

TITLE: Use of recovered nutrients from decentralized wastewaters systems.

ORGANIZERS: Run4Life and Rewaise project. Project coordinator: Aqualia.

SHORT SUMMARY:

The efficient recovery of water, fertilisers, energy and other resources from wastewater is key for the transition to a circular economy. To facilitate the recovery of resources from used water, decentralized treatment of segregated streams is one option proposed by the H2020 project www.Run4Life-project.eu, and further explored by its follow-up activities in www.rewaise.eu focusing on a smart water economy.

In the case of the nutrients, the quality, and properties as fertilizers of the recovered products were tested in pot and field tests, and its safety analysed, to ensure that their properties fulfil end-user's requirements and expectations. Results from field tests in Run4Life and other related evaluations will be presented and discussed, together with end-users's perspectives from fertilizer companies, and other related stakeholders.

Challenges and opportunities will be discussed, in an interactive way, with the audience.

TARGET AUDIENCE:

Scientists and technologists interested in resource recovery and circular economy, more specifically in optimizing materials and energy flows of nutrients, and their application as fertilizers in agriculture.

PROGRAM (WITH TIMETABLE): 120 minutes. Date: 12 April from 10 am to 12 pm

<u>Opening</u>	5 min	Frank Rogalla <i>Coordinator of Run4Life. Aqualia. (Spain)</i>
The chair welcomes the audience and opens the workshop, describing its structure and goals. Panellists are introduced. Feedback from the audience is promoted after each panellist, and during the round table. Immediate visualization of the audience opinion will be shown, in order to facilitate and promote debate.		
<u>Run4Life Project.</u>	10 min	Nicolás Morales <i>Project Manager Run4Life. Aqualia. (Spain)</i>
General overview of Run4Life project and main results achieved during the 4.5 years of the project are presented, focusing on the decentralized reuse of water, energy and fertilizers		
<u>End-users perspective: quality and safety requirements of fertilizers from WW treatment - Pot and field experiments</u>	15 min	Annika Nordin SLU Swedish University of Agricultural Sciences <i>(Sweden)</i>
An overview of the product requirements for commercial fertilisers will be presented. Results from pot and field experiments with actual fertilizer products from Run4Life will be presented.		
<u>Hobby gardening: New options for products from decentralised collection of nutrients</u>	5 min	Ute Herrmann ASB Greenworld. <i>(Germany)</i>
Use of recovered fertilizers from decentralized treatment for hobby gardening		

<u>Taylor made fertilizers from H+</u>	15	Hamse Kjerstadius NSVA (Sweden)
First experiences from decentralized wastewater treatment project H+ in Helsingborg. Production of taylor made fertilizers: NPK pellets.		
<u>Nutrients recovery from AnMBR: Fertigation and concentration through Electrodialysis</u>	10	Ana Ruíz Martínez University of Valencia (Spain)
Direct use of liquid effluents from AnMBR can be applied in fertigation. The concentration of nutrients is essential prior to their recovery to achieve economic and environmental viability, and options of downstream		
<u>Removal of pathogen indicator micro-organisms and micropollutants during thermophilic treatment of black water</u>	10 min	Miriam Van Eekert Wageningen University (NL)
In a new (hyper)thermophilic anaerobic digester of blackwater collected by low flush vacuum sewers, a direct fertilizer product was created and evaluated for contaminant accumulations and fertilizer impact both on solids and liquid streams		
<u>Urine Separated Fertilizer : Collection and Use</u>	15 min	Jenna Seneca SLU (Sweden)
New development of a separative toilets for nitrogen recovery from urine and its use as fertilizer will be explored with first public demonstrations and field tests		
<u>Round table with the speakers and the audience.</u>	30 min	Javier Brañas Fertiberia (Spain)
Open questions and conflicting points of view related to the decentralised sanitation, resources recovery and fertilizer production from WW will be used as catalyst for debate, to identify opportunities and gaps in market applications.		
<u>Conclusions and closing remarks.</u> 4 min The Chair wraps up the main outcomes of the workshop.		