

Membranes for *ENERGY* and *WATER* RECOVERY

*Innovative investment for sustainability
in the wastewater treatment*

What is LIFE Environment Policy and Governance?

It is one of the strands of the European Union's main funding programme, whose aim is to support technological projects that offer significant environmental benefits. This programme also helps projects that improve the implementation of EU legislation, that build the policy knowledge base and that develop environmental information sources through monitoring. LIFE Environment thematic sections offering a selection of projects and their results: air and noise, energy, environmental management, industry-production, land-use and planning, risk management, services and commerce, waste and water.

LIFE programme
LIFE13 ENV/ES/001353

Start date: 01/07/2014 *End date:* 30/06/2018

Total budget: € 2,102,327.00

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With the contribution of the LIFE financial instrument
of the European Community



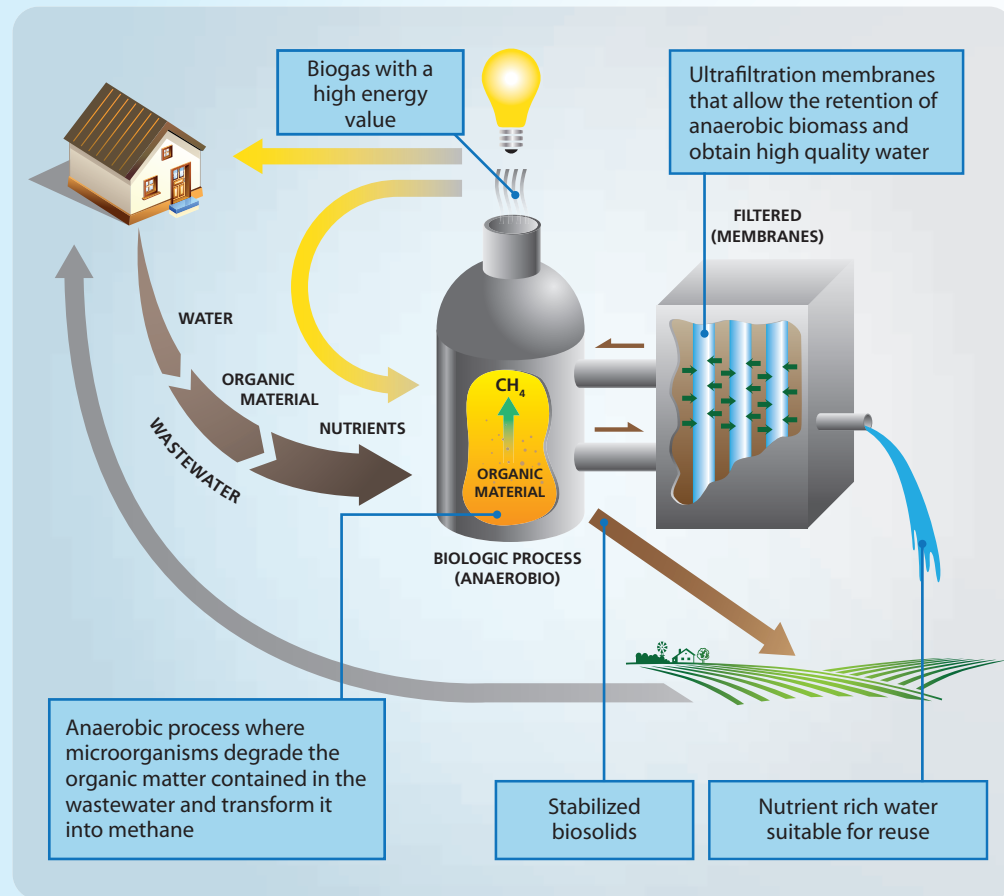


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Towards “XXIst century” WWTP: From wastewater to resource source



Anaerobic Membrane Bioreactor Technology (**AnMBR**) combines anaerobic digestion with ultrafiltration membrane technology and allows the sustainable wastewater treatment. Thanks to **energy generation** in form of methane and **resource recovery**, the carbon footprint of the treatment plant and the emissions of greenhouse gases are minimized at the same time.



Closing cycles for sustainability...

One of the principles of **circular economy** is the water reuse. It stops being a marginal resource to become an essential tool to avoid water scarcity. It is part of the solution to the sustainable water use model.



The **MEMORY** project aims to demonstrate the feasibility of this innovative treatment technology, **AnMBR**, for the treatment of urban wastewater. The implementation of the prototype in the facilities of Alcázar de San Juan WWTP (Ciudad Real, Spain) is a step forward in the current concept of wastewater treatment. This project contributes not only to the development of new environment-friendly processes, but also highly sustainable.

The application of this technology will result in the **reduction** of:

- **energy consumption** per m³ of treated wastewater, up to 70% less compared to conventional processes.
- **not greenhouse gases emission** per unit of COD removed from the influent wastewater up to 80%, reducing significantly the carbon footprint.
- **space requirement** (in m²) for the treatment facilities compared to the conventional ('aerobic') WWTPs by 25%.
- **residuals production** by 50%.

