Innovative Ecological on-site Sanitation System for Water and Resource Savings

Objective

- Integration individual low cost, sustainable and biologically based water sanitation technologies in multiple modular configurations
- Demonstration across 10 countries in 4 continents the long term viability of innovative, modular and sustainable solutions for wastewater treatment in real-environment and contribution to stimulating economic growth, business and job creation in the water sector both inside and outside Europe
- Eco-design and optimise the proposed solutions to increase the sustainable performance of the water sector through an optimised environmental performance

Technologies

- Assessment and validation the effective performance of the integrated "Lumbrifilter and Daphniafilter” system for wastewater treatment
- Bio-solar purification (BSP)
- Monitoring and Control through embedding sensors, software and connectivity in a modular system
- LED UV

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**Impacts**

- Enhancing confidence among end-users and stakeholders regarding the long-term sustainable benefits of the system in a range of realistic applications and locations
- Generating LCA positive impacts regarding chemical and resource use
- Reduced stress on and solution for the EU aging water infrastructure
- Reduced release of untreated/poorly treated wastewater and avoid CO2 emissions equal to 625 tons/year
- Improvement sanitation and health conditions in both rural and underdeveloped regions

**Ekodenge’s Role**

**Partner**

- Responsible for one demonstration site in Sinop (Turkey)
- Contributor to market and end-user requirements in WP1
- Contribution to dissemination (Middle-East)
- Linkages to commercial and voluntary SMEs and public bodies
- Support for LCA and LCC studies

**Partners**