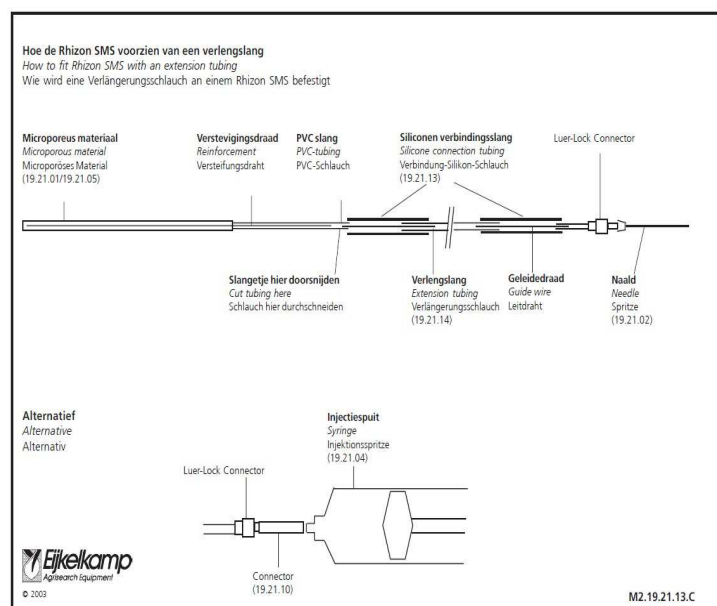


Naturalea participates in the Marie Curie Initial Training Network (ITN), INTERFACES.

INTERFACES is a research project funded by the European Union FP7 programme from November 2013 to November 2017. It brings together 12 partners from 7 countries across the EU as well, as 9 associated partners. The aim of the project is to provide industries, regulators and decision makers with the capacity to predict the complex, non-linear landscape-wide impacts of ecohydrological interfaces in a changing environment, but also to understand how important ecosystem services provided by different ecohydrological interfaces can maintain or even enhance resilience to global environmental changes.

Naturalea contributes to the project by investigating the efficiency of soil bioengineering techniques (e.g. vegetated fibre, rock rolls) and the use of macrophytes in ecosystem restoration and their enhancement of the auto-depurative properties of aquatic interfaces.

The experiments for this purpose will be conducted at Urban River Lab, a large scale outdoor laboratory constructed by Naturalea, University of Barcelona and the Spanish National Research Council (CSIC-CEAB). Urban River Lab includes mesocosm experiment facilities and artificial flumes, simulating stream conditions.



Rhizon sampler

The first phase of the experiment will last from September 2014 until the end of the year and will involve the investigation of the impact of *Scirpus holoschoenus*, a macrophyte species commonly used in constructed wetlands, on the biogeochemical conditions of the hyporheic zone of a stream. Working towards this research direction, 12 mesocosm facilities (tanks) have been installed at the Urban River Lab. Each tank is already filled with fine sand or gravels. Later all the tanks will be filled with treated water from the depuration system and half of them will be planted with *Scirpus holoschoenus*. Pore water samples will be collected with special equipment (Rhizon samplers) in order not to disturb the hydraulic conditions of the water. The water samples will be analyzed for several chemical parameters in order to understand how *Scirpus holoschoenus* can affect the hyporheic zone of a stream and thus the quality of the water.



Mesocosm facilities (tanks)



Rhizon samplers installed in the tanks

The second phase of the experiment will begin from January 2015 and will involve work at the artificial flumes. 9 artificial flumes are being constructed in order for the biogeochemistry of the hyporheic zone to be investigated when the parameter of flow is induced.



Plan of artificial flumes