

## Almería embraces new technology to reuse water and reduce fertiliser costs

- The European project REWAISE shows how reclaimed water can transform local agriculture.
- The technology used can cut operational costs by up to 25%, while preserving essential nutrients from wastewater for crops.

### Almería, 23/10/2025

The Cuatro Vegas – Bajo Andarax irrigation area in Almería is becoming a hub for water innovation thanks to the European project REWAISE. In collaboration with local organisations, **a mix of desalinated and reclaimed water from the El Bobar wastewater treatment plant has been tested**. Early results are promising: a new technology called MEMB-RANER, based on anaerobic reactors, could **reduce operational costs by 25% and cut nutrient discharge into the environment by over 60%**, if all treated water is reused.

Aqualia has installed the AnMBR reactor at the El Bobar Wastewater Treatment Plant (WWTP) as part of REWAISE, aiming to **reuse water with low energy consumption**. The innovative MEMB-RANER technology improves water treatment, generates bioenergy and reduces sludge production. **The result is a stream of high-quality reclaimed water that retains nutrients like nitrogen and phosphorus**, making it ideal for reuse in agriculture, green spaces and urban parks.

REWAISE partners WE&B, the University of Valencia and Aqualia have **formed working groups in Almería, joining forces with local institutions and associations** such as the Provincial Council and City Council of Almería, the Water in Agriculture, Irrigation and Agri-food Chair at the University of Almería, the Aqualia Chair for the Integrated Water Cycle, the Almería Business Confederation (ASEMPAL), the Association of Fruit and Vegetable Producers of Almería (COEXPHAL), the Cuatro Vegas Irrigation Community, the Almería Solar Platform and the environmental consultancy Bioazul. Their goal is to **optimise water reuse in Almería and raise awareness of its benefits among the local population**.

**This initiative adds to other REWAISE activities**, such as a pilot in El Toyo where ultrafiltration membranes have been implemented for water reuse, expanding the REUSA platform and the [LIFE Phoenix](#) project. This technology has also been tested in other parts of Spain through projects involving Aqualia, such as [LIFE Ulises](#), [ULTIMATE](#) and [Sea4Value](#).

**As the driest region in Europe, Almería faces recurring water scarcity**, which worsens during periods of extreme drought. To tackle this ongoing challenge, the province has invested in **desalination**, with five major plants and a potential capacity exceeding 150 hm<sup>3</sup>/year.



In line with Regulation (EU) 2020/741 on water reuse, **efforts are also being made to incorporate reclaimed water into the region's water mix. REWAISE is opening the door for associations and local stakeholders to join workshops and meetings** aimed at promoting better water management in the area. The synergy between reuse and sustainable desalination shows that **Almería has the potential to become a benchmark for responsible water use.**

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### About REWAISE

REWAISE is a European project funded under the Horizon 2020 programme. With 24 organisations from 11 European countries and coordinated by Aqualia, REWAISE aims to create a new smart water ecosystem. This approach promotes efficient water use and the recovery of materials, energy and nutrients throughout the water cycle, unlocking the full value of water.

### About Aqualia

Aqualia is a water management company owned by the citizen services group FCC (51%) and the ethical Australian fund IFM Investors (49%). It is the fourth largest water company in Europe by population served and the ninth worldwide, according to the latest GWI ranking. Aqualia currently serves 45.2 million users and operates in 18 countries across Europe, the Americas, North Africa and the Middle East.

### About WE&B

Water, Environment and Beyond (WE&B) is a non-profit environmental research and consultancy organisation. It provides innovation, advice and new insights in the social, green business and policy spheres, leading and participating in research and innovation projects funded by the European Commission and multilateral development organisations.

### About the University of Valencia

The CALAGUA-UV group at the University of Valencia is made up of lecturers from the Department of Chemical Engineering. The group focuses on Environmental Technologies, particularly wastewater treatment. CALAGUA-UV has collaborated for three decades with national and international research groups on technologies for pollutant removal and resource recovery in both urban and industrial wastewater, as well as on control systems and simulation models for wastewater treatment plants.