

Draft Project Title	Agriculture reuse and Aquifer recharge in EU
Short Description of the project idea and expected outcomes	<p>Water stress and scarcity increases in the EU as water supplies diminish while water requirements increase as populations continue to grow propelling the need for more water reuse. The selection of the appropriate treatment train to address Europe's water scarcity problem is required to meet agricultural needs, seawater intrusion challenges and indirect potable reuse applications. Furthermore, uptake of solutions by the market and wider use is still limited due to a variety of barriers which include but are not limited to: non existing or uniform reuse water quality standards, public acceptance of reused water, financial attractiveness vs. fresh water, education and guidance of the operating companies for technology selection, etc.</p> <p>The project shall address all aspects (not only technical) to support better market application and gain the widespread adoption and acceptance of water reuse.</p>
Main Objectives	<ul style="list-style-type: none"> -Map and identify country specific needs and obstacles for wider reuse - Define key quality parameters based on both personal health, industrial/agricultural/operational interests and environmental criteria - Develop robust quality online control concepts to assure permanent compliance to future regulations / guidelines - Focus on selected applications (recommendation: follow EU reuse policy works draft and select Aquifer recharge and agricultural reuse) - Develop treatment scheme to provide preservation/recovery of nutrients and demonstrate the effectiveness of current technologies to address water scarcity without the power requirements of desalination. -Assess current situation and obstacles on large scale ww treatment/reuse schemes (i.e Spain). Define issues for optimization to achieve full utilization (i.e La Gavia, Burgos). Collect and share best practices for successful models. - Conduct LCC/LCA comparison of viable treatment trains (incl. RO, GAC, Chlorine) - Provide guidance / selection criteria for different treatment trains - Inclusion of stakeholders (regulators, end-users, operators) - Develop public outreach campaigns in order to gain public acceptance of water reuse (modeled after previous successes in Singapore and California). - Develop classes/training for qualification of operators - Develop certified “reuse engineers” in dedicated courses (university, credit points)
Specific Objectives	<ol style="list-style-type: none"> 1) Pilot containing advanced treatment equipment that can connect to existing secondary wastewater 2) Pilot to include BAF, UF membranes, RO, Ozone, UV, AOP chemical dosing. 3) Pilot to test multiple process train to determine cost/benefit from a European perspective (e.g. typical power cost in EU, typical consumables in EU) 4) Designed for full public access and tours 5) Marketing strategy and program between all stakeholders to drive public acceptance of reuse
List of potential activities	
Expected impact on European level	<p>The project focuses on implementation of the coming EU reuse policy directive. It focuses on the reuse of municipal wastewater for Aquifer/ground water recharge and agricultural reuse applications in the European countries with the largest reuse potentials Spain, Italy, Greece, Germany, Sweden and Portugal. The expected impact of the project on the EU level is a harmonized Reuse practice and eliminated trade barriers in the region. By identifying the least expensive water supply alternatives with the lowest carbon emission will provide the highest level of integrated sustainable water management and will relieve pressure on water resources. These systems will reduce energy consumption (when compared to other reuse solutions as well as RO Desalination and water transport) and at the same time with reduce the risk of overdesign by using the agreed EU reuse water quality standards. The project will address all aspects (not only technical) to support better market application and gain the widespread adoption and acceptance of water reuse.</p>
Call identifier	CIRC-02-2016-2017
Full topic	Water in the context of the circular economy
	I am looking for a project leader/coordinator

Which kind of partner are you searching for?	Research Institute/University SME Public institution Infrastructure provider (Water boards), municipalities, microbiologists/ecotox experts, end-user (water boards, farmers), regulators
Title	Senior Process Eng.-Team leader R&D Treatment
Name	Aleksandra
Surname	Lazic
Telephone	+46737281195
E-mail	aleksandra.lazic@xyleminc.com
Organisation	Xylem Inc.
Description of the organisation	Xylem is a global water company that is a world leader in water technology, providing equipment and services for water and wastewater applications with a broad portfolio of products and services that address the full cycle of water — from collection, distribution and use to its return to the environment. Our strong product brands will continue to drive our business forward in moving, testing, analyzing and treating water for being distributed or reused in different applications. And reuse of water is the essential part of the Xylem's vision of best water management practice.