researchers involved
<p>1. Groupe d'Etude et de contrôle des Variétés Et des Semences, France</p> <p>Valérie Grimault valerie.grimault@geves.fr</p>	<p>-Project coordination; -Scientific contribution to be detailed;</p> <p>Contact person: Isabelle Sérandat E.mail address: isabelle.serandat@geves.fr</p> <p>Contact person: Justine Foucher E.mail address: justine.foucher@geves.fr</p>
<p>2. Department of Agriculture, Water and the Environment, Australia</p> <p>Con Goletsos ACPPO@agriculture.gov.au</p>	<p>-Contribution as an end user of infected seed in test development and validation -Providing insight into policy/phytosanitary needs as a NPPO;</p> <p>Contact person: Neil Grant E.mail address: neil.grant@awe.gov.au</p> <p>Contact person: Wes Webster E.mail address: Wes.webster@awe.gov.au</p>
<p>3. Central Institute for Supervising and Testing in Agriculture, Czech Republic</p> <p>Hana Mertova Hana.Mertova@ukzuz.cz</p>	<p>-Contribution to be detailed;</p> <p>Contact person: E.mail address:</p>
<p>4. Federal Ministry of Food and Agriculture, Germany</p> <p>Beerbaum, Bettina Bettina.Beerbaum@bmel.bund.de</p> <p>Silke Steinmüller silke.steinmoeller@julius-kuehn.de</p>	<p>-Contribution to be detailed;</p> <p>Contact person: Heiko Ziebell E.mail address: heiko.ziebell@julius-kuehn.de</p>
<p>5. Ministry of Agriculture, Plant Biosecurity, Plant Protection and Inspection Services, Israel</p> <p>Abed GERA AbedG@moag.gov.il</p> <p>Yael Meller Harel YaelM@moag.gov.il</p>	<p>-Contribution to be detailed;</p> <p>Contact person: E.mail address: doritsh@moag.gov.il</p>
<p>6. National Plant Protection Organization, Netherlands Food and Consumer Products Safety Authority, the Netherlands</p> <p>Mr Martijn Schenk M.Schenk1@nvwa.nl</p>	<p>-Contribution to be detailed;</p> <p>Contact person: E.mail address:</p>
<p>7. Norwegian Institute of Bioeconomy research, Norway</p>	<p>-Participate in development of the platform/database for available seeds lots;</p>



<p>Hanne Skomedal Hanne.Skomedal@nibio.no</p>	<p>-Participation in establishing protocols for characterization of seed lots; -Provide healthy and naturally infected seeds (agricultural crops in Nordic countries); -Use infected seeds in seed health testing method development and validation;</p> <p>Contact person: Guro Brodal E.mail address: guro.brodal@nibio.no</p>
<p>8. All Russian Plant Quarantine Center</p> <p>Yuri Shneyder yury.shneyder@mail.ru</p>	<p>-Contribution to be detailed;</p> <p>Contact person: E.mail address:</p>
<p>9. Ministry of Agriculture Forestry and Food, Slovenia</p> <p>Erika Oresek erika.oresek@gov.si</p>	<p>-Exchange of experience in the preparation of reference material (based on the EPPO draft protocol); -Participation in the drafting of the protocol/guidelines;</p> <p>Contact persons: Natasa Mehle E.mail address: natasa.mehle@nib.si</p> <p>Contact persons: Tanja Dreo E.mail address: tanja.dreo@nib.si</p>
<p>10. US Department of Agriculture, Animal and Plant Health Inspection Service, United States of America</p> <p>Jennifer Nicholson jennifer.s.nicholson@usda.gov</p>	<p>-Contribution to be detailed;</p> <p>Contact person: E.mail address:</p>
<p>11. University of Forestry, Bulgaria</p> <p>Rumen Tomov rtomov@yahoo.com</p>	<p>-Exchange of experience in field detection, sampling and preparation of reference materials; -Participation in the performance and drafting of protocols;</p> <p>Contact person: Zhelyu Avramov E.mail address: zhelyu.avramov@gmail.com</p>
<p>12. HM. Clause, France</p>	<p>-Contribution to be detailed;</p> <p>Contact person: Juliette Delisle E.mail address: Juliette.delisle@hmclause.com</p>
<p>13. Vilmorin-Mikado, France</p> <p>Lê Van Amandine Amandine.levan@vilmorin.com</p>	<p>-Contribution to be detailed;</p> <p>Contact person: Lê Van Amandine E.mail address: Amandine.levan@vilmorin.com</p>
<p>14. International Seed Federation, International</p>	<p>Contribution to be detailed;</p> <p>Contact person: Rose Souza Richards</p>



Rose Souza Richards r.souzarichards@worldseed.org	E.mail address: r.souzarichards@worldseed.org
15. Ministry of Agriculture and Rural Development, Volcani Center, Israel aviv@volcani.agri.gov.il	-Contribution to be detailed; Contact person: E.mail address: aviv@volcani.agri.gov.il
16. Agrinova, University of Turin, Italy Monica Mezzalama monica.mezzalama@unito.it	-Validation of seed testing protocols; -Seed disinfection and natural treatments; -Guidelines for safe seed exchange activities (including germplasm stored in germplasm banks); Contact person: Monica Mezzalama E.mail address: monica.mezzalama@unito.it
17. Marche Polytechnic University, Italy Gianfranco Romanazzi g.romanazzi@univpm.it	-Contribution to be detailed; Contact person: Gianfranco Romanazzi E.mail address: g.romanazzi@univpm.it Contact person: Marwa Mourni E.mail address: m.mourni@staff.univpm.it

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 ^a	Mechanism ^b	Total Budget ^c
1. GEVES (FR)	NC	€
2. DAWE (AU)	NC	€
3. UKZUZ (CZ)	NC	€
4. JKI (DE)	NC	€
5. MOAG (IL)	NC	€
6. NVWA (NL)	NC	€
7. NIBIO (NO)	NC	€
8. VNIKR (RU)	NC	€
9. MAFF (SI)	NC	€
10. APHIS (US)	NC	€
11. UoF (BG)	NC	€
12. HM. Clause (FR)	NC	€
13. Vilmorin-Mikado (FR)	NC	€
14. ISF (Int)	NC	€
15. Volcani (IL)	NC	€
16. Agrinnova (IT)	NC	€
17. UNIVPM (IT)	NC	€

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

24-36 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.

^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.