Improving current barriers for controlling pharmaceutical compounds in urban wastewater treatment plants

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LIFE IMPETUS NETWORKING

Objectives

LIFE IMPETUS aims at demonstrating measures for improving the removal of pharmaceutical compounds (PhCs) in urban wastewater treatment plants (WWTPs) with conventional activated sludge (CAS) treatment. As CAS is the most common biological process in urban WWTPs, the solutions may be easily transferred to wastewater treatment across Europe.

A complementary objective is to produce valuable knowledge for water resource protection from PhCs and associated environmental policy. This includes PhC occurrence and concentration, control in WWTPs, bacterial antibiotic resistance and PhC bioaccumulation in clams, a key product in many local economies in the Algarve and elsewhere in Europe.

Description

LIFE IMPETUS project involves long-term field tests in two Portuguese CAS-WWTPs located in water stressed regions (Lisbon and Algarve), and will focus on performance assessment, using benchmarking tools, and chemical enhancement measures easily implementable in the current treatment lines. The project will thus provide, for several scenarios of European wastewater quality, the guidelines for reliable and sustainable improvement of PhC removal in conventional WWTPs while maximising energy efficiency. New adsorbents produced from local vegetal wastes (carob and cork) and biopolymer coagulants will be compared to commercial products.

LIFE IMPETUS project in a nutshell

The project is ABOUT: emerging contaminants (PhCs)

The RESULT is: improved BARRIERS in WWTPs

The GOAL is: environmental protection + water reuse
Industries

- Water utilities
- Industries producing plant residues: e.g. carob tree, cork
- Other industries

Coordinating beneficiary

- LNEC - Laboratório Nacional de Engenharia Civil

Partners

- AdA - Águas do Algarve, S.A.
- EHS - Environment and Regional Development Consulting, Lda
- EPAL - Empresa Portuguesa das Águas Livres, S.A.
- FCUL – Faculdade de Ciências da Universidade de Lisboa
- FFUL – Faculdade de Farmácia da Universidade de Lisboa
- UAlg - Universidade do Algarve

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More information

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