Objective

"Pesticides still constitute an integral part of modern agriculture. Upon their release, pesticides interact with soil microbes in contrasting ways. On the one hand they stimulate microbial activity and proliferation of a specific fraction of the microbial community which could utilize them as energy source resulting in their rapid biodegradation and loss of biological efficacy. On the other hand they induce inhibitory effects on the structure and/or on the function of the microbial community, the latter having detrimental effects on ecosystem functioning. So far pesticide legislation has largely ignored these aspects and pesticide soil ecotoxicity tests relies solely on simple C and N mineralization tests which do not provide a reliable assessment of pesticide impact on soil microbes. The introduction of fingerprinting molecular methods, qPCR, high throughput sequencing analysis, microarrays and -omics have substantially advanced our knowledge on soil microbial ecology. However, these dynamic tools have not been utilized yet to shed light into soil microbes - pesticides interactions. This project aims to introduce these highly dynamic tools in combination with chemical analysis of pesticides and their
metabolites to shed light into those interactions and the factors deciding which way the balance with go (stimulation or inhibition). This will be achieved via collaboration of two industrial and three academic partners with complementary expertise in molecular microbial ecology, soil microbiology, pesticide metabolism and the establishment of a staff exchange scheme. This apart from the achievement of the scientific and technological goals of the project will facilitate technology transfer between partners and open communication channels between Academia - Industry. Further the project is expected to support increasing communication with standardization foundations (ISO) and EU policy making bodies regarding pesticides (EFSA)"

Field of science

/natural sciences/biological sciences/ecology
/agricultural sciences/agriculture, forestry, and fisheries
/agricultural sciences/agriculture, forestry, and fisheries/agriculture
/natural sciences/biological sciences/microbiology

Programme(s)

Topic(s)

Call for proposal

FP7-PEOPLE-2012-IAPP

Funding Scheme

MC-IAPP - Industry-Academia Partnerships and Pathways (IAPP)

Coordinator

PANEPISTIMIO THESSALIAS

Address

Argonafton Filellinon
38221 Volos

Greece

Activity type

Higher or Secondary Education Establishments

EU contribution

€ 445 025,71

Website

Contact the organisation
# Participants (5)

<table>
<thead>
<tr>
<th>Organisation Name</th>
<th>Country</th>
<th>EU Contribution</th>
<th>Activity Type</th>
<th>Address</th>
<th>Website</th>
<th>Contact the organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PANEPISTIMIO DYTIKIS ELLADAS</td>
<td>Greece</td>
<td>€ 0</td>
<td>Higher or Secondary Education Establishments</td>
<td>Georgiou Seferi 2 30100 Agrinio</td>
<td><a href="#">Contact the organisation</a></td>
<td><a href="#">Contact the organisation</a></td>
</tr>
<tr>
<td>AEIFORIA SRL</td>
<td>Italy</td>
<td>€ 331 515,44</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
<td>Strada Faggiola 12/16 Frazione Gariga 29027 Podenzano</td>
<td><a href="#">Contact the organisation</a></td>
<td><a href="#">Contact the organisation</a></td>
</tr>
<tr>
<td>HYDREKA ENOVEO SAS</td>
<td>France</td>
<td>€ 348 411,96</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
<td>51 Avenue Rosa Parks 69009 Lyon</td>
<td><a href="#">Contact the organisation</a></td>
<td><a href="#">Contact the organisation</a></td>
</tr>
</tbody>
</table>
PANEPISTIMIO PATRON

Greece

EU contribution

€ 305 980,62

Address

University Campus Rio Patras
265 04 Rio Patras

Activity type

Higher or Secondary Education Establishments

Website

Contact the organisation

Administrative Contact

Georgios Tsiamis (Dr.)

INSTITUT NATIONAL DE RECHERCHE POUR L’AGRICULTURE,
L’ALIMENTATION ET L’ENVIRONNEMENT

France

EU contribution

€ 343 801,77

Address

Rue De L’universite 147
75338 Paris Cedex 07

Activity type

Research Organisations

Website

Contact the organisation

Administrative Contact

Fabrice Martin-Laurent (Dr.)

Last update: 2 August 2019
Record number: 106642

Permalink: https://cordis.europa.eu/project/id/324349/

© European Union, 2020