

HELIOREC SPECIALISES IN FLOATING SOLAR POWER PLATFORMS. FOUNDER AND CEO POLINA VASILENKO DISCUSSES THE BENEFITS OF THIS TECHNOLOGY, AS WELL AS HER EFFORTS TO ENCOURAGE MORE WOMEN INTO STEM CAREERS.

# A BRIGHT IDEA

PROJECT MANAGED BY: LIAM PYWELL

There is an old saying, “Necessity is the mother of invention.” Often a great innovation arrives when a problem needs to be solved. In the case of HelioRec, it answers a valid question that some organisations face- how can a company use solar power when the space and land for solar panels are not available? HelioRec was established by founder and CEO Polina Vasilenko in 2019. The company specialises in floating solar power plants and has recently completed a project at the Port of Oostende on the Belgian coast, as well as projects based around the EU.



Polina Vasilenko,  
Founder & CEO, HelioRec.

The floating panels are wind and wave-resistant. The patented “hydro-lock” feature provides extra stability without the need to include more ballast, thus cutting costs for materials such as metal or concrete. The power plants also use machine learning to predict energy generation for more efficiency and O&M optimisation. On top of this, the floating system is formed from recycled plastic, furthering its sustainability credentials.

**A COLLABORATIVE PROJECT**  
When establishing the company Vasilenko sought to put together a team, including some of the people she met while travelling extensively abroad. “I have travelled to over 68 countries. It is good as I have met new people, but it can be difficult with the team not in one place. Fortunately, Zoom calls and other technology have made this easier but overall it is a mixed bag” she states.

Vasilenko believes that a mix of energy sources is the key to long-term sustainability. “For sustainability we need to combine the different forms of energy we have available, preferably from clean sources of power.”



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In an industry dominated by global giants, research and development are critical for our competitiveness. A fully equipped laboratory allows us to quickly verify the results of new formulas and do the quality control of the products being manufactured. All in-house quality control is made under the ISO 9001:2015 standard certified by TÜV Sud.

At Chemitek®, clients and the environment are at the focus of every product we develop. We want to become the most customer-centric, innovative, and sustainable chemical company in the world, by committing to develop products that are biodegradable and environmentally friendly.

Our flagship product is Solar Wash Protect (SWP), an innovative and biodegradable solution developed for the cleaning and protection of photovoltaic solar panels, which improves cleaning efficiency and the profitability of solar resources. It is a unique product on the market, fully tested by the international laboratory TÜV Sud and approved by 12 of the 15 largest PV panel manufacturers in the world, as it reduces water consumption by 50%, cuts cleaning time, and increases energy production by up to 5% without damaging the solar panel.

It is also our innovative solutions productions such as Industrial Glass Protect (IGP) - a hydrophobic biodegradable solution that repels water, shampoo, stains, and all kinds of dirt from glass and non-porous surfaces (like tower racks, faucets, etc.), making it cleaner, and thus reducing cleaning time by up to 90% and water consumption by 50% -, Spill Control Pro – a biodegradable solution to clean oil residues, fuels, and other spills, thus preventing potential accidents – Car Wash Protect – a biodegradable innovative solution for deep cleansing of your vehicle, wax effect and UV protection – and Sani Protect – a powerful alcohol-free solution for disinfection of hands and all surfaces, tested and approved by dermatologists with a pleasant fragrance, among other solutions.



