

Nijhuis Saur Industries participates in Wetsus to develop sustainable water treatment technologies

Nijhuis Saur Industries signed a participation agreement in January 2023 with water research institute, Wetsus, to become part of Wetsus' research theme 'advanced coagulation for nanoparticles'. As part of the Dutch Topsector Water, Wetsus and companies like Nijhuis Saur Industries are joining to implement scientific research in the field of sustainable water solutions. With the participation of Nijhuis Saur Industries, research at Wetsus on chemical usage will be further promoted and translated into new solutions for industrial and municipal water treatment, resulting in lower costs and a reduced environmental footprint.

Reducing chemical use at water treatment plants

Nowadays, a lot of chemicals are used as a coagulant for drinking water and wastewater. These chemicals represent a significant element of operational costs in treating wastewater, frequently in the range of 10-30%, depending on the type of water that is treated. Investigating solutions to replace existing chemicals with more environmentally friendly water treatment chemicals, and reduce consumption of chemicals with smart solutions can dramatically reduce costs and the CO₂ footprint. This requires a detailed understanding of enhanced coagulation and flocculation processes. These insights can also help to develop new applications to treat water more efficiently.

Translating enhanced coagulation research into effective strategies

In the research theme "**advanced coagulation for nanoparticles**", Wetsus will improve mechanistic understanding of coagulation and develop enhanced approaches to optimize the removal of all kinds of pollution from water, such as micro and nanoplastics and micropollutants. These insights will be translated by Nijhuis Saur Industries into effective strategies to remove these components from water in a more cost-effective way at a low environmental footprint. A second partner within the research theme is the Austrian-based company, Keycycle. They will use their knowledge to develop new concepts for plastic recycling.

"By joining forces with Wetsus, we have direct access to a large network of scientific research" stated Wilbert Menkveld, Director of Technology and Innovation at Nijhuis Saur Industries. "When we better understand how the coagulation process works, specific (drinking) water challenges and systems wherein sedimentation, Dissolved Air Flotation (DAF) or membrane filtration are integrated can be optimized. In addition, we make our value-adding services available to Wetsus - such as our laboratory, pilot plants and experts in the field - to implement practical research into operation. Our #MissionWater movement is growing in the Netherlands and abroad to close the water loop. Our participation in Wetsus also raises awareness of a new generation of water experts and (PhD) students, who are more than welcome to join and start their career as #WaterChampions."

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About Nijhuis Saur Industries

Nijhuis Saur Industries, part of Saur, provides solid and adaptive solutions for sustainable and resilient water use, energy and resource recovery for Light and Heavy Industries, Utilities, and Commercial Buildings around the world.

With Nijhuis Saur Industries being mainly responsible for the Saur Industrial Water Solutions division, we deliver an extensive portfolio of innovative technologies, game-changing solutions, and added-value services to protect water resources. With our unique Customer for Life approach, we help industries, utilities, and cities to comply with 'reduce, remove, reuse and recover', closing the water loop.

We deliver innovative technologies, engineering and consulting services, mobile water solutions, EPC / DBFOM project execution and O&M site services. Our portfolio of water solutions is based on the extensive knowledge and experience of Nijhuis, Econvert, Unidro, Nortech, Riventa, PWNT, Byosis, Sodai, Flootech, Aqua-Chem and NSI Mobile Water Solutions.

www.nijhuissaurindustries.com

About KEYCYCLE GmbH

KEYCYCLE GmbH, a subsidiary of the EREMA Group, is a global provider of overall solutions for new plastics recycling projects and for system integration along the whole plastics recycling process. In the last two years, KEYCYCLE has also been commercializing a novel technology that is used for ink removal from waste plastics.

www.keycycle.at

About Wetsus

Wetsus, European centre of excellence for sustainable water technology, is a facilitating intermediary for trendsetting know-how development. Wetsus creates a unique environment and strategic cooperation for the development of profitable and sustainable, state-of-the-art water treatment technology. The inspiring and multidisciplinary collaboration between companies and research institutes from all over Europe in Wetsus results in innovations that contribute significantly to the solution of global water issues. Wetsus' scientific research program is defined by the private and public water sector and conducted by leading universities.

www.wetsus.nl/