

GEIC Partner Watercycle Technologies Secures Funding for Lithium Extraction Process

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Watercycle Technologies, a spin-out from The University of Manchester, has secured initial funding for an innovative technology that uses advanced graphene-based membranes and systems to extract lithium and other minerals from brines and water solutions.

Direct lithium extraction (DLE) is a vital process in the push towards self-sufficiency for the [UK](#) and Europe in lithium, a key component in modern battery technology.

Led by Sebastian Leaper, a former PhD student from the Department of Materials at Manchester, [Watercycle Technologies](#) has taken Tier 2 membership of the Graphene Engineering Innovation Centre ([GEIC](#)), with lab space and access to advanced 2D materials facilities and expertise in prototyping.

The pre-seed funding round has been led by Aer Ventures, an investor focused on innovations around sustainability.

Recovery from battery recycling

Watercycle Technologies has already demonstrated that its solutions can extract lithium from [UK](#)-based brines and can recover it from lithium batteries during the recycling process. This investment will allow the business to further develop their prototype solutions and test them at scale at live extraction and recycling locations.

The technology also shows the potential to refine the lithium up to battery-grade, which will allow the processing of battery-grade lithium to occur at production sites around the world. Together, these capabilities could significantly improve the environmental footprint of lithium

production for EVs.

Dr Sebastian Leaper, CEO of Watercycle Technologies Limited, explains: “Our lives are increasingly dependent on the ebb and flow of lithium ions. They store and transport an ever-greater portion of the energy we need for our devices, cars and power grid and enable us to transition away from fossil fuels.

“Access to significant quantities of low-cost, low-carbon lithium is fundamental to tackling climate change and we at Watercycle Technologies are striving to make this possible,” he adds. “We are very grateful for the support of Aer Ventures in this journey, as they share our ambition to help build a sustainable, circular economy for future generations to enjoy.”

Chris Rowley, Managing Partner of Aer Ventures, said: “Watercycle Technologies is exactly the type of business we exist to support. With a sustainable vision and a proven technology, the business has the potential to solve one of our major environmental problems – the need for critical minerals to support the transition to Net Zero.

“With serious commentators such as the International Energy Agency estimating the world could require over 50 times more lithium by 2040 than it produced in 2020, the innovation Watercycle Technologies provides has never been more essential and we are pleased to support the business in taking this game-changing technology to market.”

Andrew Wilkinson, CEO of The [University of Manchester](#) Innovation Factory, said: “This new University of Manchester spinout has amazing potential to significantly reduce the cost and environmental impact of lithium production. It also enables countries with access to lithium-rich brines and recycled batteries, like the [UK](#), to become self-sufficient in this strategically vital raw material. Although initially focusing on the extraction of lithium salts, Watercycle Technologies’ membranes and systems can easily be adapted to extract other high-value materials and be used in applications such as desalination.”

Read the [original article](#) on University of Manchester.

