Eawag, the Swiss Federal Institute of Aquatic Science and Technology, is an internationally networked aquatic research institute within the ETH Domain (Swiss Federal Institutes of Technology). Eawag conducts research, education and expert consulting to achieve the dual goals of meeting direct human needs for water and maintaining the function and integrity of aquatic ecosystems.

The Departments of Water Resources and Drinking Water and Systems Analysis, Integrated Assessment and Modelling of Eawag and the INSPIRATION Marie-Curie Initial Training Network offer an

Early Stage Researcher (PhD Student) position

Topic: Modelling catchment-scale environmental impacts of agricultural contaminant fluxes using a semi-distributed modelling approach

Background
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). The research focuses on understanding and predicting the environmental fate of nutrient and organic pollutants from agricultural practices and managing their impact on soil, water and climate systems to ensure sustainable production. It links lab- to catchment-scale studies of biogeochemical processes with field-scale evaluation of novel monitoring and management concepts, using state-of-the-art methods. The network will provide high-quality research training to young scientists, through 15 fully-funded Early Stage Researcher (PhD level) fellowships. The network includes leading research groups, regulators, advisory bodies, water utilities, consulting firms, commercial R&D and multinationals. The project has an international advisory group and will undertake a comprehensive programme of knowledge transfer and outreach activities with other scientific networks and professional bodies in this field.

Modelling catchment-scale environmental impacts of agricultural contaminant fluxes
The aim of this PhD project is to develop a semi-distributed numerical model of water flow and transport of agrochemical-derived organic contaminants at the catchment-scale. We want to deduce the role of surface water-groundwater interactions on contaminant fate and impact on water quality in the catchment. The model will help to derive parameter-driven adaptive sampling and monitoring schemes. Furthermore, we want to evaluate the effect of different climate drivers on contaminant fluxes at the catchment-scale for different scenarios.

The successful candidate needs a background in environmental sciences including knowledge of technical subjects such as programming, numerical methods and statistics. Master's degrees in environmental engineering or a related field are therefore indicated. Fluency in English (working language) is a requirement. Fluency in German would be an advantage but is not a requirement. For further information about the fellowship please contact: Prof. Dr Mario Schirmer, Eawag - Department Water Resources and Drinking Water or Dr Fabrizio Fenicia, Eawag - Department Systems Analysis, Integrated Assessment and Modelling (mario.schirmer@eawag.ch; fabrizio.fenicia@eawag.ch)

Duration of employment
The period of appointment for the Early Stage Researcher is up to 36 months, starting October 2016. The successful candidate is expected to register for a programme of study that leads to a PhD. The PhD enrolment will be at the University of Neuchâtel (Switzerland).

Benefits
All fellows will receive a contract of employment as a full-time researcher for the relevant period of their appointment, which will include applicable benefits in the host country. All fellows will complete a comprehensive personalised career development programme, with targeted training measures and participate in a range of network events across the partnership, including industrial training experience. Participation in external relevant scientific and technical training events and conferences is also supported. Fellows will benefit from interdisciplinary cooperation and interaction with all sectors of the agri-environmental management community, providing them with the best preparation for a successful career in either academia or industry.

Marie Curie Fellowships for Early-Stage Researchers provide salaries in line with H2020-MSCA-ITN-2015. Additional allowances for mobility, travel and career development are also provided.

Experience and mobility conditions
To be eligible, applicants for Early-Stage Researcher fellowships must have no PhD and less than 4 years full-time equivalent research experience from the award of the degree which entitles them to undertake a doctorate. Applicants can be any nationality but at the time of selection must not have resided or carried out their main activity (e.g. work or studies) in Switzerland for more than 12 months in the 3 years immediately prior to the starting date of the fellowship. Short stays, such as holidays, are not taken into account.

The eligibility requirements for Marie Skłodowska Curie Fellowships are non-negotiable and ineligible applicants will not be considered. Further information and the full terms and conditions regarding eligibility are provided on http://ec.europa.eu/research/mariecurieactions/about-msca/actions/itn/index_en.htm

Application process
Candidates should provide the following information in their application:
1. A detailed CV with covering letter which explains your suitability, competence and motivation for scientific research
2. All undergraduate level certificates including university grades. Foreign documents should be sent as certified English translations.
3. A summary of technical and scientific experience
4. A synopsis of the undergraduate thesis if applicable, or a detailed description of any previous research project and its appropriate work plan
5. A list of publications and/or presentations at meetings, if applicable
6. Contact information of two referees

The closing date for applications is 15 July 2016.

Additional information
Eawag offers a unique research and working environment and is committed to promoting equal opportunities for women and men and to support the compatibility of family and work. Applications from women are especially welcome. For more information about Eawag and our work conditions please consult www.eawag.ch and http://www.eawag.ch/en/aboutus/working/employment/.

Further information on other fellowships available within the INSPIRATION Marie Skłodowska Curie Innovative Training Network can be found on http://ec.europa.eu/euraxess/. Further information on the INSPIRATION project and consortium partners can be found on: www.inspirationitn.eu

We look forward to receiving your application. Please submit your application via the Eawag Jobs & Career webpage, any other way of applying will not be considered. The button below will take you directly to the application form.