14 PhD positions (f/m/d) in the EU Horizon 2020 Marie-Skłodowska-Curie Project: MSCA-ITN-ETN SOPLAS

The Innovative Training Network "SOPLAS – Macro and Microplastic in Agricultural Soil Systems" is funded by the European Commission under the Horizon 2020 programme (Marie Skłodowska-Curie Actions) and offers 14 fully-funded PhD positions (for early-stage researcher (ESR)) with attractive complementary training activities and generous travel, laboratory and research budgets. The successful candidates will be hosted by a member of a European Consortium of universities, research institutions and companies in Germany, United Kingdom, Czech Republic, Spain, Austria, Netherland, Belgium, Switzerland and Portugal. Successful candidates will have the necessary background education and a research interest in a field that matches the respective topic, including in natural, environmental, technical, social or economic science. The selected PhD students will participate in a multidisciplinary and inter-sectoral research and training network aimed at accelerating the applicants' scientific careers.
SOPLAS is unique in that it will combine the expertise from scientists from diverse research fields to work in an interdisciplinary team to deliver significant advances in understanding the specific fate and effects of plastic within agricultural soils and, more generally, the sustainability of plastic use in agriculture.

SOPLAS will:

- Train scientists (ESRs) able to tackle the critical knowledge gaps related to the fate and impacts of plastics in agroecosystems. You will be part of a multi-disciplinary and inter-sectoral training network delivering significant advances in understanding the specific fate and effects of plastic within soils and, more generally, the sustainability of plastic use in agriculture.
- Develop operational techniques to detect plastics in soils, with a focus on microplastic (MiP)
- Provide a first comprehensive assessment of the ecotoxicological effects of MiP in soils systems
- Analyse different technical and socio-economic options, including the use of biodegradable plastics, to lower plastic accumulation in soils systems
- Analyse and model MiP fluxes from arable land into freshwater systems
- Provide the scientific evidence to support the development of new environmental policies, agricultural practices and industrial opportunities related to plastics in agriculture in Europe.

Titles of the ESR-projects:

ESR1 Economic Incentives to Control MiP Pollution: An analysis of farm and household decision making using discrete choice experiments (University of Durham, UK)
ESR2 Assessing plastic inputs from mulching using remote sensing techniques (University Augsburg, DE)
ESR3 Method development for isolation, enumeration, quantification and characterization of MiP and macroplastic (MaP) in soil and soil amendments and support optimization of plastic removal from compost (Wessling GmBH, DE)
ESR4 Elucidating the role of compost application, plastic mulching and irrigation for plastic pollution of soils (University of Bonn, DE)
ESR5 Development and application of fluorescence-based techniques to quantify MiP pollution in soils (University of Lancaster, UK)
ESR6 Degradation from MaP to MiP resulting from plastic mulching in different agricultural environments (University Augsburg, DE)
ESR7 Elucidating biodegradation of polymeric films in agricultural soils (ETH Zürich, CH)
ESR8 Remediation of soils polluted with MiP - microbial degradation of plastic debris (Wageningen University, NL)
ESR9 Impacts of MiP on plant-associated microbiome (Spanish National Research Council, ES)
ESR10 Impacts of MiP on soil meso- and macro-fauna (University Vigo, ES)
ESR11 Redistribution of plastic within the soil column affecting soil hydraulic properties and leaching (Spanish National Research Council, ES)
ESR12 Transport of MiP in the vadose zone and leaching of microplastic to groundwater (BOKU, AT)
ESR13 Transport of MiP in overland flow (University of Lancaster, UK)
ESR14 Monitoring and modelling the MiP connectivity within a small catchment (Czech Technical University Prague, CZ)

More Information: **https://www.euraxess.de/de/node/579284**