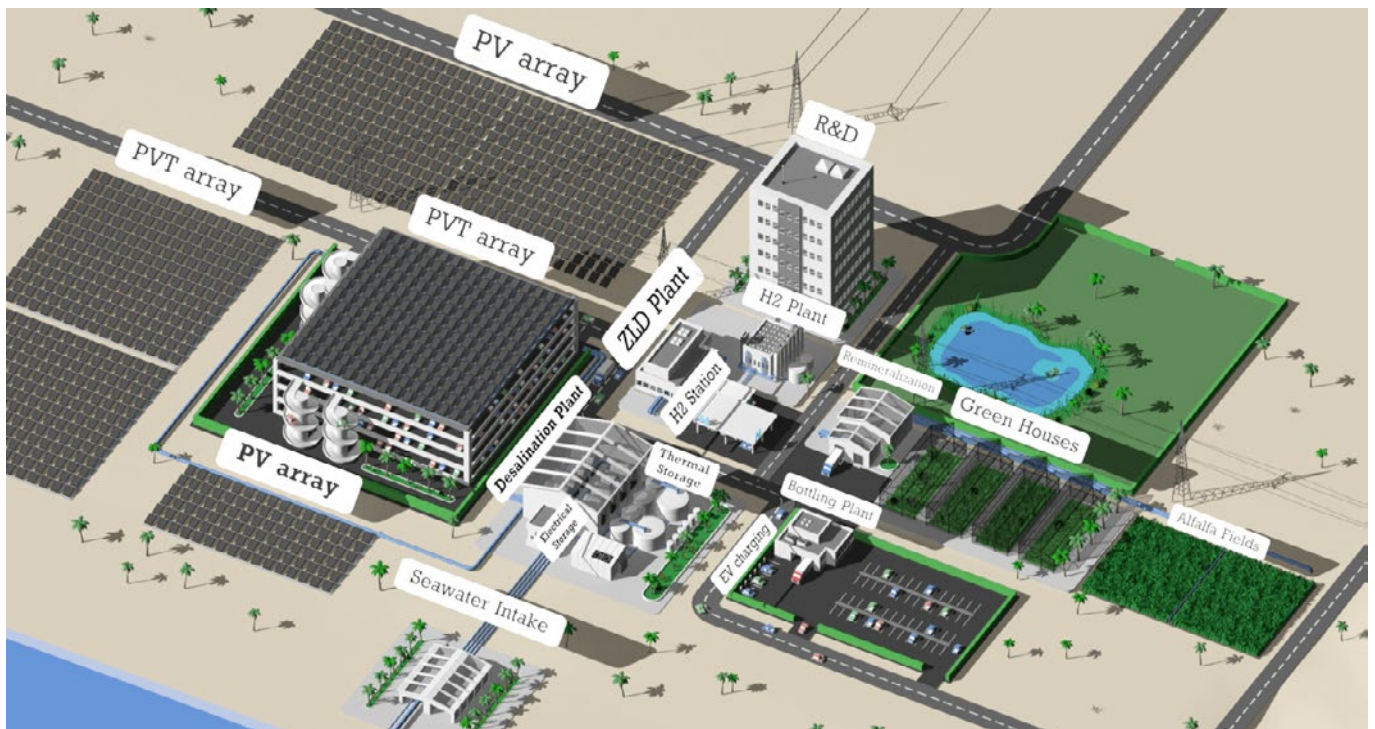


# *Desolocator*

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It is estimated that by 2030, half of the world isn't going to have a reliable water supply due to growing demand. One of the key challenges is an antiquated system, where inefficiencies create huge losses: for example, in the UK alone, three billion litres of water, or 20 percent of the total supply, is lost each day via leaks.

Desolenator is working on another problem, purification, and has patented a solar-powered process to create water at scale. By using a new technique for energy harvesting, it enables a more efficient, sustainable, and cost-effective supply of water for many parts of the world. We spoke to Madeleine Bell, working on Strategy and Special Projects at Desolenator.



*How are you working to tackle such a huge problem, particularly one with so many stakeholders?*

Access to water underpins everything people do. You have to get water right first if you want to make progress on anything from sustainable cities to education and employment to basic health.

We're not just trying to bring in new technology to business as usual. We had to dig down to the root of the problem. We're looking at the water landscape to see how we can change the current model, which purifies water at a centralised location, expends a lot of fuel and money getting to the end user, and creates pollution in the process. We also need to think about the water future we face as a planet, and how to plan for the very real impacts of climate change on water supply. Although not talked about much, these will be wide-ranging and significant, such as rising sea-levels slowly making freshwater sources unusable or storm surges which can overnight flood underground aquifers.

This is a challenge where all stakeholders need the same outcome: reliability. Keeping in mind all of these challenges, Desolenator could begin to design a process to overcome these, and differentiate ourselves from existing solutions.

**“We’re trying to make people look at levelised cost of water – capital expenditure and lifetime operating costs for energy maintenance, consumables supply chains, etc. When you look at long-term expenditure, you’re willing to make long-term investments.”**

### *How can a new system compete with well-established ones?*

This is multifaceted! Ultimately, you need to be solving a problem that customers face now and foresee getting worse in the future. You also need to be aligned on their vision for what the company can be, and those who see the opportunity from engaging with innovations. And of course, you need to show how the economics work out. In the water industry, often customers don't realise how much they are continually paying for water, from energy to consumables to waste disposal. It is a long and complex process and that increases the potential risks.

No customer exists in a vacuum, they are also part of systems which present risks and opportunities, from regulation to consumer and stakeholder expectations. If you can present a system that is more productive and efficient than traditional options, is reducing waste and is building resilience for the future, it is very compelling.



## *How are you using design to future-proof your business?*

As we see it, a design mindset is the only way to future-proof. A well-designed product has been developed through a deep understanding of its context and use. We've considered both current and future risks and created something that is resilient. For example, our distillation process is water-agnostic so it will purify a wide range of water sources. We also run water through our solar panels as part of the energy harvesting process, but this also prevents overheating and prolongs device life space.

Finally, our technology is more than just for clean water; it also creates a platform for other opportunities. For example, in our project in India we've designed a distribution model that engages the women in the community to operate the technology and distribute the water. We can create jobs and enhance lives as long as those ideas are brought in from the start of the design process. And we're also looking to supply next-generation agricultural companies with the water supplies they need.

You can read Bell's article *If you want to make progress on all the major global challenges, start with water*, published by the World Economic Forum, [here](#).

**“If you can prove that you are generating savings as well as environmental good, that's got to be the way forward.”**



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