

PhD candidate Rose Sharifian wins grants for spin-off company SeaO2

Soon defending Wetsus PhD candidate Rose Sharifian has won multiple grants for her start-up SeaO2 – aiming to pull CO₂ from seawater, rather than from the air. As we need to pull CO₂ from the atmosphere to get to pre-industrial levels of the greenhouse gas. Now, but after we complete the energy transition too. The idea for the company originates from Rose' research work at Wetsus. Rose has come up with a new way to generate acid and base that are essential in the process. Rather than using harmful additive chemicals, she has found a way to generate it renewably with electricity over a membrane. With her fellow founders she has been granted financial support from the prestigious Climate Kick Accelerator and the NWO's Faculty of Impact. In addition, she has won the WaterCampus business challenge 2022, and has received grants from the WaterCampus NEW-ttt project. A successful case of scientist turned entrepreneur.

Second European Water Technology Week: big success!

We can look back on a successful second European Water Technology Week. The traditional Wetsus Congress was part of the extensive program, covering topics from science and business. The plenary sessions as well as the parallel sessions were very well received by the 500 participants that we welcomed every day. The next EWTW will be held on September 23-25, 2024, and please mark October 9 and 10, 2023 in your agenda for the next edition of the Wetsus Congress.



A few highlights from this year's EWTW:

Carlo Belloni wins Marcel Mulder Award



The annual prize for the best innovation in Wetsus – the Marcel Mulder award – went to Carlo Belloni. Drs. Ed Nijpels, chair of Wetsus' advisory board, granted the young researcher the prize at the European Water Technology week 2022. Belloni has won €5,000 for his incredible patented material that is able to take up phosphate in minute concentrations. The research is of great importance to clean surface waters, valorize waste materials, and ensure European resource independence. The phosphate researcher was said to win the prize for his creative solutions in a high-tech field and his daring positive attitude that yielded such an innovative idea.

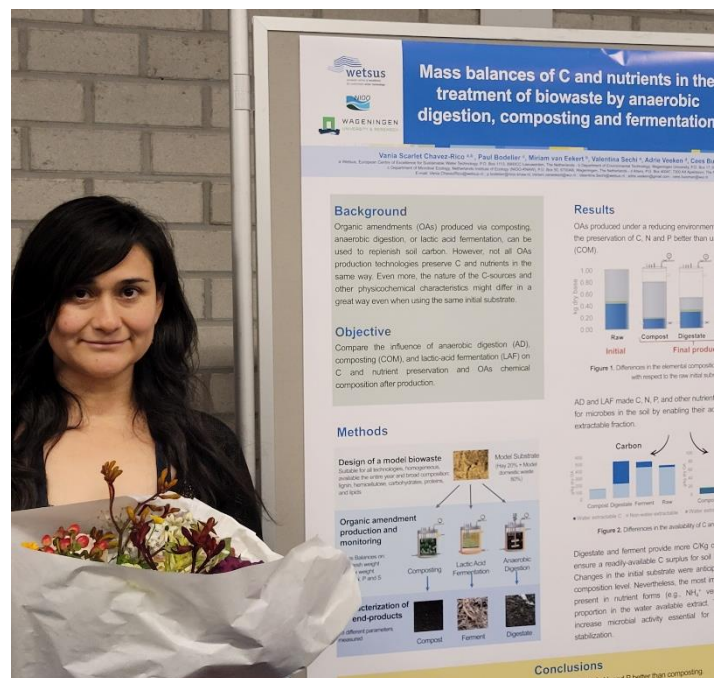
"We manipulated iron oxides, basically rust, to be better at recovering phosphate from water. Nowadays, the focus is mostly on large surface irregular crystals that can hold a lot of phosphate in their cavities. However, to target the ultra-low concentrations, we decided to take another approach: use the rust particles that are already good at strongly binding phosphate and intrinsically modifying them to hold even more," the researcher says. An adsorbent based on the combination of a specific iron oxide and manipulating technique is what he patented. "I still can't believe I won the prize," Belloni says. "And actually, it's not me. The whole phosphate team should win the prize. Without their help, I would have never gotten to this point. And the same goes for all the companies that support us." As for the prize money: "I would like to strike a bit more work-life balance. Working on my thesis has been challenging. After this, the research will continue, but I will spend the money on music instruments, perhaps to learn to play the guitar."

Poster awards

This year's best research posters in applied science and within Wetsus were won by Paolo Mendes Verras and Vania Chavez Rico, respectively. Both combined excellent research with illustrative storytelling to win the jury's hearts. Chavez Rico's research on using organic amendments in the soil to restore carbon and nutrients was opted as best due to her illustrative design. "Like the poster is trying to tell a story!" commented the jury. Similarly, Mendes Verras was selected for his clear and direct layout. His research – on using plants on the side of a building to filter and reuse water – was also well worded and understandable for a broader range of viewers. Both winners were awestruck by the award.

"I did not expect to win at all. There were so many great posters. In fact, I was about to not even go to the award ceremony." Mendes Verras says. "The prize money will be well distributed between the contributors and spent on the celebration." Chavez Rico: "I was completely caught by surprise! I couldn't make it to the presentation, and my research is on soil, not on water, so I figured I would just be disqualified instead." She intends to make even better posters for coming presentations by buying a license for a better drawing tool.

You can watch a video impression [here](#).





Heike Schmitt appointed as professor of 'Antibiotic resistance in the water cycle'

Heike Schmitt, senior advisor at Wetsus and senior researcher at RIVM, has been appointed as professor of 'Antibiotic resistance in the water cycle' within the Department of Biotechnology at Delft University of Technology (TU Delft). The chair will bring together TU Delft, RIVM and Wetsus (European centre of excellence for sustainable water technology) to conduct research into antimicrobial resistance in the water environment.

Heike Schmitt has worked at RIVM's Centre for Zoonoses and Environmental Microbiology since 2016, specialising in antimicrobial resistance. She is also a scientific advisor for Wetsus. The fundamental research she will be conducting in her parttime position at TU Delft builds on the policy advice and international work she has performed at RIVM since 2016, and her research at Wetsus.

Investor Readiness Programme 2022

There is a myriad of brilliant ideas in the water sector. But the big question is how to turn ideas into promising business models and to attract private financiers. That is where the Investor Readiness Programme comes in, with the Netherlands Water Partnership (NWP) as one of the initiators. The programme aims at connecting start-ups and scale ups with investors. It helps entrepreneurs to define their financing need and learn more about the world of investors and financing structures. And financiers are offered valuable options to fill their investment pipeline.

The Programme is an initiative of the Netherlands Water Partnership, Wetsus, Financing Table Water Technology and the Dutch Top Consortium for Knowledge and Innovation Water Technology.

[Read more.](#)

Two defenses in Leeuwarden



Thanks to the cooperation of Wageningen University, we were able to organize two defenses in Leeuwarden, on October 7. Mariana Rodrigues and Yujia Luo obtained their doctor title in the presence of family, friends and colleagues, in person and online.



Every other year, Wetsus organizes a reunion for all Alumni. This year, the group got together for an afternoon with our current Wetsus PhD's and to take the time to reconnect, with drinks and dinner. Of course, a group picture was taken!

Calender

- Date: 13-14 October 2022: [5th International Symposium on Physics of Membrane Processes](#)
- Date: 15 November 2022: [Financieringstafel in samenwerking met Investor Day Water](#)
- Date: 24 November 2022: [Wetsus Members Only Congress](#)
- Date: 30 November 2022: [Defense Rose Sharifian](#)
- Date: 26 January 2023: [Theme meetings and program board \(members only\)](#)