

BURE MISIE

Expansion, filtration, disinfection, irrigation, monitoring for treated wastewater

Type of pilot measure:

Wastewater treatment

Location:

Nowy Klincz, Poland

Site:

Bure Misie Settlement

Applied solution:

Nanobubble oxygenation, hydrophyte biofilter, wastewater effluent irrigation, biomass valorisation and remote WWTP management

Treatment capacity:

15 m³/day

Utilisation:

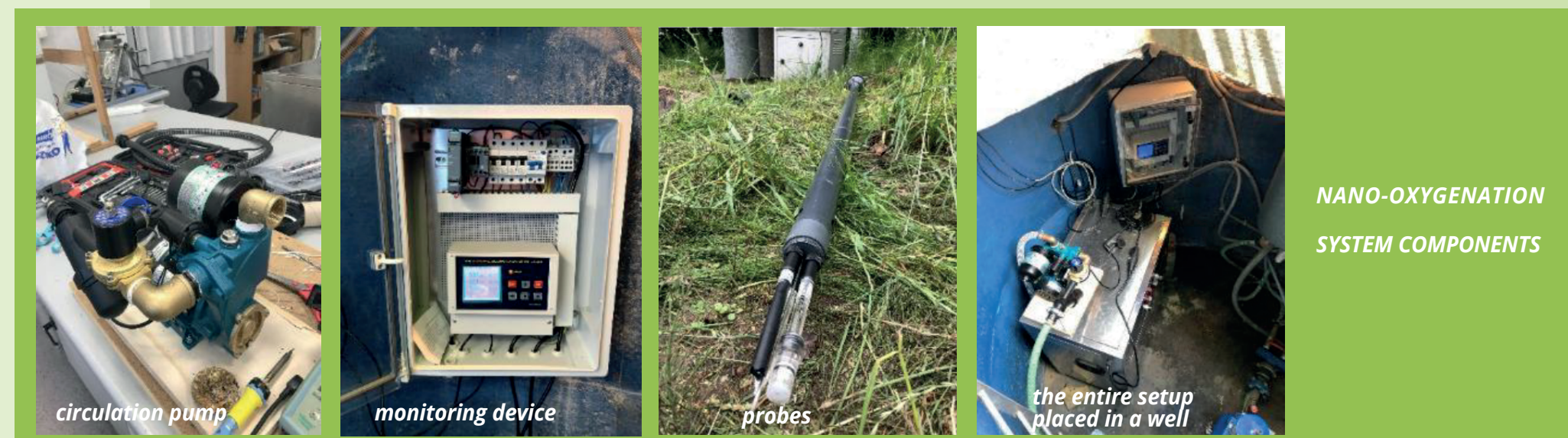
Treatment of domestic wastewater and pre-treated food-processing effluents

Responsible: Bure Misie Community Foundation

The wastewater treatment plant at Bure Misie Settlement in Nowy Klincz, Poland, serves nearly 50 permanent residents and experiences a strong seasonal increase in visitors. During peak periods, increased wastewater loads resulted in insufficient oxygen levels and reduced treatment performance.

A key element of the project was testing a Micro-Nano Bubble Generator, producing oxygen nanobubbles smaller than 100 nm. The system was introduced to improve oxygenation in the aeration chamber and compared with conventional aeration during the peak tourist season. Nanobubble aeration increased dissolved oxygen concentration by an average of 35%, demonstrating high oxygen-transfer efficiency. However, additional mixing is required to ensure adequate sludge circulation.

Additional activities explored hydrophyte biofilter treatment, wastewater effluent irrigation, biomass valorisation and remote WWTP management, addressing different aspects of wastewater treatment, resource recovery and system operation.



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www.interreg-baltic.eu/project/nursecoast-II