



Brilliant Planet removes carbon from the atmosphere through large ponds filled with algae | Photo source Brilliant Planet

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GIANT ALGAE-FILLED PONDS SEQUESTER CARBON



SUSTAINABILITY

The ponds sequester 30 times more carbon dioxide per unit area than rainforests

Spotted: The past few years have seen a string of net-zero targets unveiled by some of the world's largest companies. As many of these organisations will need to rely on carbon offsetting to reach their goals, this has created an enormous demand for high-quality, scalable solutions that remove carbon dioxide from the atmosphere. These solutions come in all shapes and sizes – both nature-based and man-made. Now, UK company Brilliant Planet has developed one that has the potential to remove CO₂ at a gigatonne scale.

The company captures carbon through enormous open-air ponds situated on coastal desert land. These ponds are teeming with photosynthesising algae that remove excess carbon dioxide from the air.

Brilliant Planet's approach has a number of key benefits. First, it does not use fresh water, meaning there is no additional burden on water resources. Moreover, the ponds are situated in empty desert, employing under-utilised natural resources. The process also helps to de-acidify local coastal seawater.

Most importantly, the approach taken by Brilliant Planet is both cost-effective and verifiable – resolving a dilemma often faced by companies seeking to offset their emissions. "Nature-based solutions to climate change are normally the most scalable and cost-effective but it is often difficult to verify the amount of carbon removed by these methods," explains Brilliant Planet CEO Adam Taylor. "On the other hand, man-made solutions such as direct air capture can be easily verified but are prohibitively expensive," he adds.

Taylor argues that the company has found a way to deliver on all these requirements by delivering, cost-effectiveness and scalability in a way that is verifiable.

The company's approach has certainly impressed investors who this month awarded the startup \$12 million (around €11 million) in Series A funding. One participating investor, Toyota Ventures, pointed to the depth of the company's fundamental research – which has included four years of trials at its three-hectare research facility in Morocco.

Other carbon capture innovations recently spotted by Springwise include [liquid trees for urban environments](#), a [new plan for storing carbon under the sea](#), and a [startup that uses microbes to boost carbon sequestration](#).

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Takeaway:

The necessity of large-scale removal of atmospheric carbon has [recently been emphasised](#) by the Intergovernmental Panel on Climate Change (IPCC). Carbon removal is needed to compensate for the sectors that are particularly hard to de-carbonise – such as agriculture, aviation, and cement production. The key question being addressed by innovators such as Brilliant Planet is how to remove carbon quickly and cost-effectively in a way that can be easily tracked and verified. Solving this problem will not only help the planet – it will also provide a significant business opportunity. Union Square Ventures, which led the Brilliant Planet Series A funding round, explains that demand for carbon credits represents an, "opportunity for companies that can quickly scale carbon removal while meeting the quality standards demanded by sophisticated companies."