



Why water is key to unlocking a circular economy between utilities & industries



Gerard van den Berg, Coordinator of ULTIMATE and Project Manager of the International Research Programme at KWR

There is a critical mass of projects being assembled to accelerate the Water Circular Economy in Europe, with key learnings of interest to utilities across Asia.

While innovations unlocking resources from wastewater, including water, energy, and resources are encouraging, the needed link between water utilities and industries is often missing.

Two exciting European projects, being led by KWR Water Research Institute in the Netherlands, are linking together multiple stakeholders to accelerate knowledge transfer and help bridge this gap.

Under the ULTIMATE project, a total of 27 project partners have come together to create economic value and increase sustainability by valorising resources within the water cycle.

Co-financed by the European Commission, the four-year Horizon2020 project is being carried out under the EU Water in the Context of the Circular Economy programme.

In total, nine large-scale demonstrations across Europe have been selected for ULTIMATE, from the agro-food, beverage, chemical/petrochemical and biotech sectors.

Gerard van den Berg, coordinator of ULTIMATE and project manager of the International Research Programme at KWR, indicates that “besides developing sound technological innovations supporting the Circular Economy we will also look into partnerships between industries and water utilities and (co-)ownership of water service providers”.

A second project, NextGen, will drive the Circular Economy through a wide range of water-embedded resources, including water, energy and materials.

The four-year H2020 project brings together a partnership of 30 organisations to demonstrate technological, business and governance solutions for water in the circular economy.

From water utilities to a beer brewery, in total 10 NextGen projects have been selected to represent a variety of stakeholders who could participate and benefit from circular economy activities.

Christos Makropoulos, principal scientist, KWR, said, “Traditional, linear supply chains involving production, consumption and disposal have become vulnerable. Climatic changes, commercial competition and environmental degradation, are putting existing business models under strain.

“While solving each of these challenges on their own is very difficult, what if we could help to solve all three problems at once? Developing local, robust and transparent markets for water-embedded resources, including water, energy and materials can help to climate-proof the European society.”

As well as leading ULTIMATE and NextGen, KWR is involved in all relevant EU projects on circularity. Bridging science to practice, the organisation has expertise in creating new business models and values, involving stakeholders and identifying unknown risks in the transition to a circular economy.

Key findings will be instrumental in developing an EU Roadmap and will provide new insights that support wider uptake of circular solutions in the global water sector.

Jos Frijns, coordinator of NextGen and Resilience Management & Governance team leader at KWR, added, “To unlock resources and water in the circular economy, there is a need for innovative technology, business and governance solutions.

“A rejuvenation of local, national and regional economic activity could help towards economic growth with low environmental impact.” [WWA](#)



Christos Makropoulos, Principal Scientist, KWR



Jos Frijns, Coordinator of NextGen and Resilience Management & Governance team leader at KWR