



less is
MORE

**Energy-efficient
technologies for removal
of pharmaceuticals and
other contaminants of
emerging concern**

Michael Cimbritz
Åsa Davidsson

Problem

- Increasing use of pharmaceuticals and other organic micropollutants
- Wastewater treatment plants are not designed to remove them
- Negative effects on aquatic ecosystems reported
- Problem related to drinking water resources

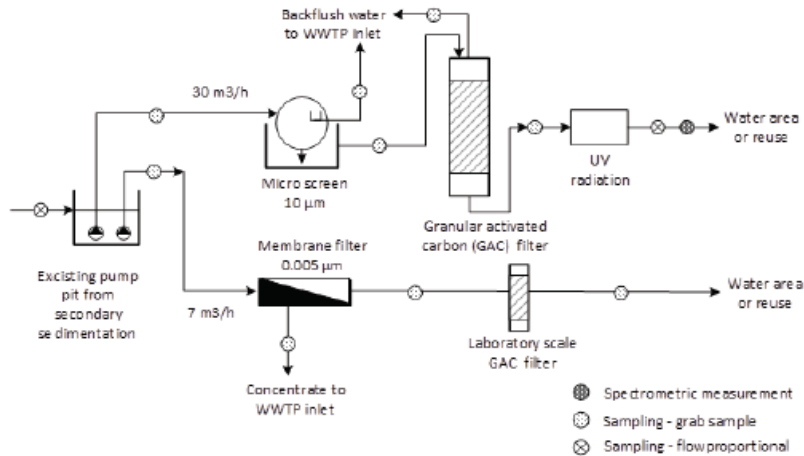


Objectives

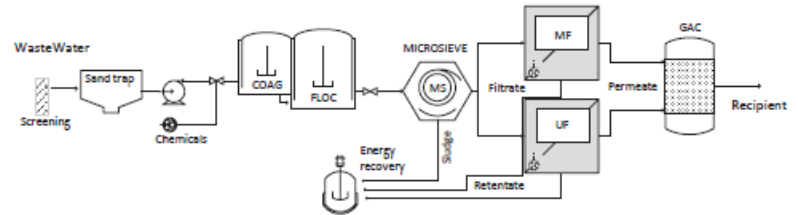
Long term objective: reduce input (of pharmaceuticals and other contaminants of emerging concern as well as antibiotic resistant bacteria) from wastewater to Baltic sea through upgrading of WWTP's

Specific project objective: Pilot testing to demonstrate, test and validate new technological solutions at small and mid-sized WWTP's and disseminate information to end-users

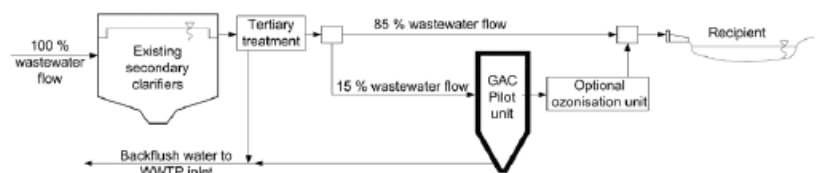
Technologies



Concept for pilot tests in Denmark



Concept for pilot tests in Sweden (Direct Membrane Filtration)



Concept for pilot tests in Lithuania

Partners

- Lund University, Department of Chemical Engineering (LP)
- Sweden Water Research AB (PP2)
- Kristianstad University (PP3)
- Slagelse Utility (PP4)
- Slagelse Municipality (PP5)
- JSC "Kretinga Water" (PP6)
- Gdansk Water Foundation (PP7)

Associated Partners

- Svedala municipality
- Lithuanian Water Supply Association
- Danish Water and Wastewater Association (DANVA)
- Swedish Water & Wastewater Association
- Swedish Agency for Marine and Water Management
- WIN – Water Innovation Accelerator

Time plan

Start: 2018-01-01

Planned completion: 2020-09-30

THANK YOU FOR YOUR ATTENTION!

CONTACT



LUND
UNIVERSITY

LEAD PARTNER
Lund University

Åsa Davidsson
asa.davidsson@chemeng.lth.se

Michael Cimbritz
michael.cimbritz@chemeng.lth.se



LESS IS MORE
ENERGY-EFFICIENT
TECHNOLOGIES FOR
REMOVAL OF
PHARMACEUTICALS
AND OTHER
CONTAMINANTS
OF EMERGING
CONCERN.