



# Communication Plan after Life

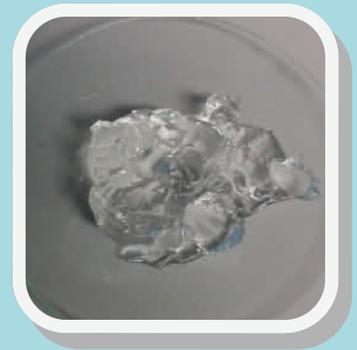
LIFE11/ ENV/ES/000503

## 1. History and Analysis of the Project

The main objective of the project WATOP is the design and development of a demonstrative pilot plant for the removal of micro-pollutants from pharmaceutical and personal care products (PPCPs) from waste waters, by using a new technology based on nanoparticles, with the aim of improving the water quality and the water resources management, with a treatment capacity of 1000 m<sup>3</sup>/h of waste waters.

The project WATOP started on 1st June 2012 and ended on 30 November 2015. During its execution, the obtained results have been the following:

- Development of a technology at semi-industrial level for the removal of PPCPs from waste waters in a purification plant, thus solving the problem related to the specific environmental pollution of PPCPs.
- Development and start-up of a demonstrative pilot plant for water purification, with a treatment capacity of 1000 m<sup>3</sup>/h.
- Contribution to the compliance of European Directive 2000/60/CE for the maintenance and improvement of the aquatic environment.



## 2. SWOT Analysis of WATOP Project

### SWOT ANALYSIS



A SWOT analysis (Strengths, Weaknesses, Opportunities and Treats) is shown below. It allows a better assessment of the current situation and the identification of the objectives for the Communication Plan after LIFE.

**Weaknesses:** To explore a waste water treatment unknown to Lurederra. Very low presence of pollutants in the waste waters. Problem emerged while working with real waste waters. Synthesis of nanoresins.

**Treats:** Limited chance to enter the waste water purification market due to the innovative developed process. Difficulties during industrial scale synthesis of resins due to the high demands of the involved reaction.

**Strengths:** The project is in line with the European policy about environment, promoting the compliance of European Directive 2000/60/CE. Technology proved through tests at pilot plant. Interest of local authorities in a proper purification of waste waters.

**Opportunities:** Pollutans removed during purification process can be reused for cosmetic purposes. In addition, purified water can be used for industrial purposes or as irrigation water in agricultural sector.

***"Demonstrative pilot plant developed and started-up for a tertiary waste water treatment for the removal of PPCPs , with a treatment capacity of 1000 m<sup>3</sup>/h"***

European Directive 2000/60/CE

#### Objetives

La present Directive establishes priority measures for the protection of every water form (continental, surface, transitional, coastal and underground); for the regeneration of the ecosystems in such water bodies and surroundings; the reduction of pollution in the water bodies and the guarantee of a sustainable use of the water from particulars and companies.

### 3. Objctives

During the execution of WATOP project, it has been noticed the importance of developing new technologies for waste water treatment, in particular for emerging pollutants whose removal policy is not clearly defined yet and whose effects on human and environmental health are still being studied. For that reason, Lurederra Technological Center will continue developing promotion and dissemination activities for the innovative waste water purification technology, whose efficiency has been tested through the LIFE program.

Initially, the recipients of such activities will be, mainly, the following ones (some of them have already shown their interest in the project):

- \* **Waste waters purification plants:** Companies devoted to the management of urban and industrial waste waters.
- \* **Pharmaceutical companies:** Companies devoted to the production of medicines which generate waste waters with pollutants.
- \* **Hospitals:** The activities of hospitals could lead to the generation of waste waters polluted with medicines.



***Developed filtering device***

## 4. Methodology

The means and tools that will be used to promote the developed recycling activity are the following:

- \* **Maintenance of the project website:** A large number of contacts have been done during the project execution using this tool. That is the reason why the system will continue working, in order to establish more interesting contacts.
- \* **Dossier with informative brochures:** During the project execution, several informative brochures have been prepared, showing a global view of the developed recycling activity as well as the obtained results.
- \* **Layman report:** During the project execution, Layman report has been performed, providing a vision of the developed recycling activity and the obtained results.
- \* **Demonstrative visits to the purification pilot plant in Estella (Navarra):** Seminars and visits to the purification plant will be organized with the aim of demonstrating in-situ the operation of the filtering device.
- \* **Transmission of information to competent authorities:** Public administrations will be informed about the obtained results, showing the advantages of the process.
- \* **Transmission of information to interested companies:** Companies from pharmaceutical sector, as well as other companies having interest in the filtering process, will be informed about the obtained results.

## 5. Funding

Necessary resources to prepare the current plan after Life of the WATOP project (LIFE11/ ENV/ES/000503) will be supplied by Lurederra Technological Center (Coordinator of the project), although it is not excluded the search of additional funding if the costs are higher than initially expected.

It is estimated a budget of approximately 6,000 € for activities Web, folletos, visits, trips, etc.

### Filtering device

The filtering device, located in the purification plant of SMSA in Estella (Navarra, Spain), consists of ten independent modules, which allow the regeneration of filtering material in one module while the rest of them are working, thus giving rise to a continuous purification process.

The water purification process consists of, mainly:

Waste water enters into the filtering device containing the nanoresin able to remove the PPCPs through the lower part of the box; after being in contact with the resin during 60 seconds, the water leaves the filter through the upper part and goes to a collector, being finally discharged into the river free of pollutants.