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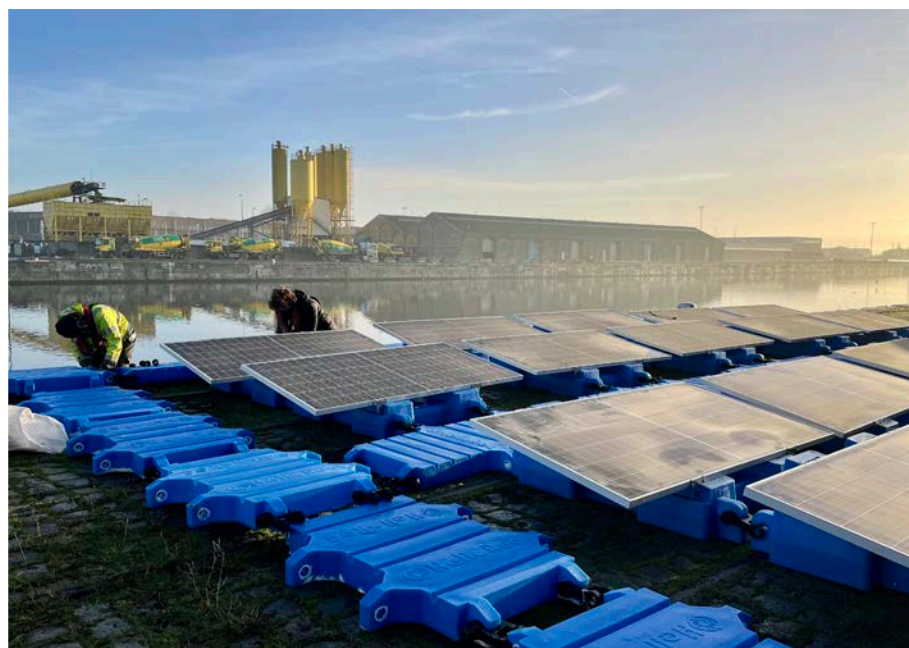
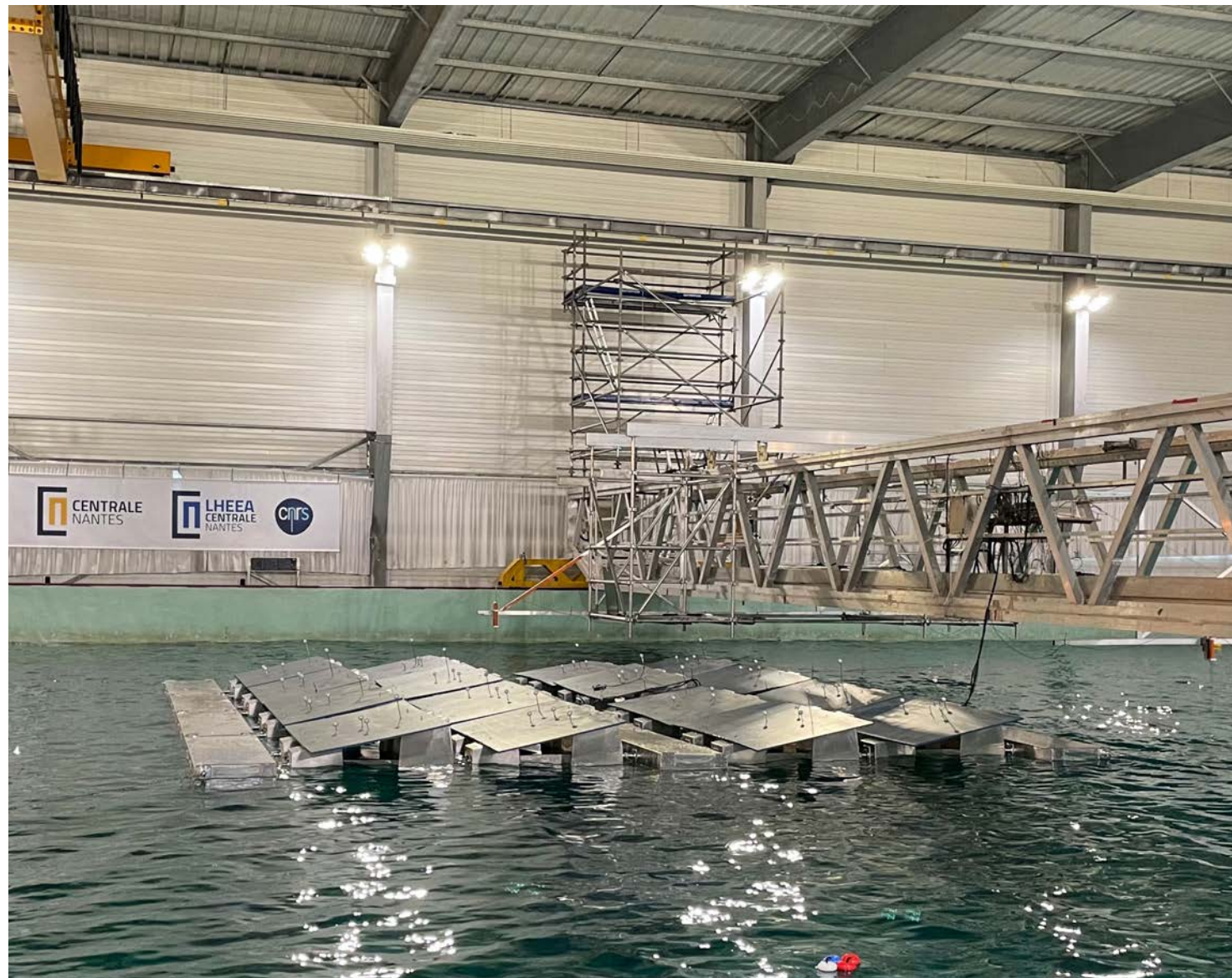
If there is no space, our floating solar panels allow people to take advantage of solar power” she explains. While the technology has clear benefits, it can also be difficult to pitch when it comes to seeking investment.

“We started the company in 2019 and in 2020 some projects had to be postponed for a year due to COVID-19. There is also the issue that developing hardware takes time, which can be difficult when it comes to seeking investors. It takes longer to scale up hardware, so this can worry investors and customers want to reduce risk where possible” Vasilenko says.

