

# Horizon Europe Partner Search Form

- I offer my expertise to participate
- I am planning to coordinate a proposal and I am looking for partners

## Topic

Topic we are interested in:

HORIZON-CL6-2022-FARM2FORK-02-04-two-stage

## Project information

Tentative title:

IoT based sensor for insects monitoring

Project idea:

Irideon is an SME expert in IoT sensor applications. Irideon has an early warning system (Vectrack), which uses IoT sensors designed to prevent and control epidemics of vector-borne diseases, namely arboviruses. This enables a more precise, effective and efficient use of resources to protect public health and save lives. Irideon's sensor is capable of automating commercial insect traps, i.e., making them smart. The sensor automatically counts insects, and identifies species, sex and age. The information is wirelessly sent to a machine learning server, and the data can be combined with Copernicus and GEOSS assets, and Citizen Science models, to generate Risk Maps. This technology is nowadays at TRL 7/8.

Irideon has also started the development of a new sensor to remotely assess the abundance and dynamics of pollinators. This sensor is at the prototype stage - at least TRL4. It is an automatic technique that is non-lethal for insects (no trapping) and can be used to make a continuous analysis of the biodiversity and population of pollinators. This includes the common commercial pollinators (bees and bumblebees) but also wild pollinators. This disruptive technology can be of great importance for the sector of seeds, namely to use the data on pollinators to implement precision management operations to increase the productivity of seed, fruit and vegetable production.

The main idea of this project is to bring both technologies to at least TRL7 by:

- Optimizing the sensor (TRL4/5).
- Demonstrate the sensor as prototype/proof of concept in relevant and operational environment (TRL 5 to 7).
- System qualification by end-users (TRL 7/8).

We are aiming at developing at least 2 user cases with one or more of the following end-users: Pest management company, Food industry, Farming companies, Companies producing insecticides and pesticides, Fertilizer developers, Ecologists, Green houses, Public health agencies, Hotel industries, Military, Supermarkets

Potential contribution of my organisation to the project:

NETO will lead the management of the project:

- Project design, implementation and management.
- Innovation management based on design thinking and ISO 9001 quality standards.
- Business plans and support for the exploitation and go to market stage.
- Evaluation and monitoring.
- Technical advice.
- Technology transfer from lab to fab.
- Literature and patent review.
- Products and processes roadmap.
- Communication strategy and implementation.

Role in the project:

- Research
- Training
- Dissemination
- Technology Development
- Other

Experience as a coordinator:

- Yes
- No

Experience as a partner in a collaborative project:

- Yes
- No

Consortium:

- For the moment we have only 2 confirmed partners:
1. The technology developer – the technical coordinator.
  2. The project manager – administrative, financial, innovation

### Target Coordinator/Partner sought

Organisation type:

- Higher Education/University
- Public Research Organisation
- Large Scale Enterprise
- Small and Medium Scale Enterprise
- Public Body/Authority
- International NGO
- National NGO

Other, please specify:

We are looking for the following expertise/competencies:

We are looking for:

- Universities and/or research labs focusing on insects' studies.
- Research institutes with competencies in raising insects in laboratories for artificial intelligence training and machine learning.
- At least 2 end-users from those cited above (1 end-user = 1 user case).

## Contact details

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At NETO Innovation, we offer our customers and partners high quality services based on the expertise of our team in Research, Development, and Innovation (RDI), project writing and management:

- More than 10 years of experience in RDI.
- Management of RDI teams and projects.
- Technology transfer from lab to fab.
- Writing of multiple successful proposals: 4 H2020, 1 SME Instrument Phase 2 (EIC Accelerator), 2 ADEME, 1 ANR, 2 Plan de Relance, 1 i-Nov, 2 IPCEI.
- Coordination of multiple collaborative projects: 1 SME Instrument, 1 DGE, 1 ANR.
- WP leader of 3 H2020 projects.
- Partner in 4 H2020 projects and 1 FP7 project.

Additional information on the organisation (previous projects, publications, etc.):