



JÉRÔME HARMAND

From France to Sweden



Project: **Microbial ecosystems and bioprocesses**

Research topic: **Biology**

Swedish Institution: **Mälardalen University, Västerås**

French Institution: **LBE-INRAE**

Dates of mobility: **06/10/2021 to 12/10/2021**

Program: **SFVE-A (ex TOR)**



PRESENTATION

[Jérôme Harmand](#) is a director of research at [INRAE](#) and is currently the head of the [team SAMI \(System, Analysis, Modeling, Computer Science\)](#) within the [Laboratory of Environmental Biotechnology \(LBE\)](#). He also leads the [TREASURE](#) Euro-Mediterranean research network on unconventional water reuse and co-lead the SICMED-REUSE network.

His research focuses on the modelling and control of microbial ecosystems and bioprocesses. More specifically, it involves developing automatic methods for analysis and design, control and observe and, more generally, for the optimization of microbial ecosystems and bioprocesses with, as main applications biomass treatment and recovery and bioenergy production.

ACTIVITIES IN SWEDEN

The purpose of Jérôme Harmand' scientific visit was to review the progress of collaborations between the LBE-INRAE (France) and the Department of Energy at [Mälardalen University](#) in Västerås (Sweden). His work, notably carried out within the [Control4Reuse European project](#), aimed at developing technologies and methods to reuse treated wastewater. More specifically, this research was a way to contribute to the circular economy of water and nutrients by working around the concept of "water on demand" by adapting the quality of the water to the uses.

During his stay in Sweden, Jérôme Harmand had the opportunity to visit the R&D site of the startup [Swegreen](#), which is developing a new concept of vegetable production inside supermarkets and Sweden's first photo-voltaic farm.

These visits encouraged contacts to extend between France and Sweden, as several research questions could be conducted in collaboration with Jérôme Harmand's colleagues in Sweden.