



PHYCOVER

SUSTAINABLY PRODUCING MICROALGAE BY RECYCLING PHOSPHORUS AND NITROGEN FROM WASTEWATER: DEVELOPING THE TREATMENT PLANT OF THE FUTURE

The aim of the PHYCOVER project is to establish the scientific, technical and industrial basis for developing the sanitation industry that treats effluent from human activity and urban effluent in particular. The project consists of identifying an integrated modular process for treating urban effluent that produces biogas. At the same time, the project will examine ways of optimising the added value of residual organic matter, known as digestate.

The tri-module process will comprise a high-rate algal pond, designed to purify urban wastewater. It will include an anaerobic fermenter (and other reservoirs that can be mobilised) capable of co-digesting the biomass produced, significantly reducing biological and chemical contaminants while producing an energy vector of interest. A final module will develop the economic potential of the digestate – as organic and mineral fertiliser – for agriculture, and also cultivated microalgae aimed at the aquaculture and green chemistry sectors.

The PHYCOVER project proposes to select algal communities that demonstrate a high capacity for purifying effluent. It will ultimately offer all the scientific, technical and economic components required to establish an innovative, optimised industry for treating urban wastewater.

The PHYCOVER project is also recognised by the Pôle Mer Méditerranée and TRIMATEC clusters.

Partners

Research centers

Inra, Laboratoire de Biotechnologie de l'Environnement, Narbonne [Project Developer]
Ifremer, Centre de Nantes, laboratoire Physiologie et Biotechnologie des Algues, Nantes
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