However, she is also confident that as there are more advances in floating solar panel technology, the more attractive the company will be to potential investors. »

“WE PRODUCE SIMPLE, POWERFUL FLOATING SOLAR POWER PLANTS.”





“As the technology becomes more developed, these challenges will disappear. We have recently completed some research and development activities, so this will make it easier when it comes to fundraising. We have also had meetings with some fundraising accelerators so this should help” Vasilenko further explains.

## GETTING THE MESSAGE

Initially, HelioRec benefited from people wanting to come on board, mainly driven by the environmental message of the company and the desire to further encourage a more sustainable alternative to fossil fuels. Vasilenko is encouraged by the passion people have shown, but this is not her sole consideration when looking at potential employees.

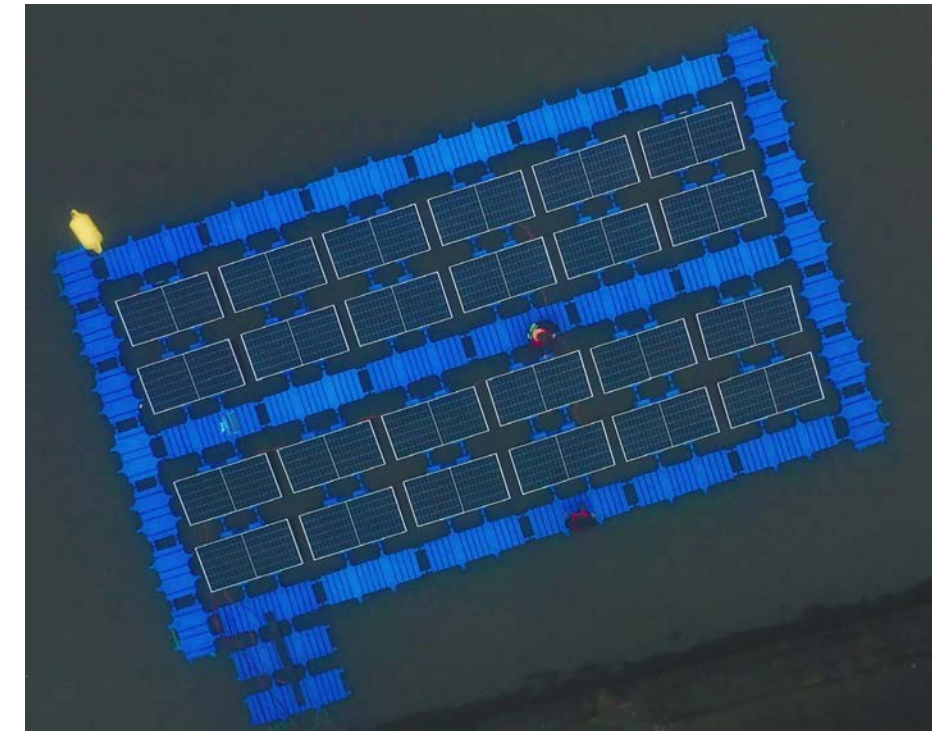
“When we first started, we did not have a lot of money. People came on board as volunteers. A lot of people were inspired by the message of helping the environment and wanted to make a difference.

Over time though, people did not want to do the work to make that happen.” she firmly emphasises.

Vasilenko believes that by focusing on the task ahead in addition to the underlying environmental cause, there is a lot of potential for HelioRec as a company to move forward. To achieve this, people who want to join the business must also be focused on getting results.

“Believing in the mission is not enough for new employees. The most important thing is doing the actual work which is most valuable for technology development. Once we start getting some results then the technology will develop faster,” she says.

Another important message that Vasilenko wants to highlight is encouraging more women into the world of STEM, an area where traditionally women may have felt uncomfortable and could benefit from people working to make this area of work more inclusive. “I am involved with Women in Tech, a French NGO. It is about encouraging women and making sure they are not scared to go into STEM work. Part of my role includes using my network to help women find work



and collaborating with them to see how we can provide further support” she details.

Among other things, Women in Tech provides mentoring schemes, advocacy and a talent hub, with a stated aim to empower five million women to embrace the technology sector by 2030. The organisation has chapters around the world.

Vasilenko has herself been recognised by Women in Tech, so she has reciprocated by supporting the organisation. “As a previous Women in Tech award winner, I feel it is important for me to communicate with the CEO and help with their activities where possible” she states.

## A BRIGHTER FUTURE

After the initial delays caused by COVID-19, more progress is being made by HelioRec as they work on more projects while considering further expansion, “We are looking to install more projects, around 10-50 kilowatts in size. We are also looking for more investors. In addition to this, we are looking at entering the US market” Vasilenko details.

As more countries look to achieve carbon emission targets and businesses consider ways to become more energy-efficient, HelioRec provides an additional solution for people who are looking to get the benefit of solar power while addressing the practical issues. ☺

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