



Project funded by the EC  
within LIFE+ program  
LIFE12 ENV/ES/000265



# adnatur

Demonstration of natural coagulant use  
advantages in physical & chemical treatments  
in industry and urban waste water



Coordinating Beneficiary:



Associated Beneficiaries:



MORA  
SPAIN

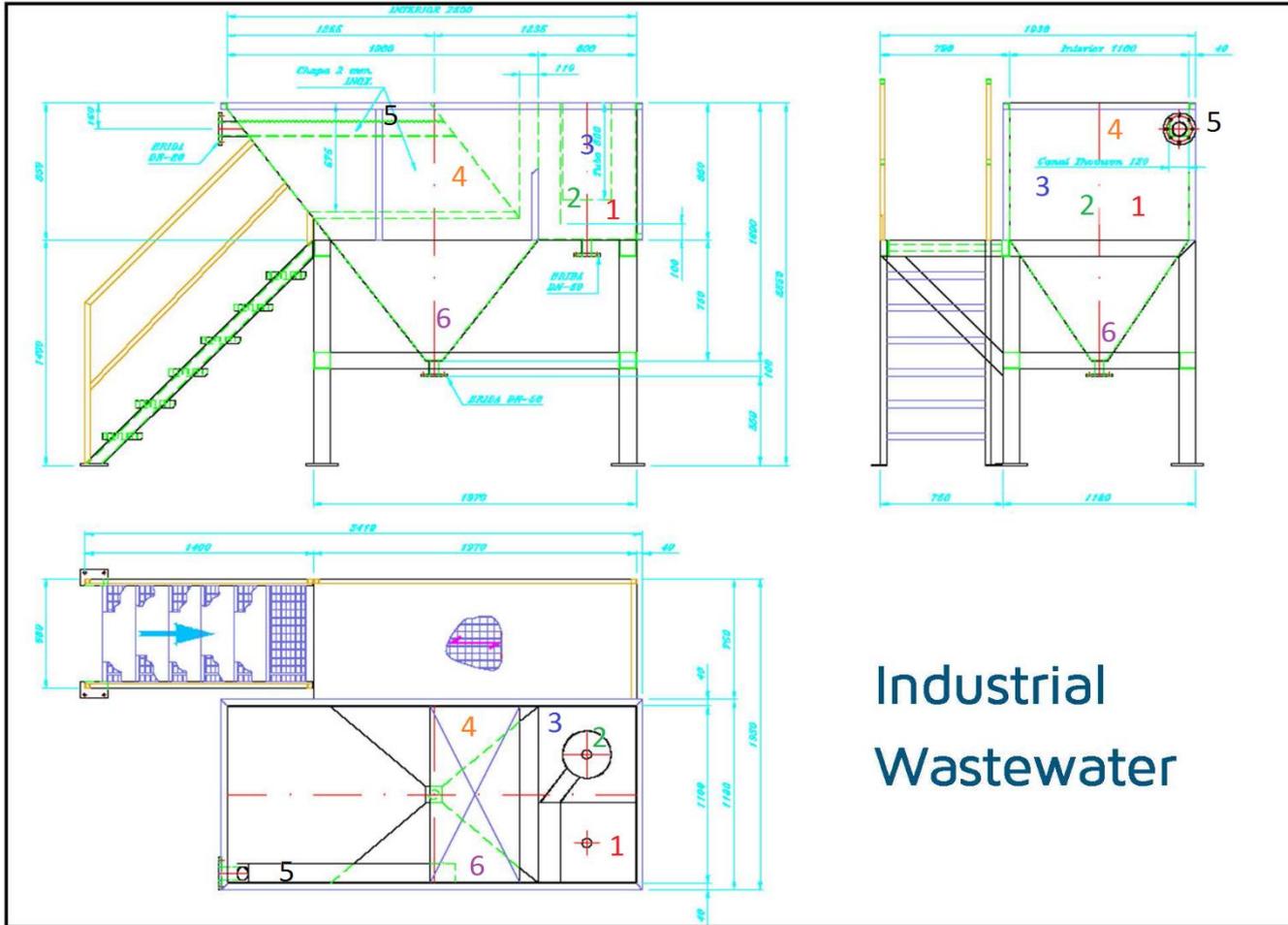
**Action B.1:** has been executed since the beginning of the project (January 2014) and all activities had been carried out as planned and finished on December 2014.

The following activities have successfully been done:

- Design of the prototype focused on feeding industrial water (textile and ceramics sector)
- Design of the prototype focused on feeding urban water
- Construction and operating optimisation of the dosage units in both prototypes
- Construction and operating optimisation of the treatment units in both prototypes
- Integration of units, assembly and final adjustments on industrial
- Integration of units, assembly and final adjustments on urban prototype
- The two prototypes had been assembled, integrated and optimised. So, all operational adjustments necessary to the natural-based products dosing at the pre-established feeding points where carried out, as well as any adjustments required for the general operation of both prototype within the pilot plants.

