

Making Waves: Why Venture Capitalists are betting on water technologies

Water scarcity is a growing global issue, affecting millions of people worldwide. As Europe braces itself for yet another drought, with more than a quarter of the continent in drought as of April 2023, we are in a precarious situation. Despite examples of extreme water stress from Cape Town to Southern Europe, water demand is expected to grow by up to 55% between now and 2050, driven entirely by unsustainable water management practices in industrial and domestic uses.

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There is a growing need for innovative solutions that address water scarcity, and as a result, VCs are beginning to actively look for startups to fix the problem. Historically, water tech funding has been more of a trickle than a flood with just \$470M allocated to water compared to the \$54B invested in climate tech in 2021.

Water Tech has always been slow – where the “move fast and break things” mantra doesn’t necessarily apply, long sales cycles with risk averse customers and cash-strapped water utilities are rather the norm. That said, the demand for innovation and the supply of innovation with great founders building robust and scalable solutions to critical water problems has never been high – adding up to an increasingly healthy operating environment for founders and investors. By investing in water technologies that improve water quality, reduce freshwater use, and generate water, investors can support solutions that have a direct impact

on people's lives, particularly across agricultural and industrial sectors.

Demand for innovative solutions

The demand for innovative solutions in climate technology is driven by the urgent need to reduce greenhouse gas emissions and mitigate the impacts of climate change. As traditional technologies and practices are insufficient to achieve these goals, there is a growing demand for new, innovative solutions that can help to transition to a low-carbon economy and promote sustainable development.

From atmospheric water generation and water treatment technologies to water-saving appliances and leak detection tools, there is a wide range of startups focused on addressing the global water crisis. These startups are leveraging cutting-edge technologies such as artificial intelligence, the IoT, and big data analytics to create sustainable solutions that help conserve and manage water resources more efficiently. As a result, VCs are seeing the potential for significant financial returns while also contributing to solving one of the world's most pressing challenges.

For example, *Puraffinity* is a materials technology company that has developed a proprietary polymer technology for the removal of micro-pollutants, such as heavy metals, from water. Their polymer material, (called Affinity) is highly selective and can capture specific pollutants at low concentrations. This technology can be integrated into existing water treatment processes and has the potential to significantly reduce the environmental impact of industries such as mining and electronics manufacturing. This could have a huge impact on traditional water treatment methods, providing a cost-effective solution to challenges such as high energy consumption and the generation of toxic waste.

Another innovative solution is *Kumulus*, which has developed a novel wastewater treatment system that uses bacteria and fungi to break down

pollutants and contaminants, producing clean water and biomass as byproducts. This sustainable and scalable approach could revolutionise the wastewater treatment industry and help to address water scarcity and pollution.

Disrupting the industry

The water industry has traditionally been slow to adapt to new technologies and business models, creating a significant opportunity for disruption and innovation. New market entrants have a significant opportunity to create value and impact in the water industry by introducing innovative technologies and business models.

For example, startups that leverage machine learning and artificial intelligence to optimise water treatment processes can provide more efficient and effective solutions than traditional methods. Similarly, digital water management tools that use real-time data to monitor water usage and detect leaks can help reduce waste and improve water conservation efforts. These new technologies and business models can create new markets, drive cost savings, and improve sustainability, making them an attractive investment opportunity for VCs.

One disrupter in the space is *NatureMetrics*, which has developed a pioneering technology that utilises DNA analysis to track and monitor pollution levels in rivers, providing faster and more accurate information on the health of aquatic ecosystems. This technology is disruptive to the industry because it offers a significant improvement over traditional methods of monitoring and tracking pollution in rivers, which can be time-consuming, expensive, and limited in their accuracy.

The traditional approach to monitoring water quality involves collecting physical samples from the river and analysing them in a laboratory, which can take several days or even weeks to produce results. In contrast,

NatureMetrics' DNA-based approach provides real-time data insights, allowing conservationists to quickly identify and respond to changes in water quality.

Climate change is water change. It is the medium through which we will feel the effects of the planet warming. The challenge and the opportunity to tackle broader challenges associated with water scarcity and water governance are colossal. VCs are taking bold action to support innovators that are reimagining humanity's relationship with water to solve the global water crisis and improve water system resilience.

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