



## INSPIRATION Marie Skłodowska Curie Innovative Training Network

### Early Stage Researcher (PhD) Fellowships

Agricultural production in Europe has significantly increased food security but simultaneously damaged soil and water resources and ecosystem biodiversity, and contributed to climate change. Further intensification of production to ensure food security for population growth must be sustainable to minimise future environmental impacts and negative externalities. Addressing this legacy and improving the quality and quantity of these critical natural resources for future use requires innovative sustainable management concepts, which must consider environmental, technical, social and economic factors. Decision-making frameworks and predictive tools must also be developed to implement sustainable agricultural practices and devise measures to mitigate impacts. These approaches must be developed from the farm- to catchment-scale and consider the cycling of nutrients and pollutants through the continuum of the atmosphere-soil-surface water-groundwater systems within European agricultural landscapes. Meeting these challenges requires an integrated analysis represented in this project.

INSPIRATION (*managing soil and groundwater impacts from agriculture for sustainable intensification*) is a multidisciplinary European Training Network composed of 26 partners in 8 European countries, which aims to develop low-technology management practices, monitoring approaches, modelling and decision-making tools, and innovative technology applications in the field of sustainable agriculture by a combination of fundamental and applied science ([www.inspirationitn.eu](http://www.inspirationitn.eu)). The network will provide high-quality research training to young scientists, through 15 fully-funded Early Stage Researcher (PhD level) fellowships. The academic partners include leading research groups in this field. The non-academic partners include all stakeholder interests (regulators, advisory bodies, water utilities, consulting firms, commercial R&D, technology vendors, SMEs and multinationals). The team of 15 fellows employed by INSPIRATION will research scientific topics which cover important scientific, technical and management problems within the training themes described below. The project has an international advisory group and will undertake a comprehensive programme of knowledge transfer activities with other scientific networks and professional bodies in this field. The fellowships in INSPIRATION will start in October 2016.

#### Research training themes

INSPIRATION will provide applied research training in the following areas :

- Innovative methodologies for measuring contaminant fluxes in the subsurface
- Predicting catchment-scale nutrient and contaminant fluxes between compartments
- Restoring marginal land for agriculture using low cost amendments and bioremediation
- Mitigation of soil and groundwater impacts from agriculture using mixed waste media
- Sustainability of agricultural management strategies at the catchment-scale

#### Research training partners

The research training partners in INSPIRATION are :

- University of Sheffield ([www.shef.ac.uk/](http://www.shef.ac.uk/)); contact Steve Thornton ([s.f.thornton@sheffield.ac.uk](mailto:s.f.thornton@sheffield.ac.uk))
- EAWAG ([www.eawag.ch/](http://www.eawag.ch/)); contact Mario Schirmer ([mario.schirmer@eawag.ch](mailto:mario.schirmer@eawag.ch))
- Wageningen University ([www.wageningenur.nl/](http://www.wageningenur.nl/)); contact Wim de Vries ([wim.devries@wur.nl](mailto:wim.devries@wur.nl))
- Agriculture and Food Development Authority of Ireland ([www.teagasc.ie](http://www.teagasc.ie)); contact Owen Fenton ([owen.fenton@teagasc.ie](mailto:owen.fenton@teagasc.ie))
- T.E. Laboratories Ltd ([www.tellab.ie/](http://www.tellab.ie/)); contact Catriona O'Reilly ([hr@tellab.ie](mailto:hr@tellab.ie))
- Helmholtz Centre for Environmental Research ([www.ufz.de/](http://www.ufz.de/)); contact Kay Knöller ([kay.knoeller@ufz.de](mailto:kay.knoeller@ufz.de))
- IWW Consulting Services ([iww-online.de/](http://iww-online.de/)); contact Christophe Schueth ([schueth@geo.tu-darmstadt.de](mailto:schueth@geo.tu-darmstadt.de))
- Université de Liège ([www.ulg.ac.be/](http://www.ulg.ac.be/)); contact Serge Brouyere ([serge.brouyere@ulg.ac.be](mailto:serge.brouyere@ulg.ac.be))
- Flemish Institute for Technological Research ([www.vito.be/](http://www.vito.be/)); contact Ingeborg Joris ([ingeborg.joris@vito.be](mailto:ingeborg.joris@vito.be))
- Geolys ([www.geolys.be/](http://www.geolys.be/)); contact Laurent Piront ([laurent.piront@geolys.be](mailto:laurent.piront@geolys.be))
- Warsaw University of Technology ([www.pw.edu.pl/](http://www.pw.edu.pl/)); contact Jolanta Kwiatkowska-Malina ([j.kwiatkowska@gik.pw.edu.pl](mailto:j.kwiatkowska@gik.pw.edu.pl))
- **Contact the specific research training partner for details of fellowships, research topics and the application procedure. All fellowships will be advertised on <http://ec.europa.eu/euraxess/>. Eligibility conditions apply, refer to : [http://ec.europa.eu/research/mariecurieactions/about-msca/actions/itn/index\\_en.htm](http://ec.europa.eu/research/mariecurieactions/about-msca/actions/itn/index_en.htm)**