ULTIMATE

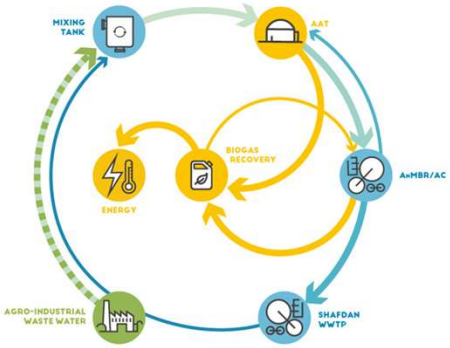
WATER SMART INDUSTRIAL SYMBIOSIS

TRANSITION FROM LINEAR TO CIRCULAR ECONOMY

in the nexus of the water sector & intensive water consuming industries.

CS6: SHAFDAN-IL

Combining anaerobic biofilm treatment with membrane filtration and activated carbon at Shafdan

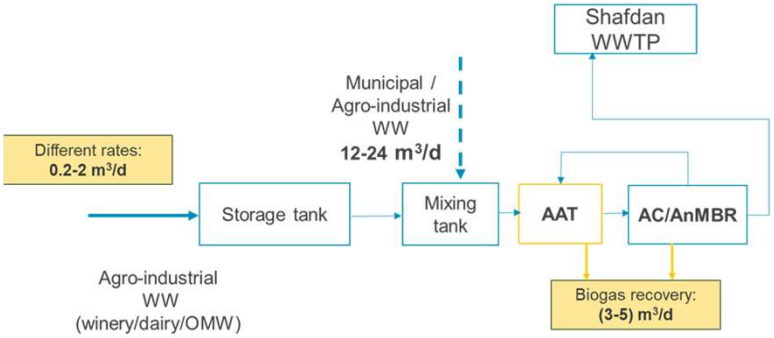


Objectives:

- Testing the efficiency of AnMBR based on combining anaerobic biofilm treatment (ABTM) with membrane filtration for higher biogas production (biofouling reduction/optimal operation) from mixed domestic and agro-industrial wastewater

Lead partner:

The Galilee Society

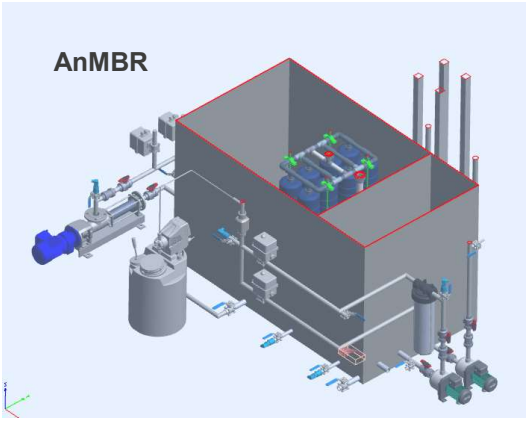


TRL: 5 → 7

Capacity: 12-24 m³/d

Quantifiable targets: : 3-5 m³ biogas/d; 20-25% reduction in energy demand; 25% energy recovery

Construction



Lessons learned from the construction and start-up

Preparing the infrastructure of the site for the demonstration system is crucial to meet the workplan and timetable

What is crucial in terms of replication of the technology?

- Cost effectiveness of the recovery of high-value products from olive mill wastewater (polyphenol and biogas)
- Proper storage management of agro-industrial wastewater
- Overcoming the local agro-industrial WW discharge regulation

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