WASTE2COAG

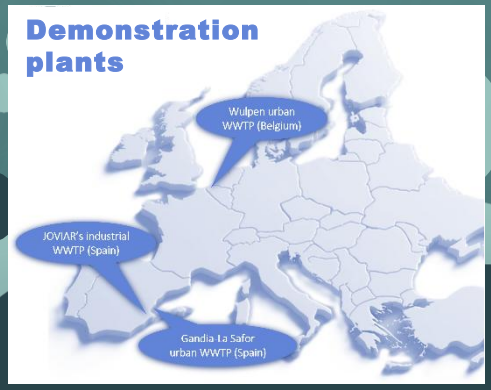
Brine and Metal Wastes Valorisation to Produce Coagulants for Wastewater Treatment

CONCEPT

The LIFE Waste2Coag project demonstrated an innovative and resource-efficient solution for brine and metal waste valorisation, producing sustainable coagulants for wastewater treatment. The solution is based on the Electrolytic System (ELS) technology and the coagulants produced can be applied in-situ for pollutant removal at both urban and industrial wastewater treatment plants.

Industrial scrap metallic wastes, generated by the metal industry, and brines, produced in desalination plants and industrial plants, were valorised. Therefore, the project created synergies between different industries and wastewater treatment plants, promoting a circular economy model.

Duration: October 2021-April 2026 (55 months)
Budget: €1,564,295 (55% EU funding)



PROJECT PARTNERS

The success of the 55-month project was ensured by a multidisciplinary and international consortium of 5 partners based in Spain, Belgium and United Kingdom

global omnium

AIDIMME TECHNOLOGY INSTITUTE

aquafin

isle

JOVIAR inyección de zamak

For more information, visit our website

www.lifewaste2coag.com

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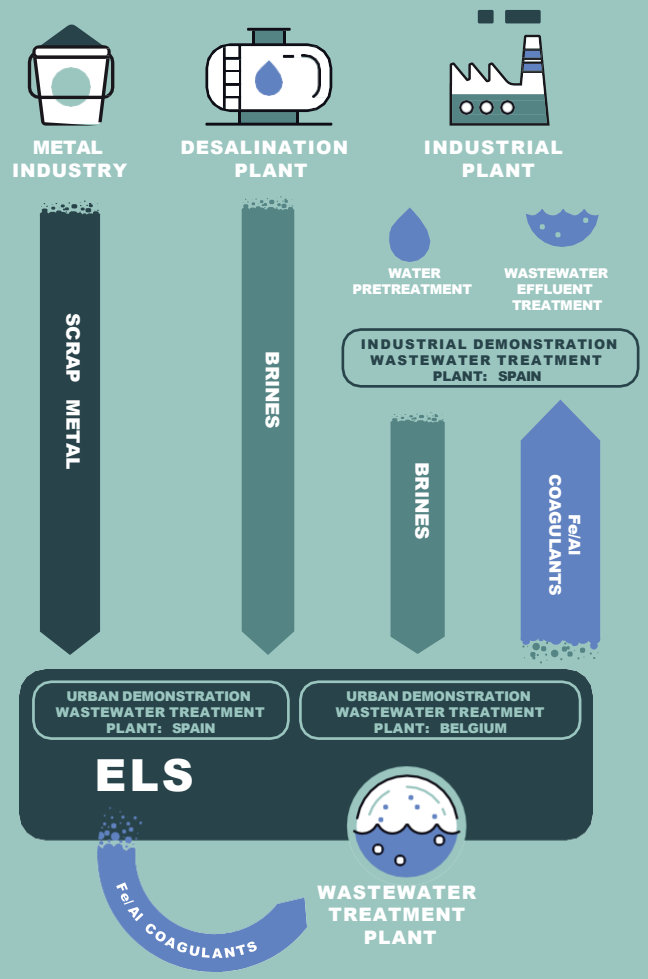
WASTE2COAG APPROACH
(CIRCULAR)



BRINES AND SCRAP METALS ARE VALORISED

Fe/Al COAGULANTS ARE PRODUCED ON SITE BY THE ELS

COAGULANTS ARE USED IN URBAN AND INDUSTRIAL WASTEWATER TREATMENT

INDUSTRIAL DEMONSTRATION PLANT

JOVIAR's facilities (Spain) – Production and validation of coagulants

0.86 m³
Brines valorised

6.2-13.2 kWh/kgFe
11.3-12.0 kWh/kgAl
Energy consumption

800-1,200 mgFe/L
300-900 mgAl/L
Concentration in coagulant

16.7 m³
Wastewater treated

URBAN DEMONSTRATION PLANTS

Gandia-La Safor (Spain) – Production and validation of coagulants

30 m³
Brines valorised

14.6 kWh/kgAl
Energy consumption

977 mgAl/L
Concentration in coagulant

3,588 m³
Wastewater treated

Wulpen (Belgium) – Production of coagulants

12.3 m³
Brines valorised

32.9 kWh/kgAl
Energy consumption

910 mgAl/L
Concentration in coagulant