



Happy Holidays and *warm wishes*
from everyone at Wetsus!

Wetsus News December

Agro2Circular

Recently, a new European project called 'Agro2Circular' started. This EU-wide project aims to recycle various agricultural waste streams, such as food waste, multilayer plastic waste and plastic films. To take the next step in recycling these, Wetsus will focus on the extraction of bioplastics from microorganisms. This research will be performed in Wetsus' Biopolymers from Water research theme. The researchers are investigating the production and use of polyhydroxy alkanates (PHA) from agricultural organic waste, organic-rich waste washing water, and organic residual sources, to form the basis of a biodegradable and renewable bioplastic. With the kick-off just completed, you can expect circular agricultural innovations from us as the project proceeds for the coming three years.

New Wetsus members

FB Oranjewoud (www.fboranjewoud.com) has become participant in the Soil theme. FB Oranjewoud aims to promote the Northern economy and identity by investing in companies that are of value to the Northern Netherlands and by improving the boundary conditions for the growth of these companies.

Paques Biomaterials (www.paquesbiomaterials.nl) participates in Biopolymers from Water.

The company uses natural microbes and processes to produce biodegradable PHBV biopolymers using the organic carbon present in waste streams.



Pure Water Group (www.purewatergroup.com) is now a participant in the Resource Recovery theme. Pure Water Group is a leading manufacturer of advanced and sustainable water purification equipment and highly specialized in environmentally friendly technologies such as Electro Deionization (EDI), Membrane Degassing (MD) and Electro Dialysis Reversal (EDR).

Royal HaskoningDHV [[http://\(www.global.royalhaskoningdhv.com\)](http://www.global.royalhaskoningdhv.com)] has upgraded from platform member to full participant in Phosphate Recovery theme. Royal HaskoningDHV is a Dutch independent consultancy firm with a strong water technology division.

Finally, Seekers Health Inc (www.seekerscentre.com) joined the theme Applied Water Physics. Inspired by their own research on VICUS water, a water specially treated with quartz and ozonation, their research focus is in line with the current projects of the

theme on the physical, biological and chemical effects of non-chemical, sustainable water treatment.

Wetsus call to new government

The coalition agreement of the new Dutch government has been presented and the new cabinet is about to take office. Wetsus is taking this moment to draw attention to our goal to ensure long-term financing. We made a short video to support this, you can find it here: [Twitter](#), [Facebook](#), [Instagram](#), [LinkedIn](#), [Wetsus website](#).

AquaBattery B.V awarded EIC Accelerator grant

AquaBattery B.V, a Wetsus spin-off, has been awarded the EIC Accelerator grant. The EIC (European Innovation Council) Accelerator supports individual SMEs, in particular startups and spin-off companies to develop and scale up game-changing innovations. AquaBattery calls the grant “a monumental milestone in our journey of developing the world's most sustainable energy storage solution.” Thanks to this grant, AquaBattery is enabled to accelerate and make a big leap towards delivering their saltwater-based flow battery to new partners and customers.



High school students Richt Schultz and Sjoerd Herfkens generated bioplastic from the Wetsus cantine's organic waste for their school project. Ángel Estevez Alonso, PhD

researcher from the theme Biopolymers from water, aided the two youngsters motivated to make the world a greener place.

Richt and Sjoerd produced fatty acids from coffee, fruit, and other residues of Wetsus merely using water and warmth. Subsequently, the enthusiastic duo used it as a feedstock to grow bacteria from municipal wastewater treatment plant on. These microbes naturally store their food as a polyhydroxyalkanoate – or PHA, a bioplastic. With a bit of help from Ángel, the students were able to make their own sustainable plastic and, on their own, an excellent report too!

REDstack Life Hyeward Project



Wetsus spin-off company REDstack – known for its sustainable energy generation out of fresh and saltwater – started a new electricity-from-brine project on the first of November, together with the Pure Water Group, and led by Sacyr water. The Life Hyeward Project aims to increase the sustainability of desalination processes through combining a conventional Reverse Osmosis (RO) process with Reverse Electrodialysis (RED) and thereby recover up to 20% of the desalination energy used, reducing the

environmental impact of the discharge, and improve overall efficiency. Starting at the Alicante desalination plant of Sacyr, the first experimental stage will be carried out with the support and collaboration of the Mancomunidad de los Canales del Taibilla. In the second phase, tests will be carried out to study the membrane fouling caused by wastewater at wastewater treatment plants.

Call for clean tech startups

BeStart is looking for climate tech startups who want to accelerate their success. Starting a business usually takes about five to seven years. For climate tech startups, it takes even longer as the markets are complex. BeStart specializes in climate tech: innovative tech in the fields of circularity, water, dairy, food, energy, agriculture and horticulture. This way, the accelerator helps clean tech startups to scale-up their business within one year's time.

BeStart is based in the North of the Netherlands and introduces you to the supportive and closely connected clean tech network in the region. Moreover, they offer you many opportunities to test and validate your clean tech in one of the many testlabs and they provide you with hands-on advice from experienced entrepreneurs. Interested? There is no time to waste, register your startup at www.bestart.nl/en/sign-up/. The pitch day for admission to the program is scheduled for February 18.

[Wetsus calendar 2022](#)