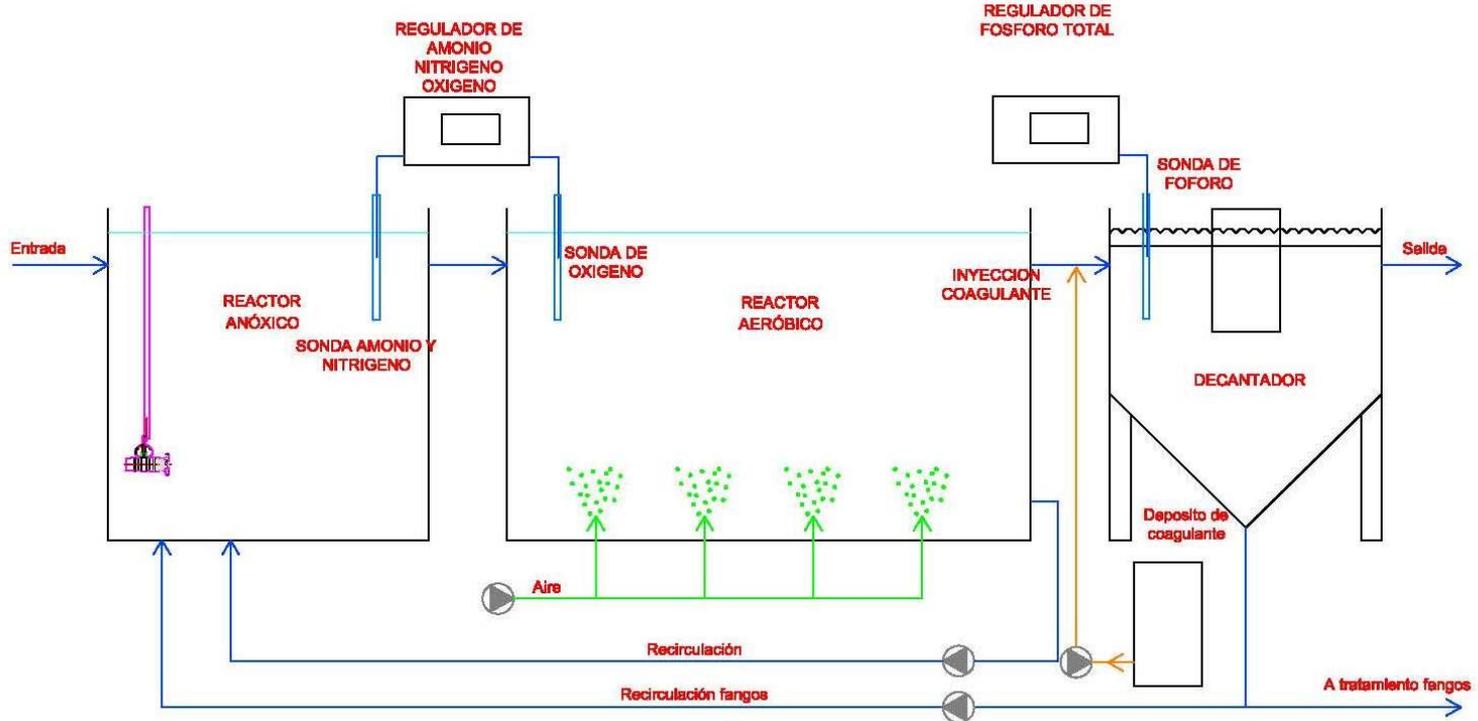
Following the milestone B.1 – M.3 (Prototype) and as a result of this action, three deliverables have been developed:

- ***Deliverable D.B.1.1***: Report of the design of both prototypes (plans and components).
- ***Deliverable D.B.1.2***: Report of the final adjustment of both prototypes.
- ***Deliverable D.B.1.3***: User manual of both prototypes.



## Industrial Wastewater

*Industrial Wastewater prototype design*



## Urban Wastewater prototype design

In order to obtain the most improved efficiency of the proposed treatments, final optimization of both operating procedure was necessary. Two wastewater treatment industrial-scale pilot plants have been designed and assembled. First prototype is mainly focused on feeding industrial water, in particular textile and ceramics sector. Second prototype is exclusively focused on feeding urban water.

After the design and construction of two prototypes, different tests have been done. In order to ensure proper performance of both prototypes, real samples coming from the mentioned sectors have been selected to put the prototypes into operation. With this action, problematic points have been detected in order to correct them and **optimize the pilot plants** as much as possible to avoid malfunctioning of the prototypes in real facilities.

The most important properties of all the components of both prototypes , brief description, **user instructions**, important warnings, start up and stoppage procedures, maintenance, points to check in case of malfunction and what measures have to be taken in order to solve the problems have been also fully identified and described.



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LIFE+ Environment Policy and Governance project application  
Project Policy Area: WATER  
**LIFE12 ENV/ES/000265**  
**Duration: 36 months**

Coordinating Beneficiary:



Associated Beneficiaries:



M O R A  
S P A I N