



SCALIBUR PROJECT



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 817788

Scalable Technologies for Bio-Urban Waste Recovery

SCALIBUR

LEADING A REVOLUTION
IN BIOWASTE RECYCLING

Project Description

Current European biowaste management is not yet aligned with the circular economy roadmap proposed by the European Commission. Across the EU, over 100 M tones of biowaste are produced every year, being more than the 75% of this biowaste incinerated or landfilled, representing a cost as large as 143 billion of euros. SCALIBUR project presents an innovative concept to valorize three important biowaste streams: organic fraction of municipal solid waste (OFMSW), Hotel, Restaurant and Catering wastes (HORECA) and urban sewage sludge (USS) produced in waste water treatment plants (WWTP).

Within the H2020 SCALIBUR project, AQUALIA leads the Work Package that aims to a circular valorization process to obtain "ready-to-use" products operating high-innovative technologies, based on advanced anaerobic digesters and bioelectrochemical processes in Spain (SP) and Czech Republic (CZ).

The SCALIBUR project will optimize the use of dual anaerobic digested (two-phased temperature) in continuous operation to improve hygienization, obtaining high quality biosolids since the pathogen content is reduced in line with the new European regulations. Methane production and dewatering of the sludge will be also improved leading to energy-rich biogas production, and sludge volume reduction.

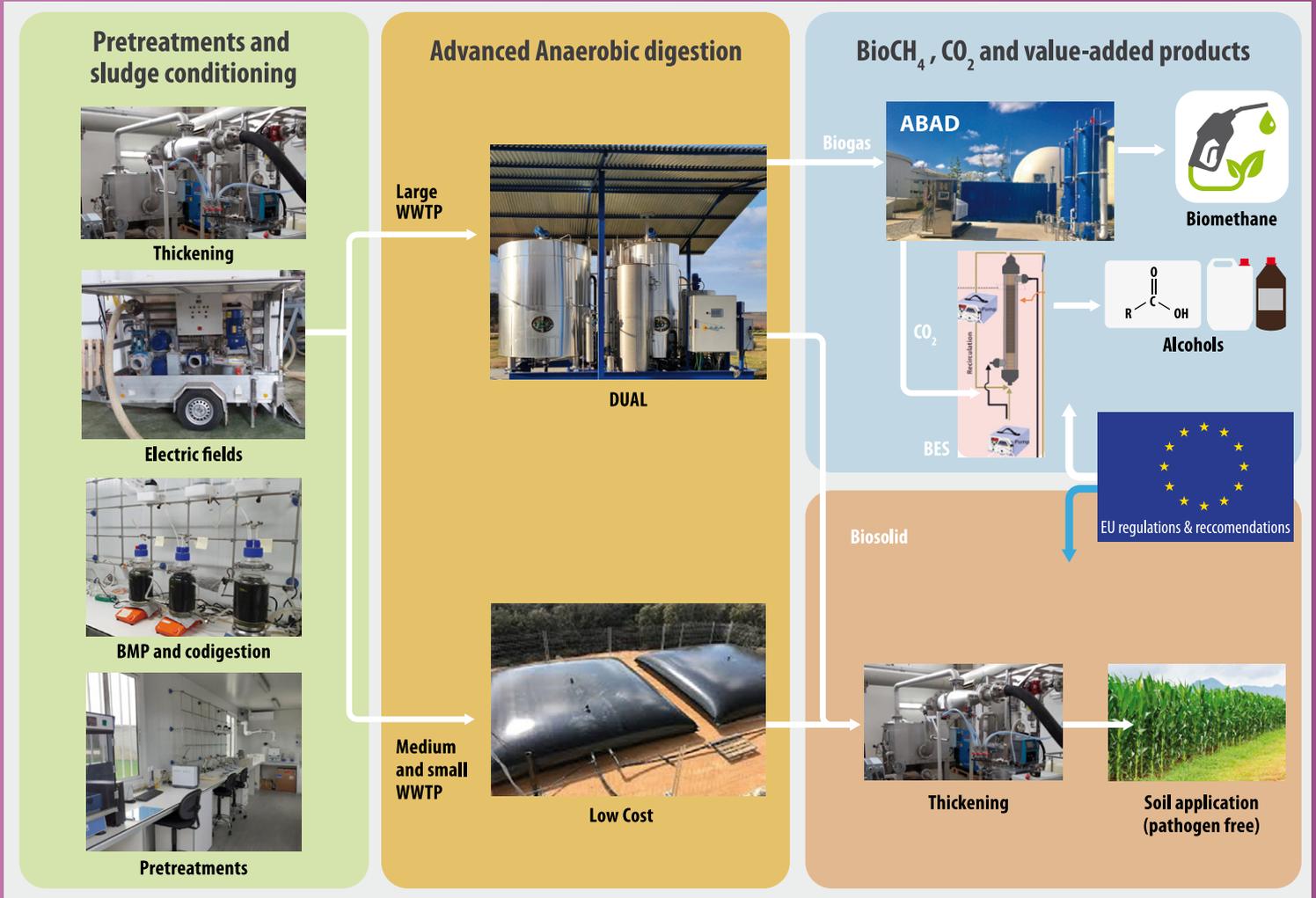
A low-cost digestion system will enable a sustainable sludge treatment for medium and small WWTP, achieving a reduction of sludge volume and ensuring an enhanced biosolids quality for land application. In addition, a biogas upgrading system, ABAD Bioenergy® developed by AQUALIA, will be installed in CZ to obtain vehicular biofuel, and the undesired CO₂ stream will be treated by bioelectrochemical reactors for the production of added-value organic products, mainly alcohols and acids. This system will also be tested in a waste valorization plant in SP.



Location: Estiviel WWTP (Toledo), Las Dehesas (Madrid) and Moravia-Silesia (Czech Republic)

Duration: From the 1st of November 2018 to the 30th of October 2022 (48 months)

Total Budget in Euro: 12,005,992.00 € **Aqualia:** 1,100,937.00 €



PROJECT PARTICIPANTS

- ITENE (Spain) Leader
- AERIS (Spain)
- ASA Spezialenzyme (Germany)
- CENER (Spain)
- CLUBE, Bioenergy & Environment Cluster (Greece)
- CSCP Collaborating Centre on Sustainable Consumption and Production (Germany)
- Exergy (UK)
- FCC Medio Ambiente (Spain)
- Greenovate (Belgium)
- Kour Energy (Italy)
- ANCI Lazio (Italy)
- City of Lund (Sweden)
- Madrid City Council (Spain)
- Novamont (Italy)
- Nutrition Sciences (Netherlands)
- Aqualia (Spain)
- Modena and Reggio Emilia University (Italy)
- IRIS (Spain)
- Wetsus (Netherlands)
- Brabantse Delta (Netherlands)
- Zetadec (Netherlands)



DETAILS OF FUNDING

- Funding:** Horizon 2020 Research and Innovation programme.
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- Project:** Grant agreement n° 817788
- Grant:** Subsidy of 70% of the budget.

This publication only reflects the author's view. The European Commission is not responsible for any use that may be made of the information it contains.

Funding Received

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Aqualia: 1,100,937.00 €