Case Study

ADASA IN THE SPORE-MED PROJECT: WATER MANAGEMENT AND INNOVATION ACTION

CHALLENGE

According to the UN, 56% of household wastewater (WW) flows underwent safe treatment in 2020.

However, significant disparities are found across Sustainable Development Goals (SDG) regions, **with rates ranging from 25% to 80%**.

These findings highlight the uneven progress in sanitation made globally and **underscore the pressing need to build more wastewater treatment plants (WWTPs)**.

Moreover, the longevity of many assets and the challenges posed by climate change, water scarcity, increasing population, soaring energy prices and risks associated with emerging pollutants, **make it urgent to upgrade WWTPs with more sustainable technologies** that are not only able to treat WW but also provide us with valuable resources, goods and services.

This is **especially relevant in the Mediterranean region**, affected by climate change and water scarcity more severely than the world average.

Therefore, adopting sustainable **WW treatment practices is a vital step towards mitigating these challenges** and fostering the principles of a circular blue economy, ecosystem resilience, and economic growth.





Horizon 2020 Research and Innovation programme

adasa

ADASA'S SOLUTION

Adasa will contribute with the development of integrated on-line measuring device for **nitrates and phosphates** for the output of the WWTP, based on previously developed technology, by the integration in one device of both microfluidic systems for highly efficient water sampling and analysis in a small & compact format.

Also, in the Update of detection technology of **aquaBio on-line microbiological measuring device**, current one is based on LED measurement of absorbance and fluorescence, by replacing the measuring system with a CCD camera able to identify the changes in the reaction chamber faster and more selectively compared to the used system.





aquaBio, a device for measuring microbiological contamination indicators, is ETV-certified in Europe.

RESULT

SPORE-MED aims to enhance the environmental, economic and societal sustainability of WWTPs by developing and upscaling a combined set of innovative water treatment and resource recovery technologies, sensors, online measurement devices, sustainable agricultural practices, and health surveillance protocols.

At the core of the SPORE-MED, there is a holistic approach: we consider that the WWTPs of tomorrow will have to deal concomitantly with the complexity of the water-energy-food-health nexus, while addressing the challenges posed by the Mediterranean region, including addressing water scarcity, pollution, desertification, and reliance on external fossil resources.

Call: PRIMA - Call 2023 – Section 1 – Water Management; Innovation Action (IA) – Horizon 2020

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- Universitat de Sfax
- Università degli Studi di Salerno
- Adasa Sistemas, S.A.U.
- Universidad de Chipre
- GS INIMA Medio Ambiente,
- Universidad Politécnica Mohamed VI
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- Universidad Autónoma de Barcelona



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