



## **M2ex – Exploiting metal-microbe applications to expand the circular economy**

Marie Skłodowska-Curie Action H2020-MSCA-ITN-EJD-2019

### **ESR14-UP/CIIMAR: Constructed wetlands for removal of metals from contaminated effluents –studying the role of plants, microorganisms and substrate.**

#### **Job description**

We are looking for a motivated Early Stage Researcher (ESR) in the field of metal bioremediation. The research fellow will be hosted at the Faculty of Sciences of Universidade do Porto (UP) and CIIMAR. The research group involved has long expertise in microbial and bioremediation processes, as well as in constructed wetlands, leading and participating actively in several projects on these topics. He/she will be recruited by Faculty of Sciences of UP for a period of 36 months with the aim of obtaining a PhD degree in co-tutel of UP and National University of Ireland Galway (NUIG).

The M2ex European Joint Doctorate offers to the ESR14 an innovative series of Network-wide training events to ensure a high-quality, engaging and inspirational training environment including secondments in research units at NUIG (Ireland) and IRTA (Spain) and in companies, namely Smart Waste (Portugal).

#### **Objectives**

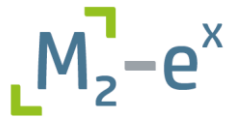
To evaluate the potential of constructed wetlands for the recovery of metal contaminated effluents (e.g. industrial wastewater effluents and liquid digestates from AD). Research on the role of plants, microorganisms and substrate and optimization of biotechnological performance. Different types of pollutants will be considered, not only trace metals but also pharmaceuticals such as antibiotics. This topic will also investigate possible interactions between metals and antibiotics on soil microorganisms, as well as antibiotic resistance phenomena

#### **Expected Results**

Obtained results will elucidate on the performance of constructed wetlands for trace metals removal from different types of metal contaminated effluents, contributing for the development of strategies for effluents management and manipulation in the context of circular bioeconomy, including wastewater re-use.

#### **Candidate's profile**

We are looking for a candidate with Master Degree related to Biology, Environmental Sciences, Biochemistry or Biotechnology.



Metal-Micro exploitation



### **Our Offer**

You will receive an employment contract for 3 years according to the EU contribution for ITN recruitments and general conditions at the host institution. It includes full social security coverage and will start in September 2020.

**Enrolment in Doctoral degree(s):** UP / NUIG