

Carbon Capture and the Concrete Industry

By: Rapid Access International, Inc.

May 2022

In a recent article, we wrote about bio-inspired concrete revitalization; an initiative by the US Defense Advanced Research Projects Agency (DARPA) that is focused on aged concrete edifices. The impact that concrete will play in our efforts to slow or reverse the effects of climate change is also not lost on the private sector.

On its official blog, Google recently posted a list of 11 startups working to combat climate change.¹ One of these startup companies is Boca Raton, Florida based Carbon Limit. The company is described as having developed green cement nanotechnology, turning roads and buildings into permanent CO2 solutions.

Carbon Limit

Carbon Limit Founder and CEO, Tim Sperry, briefly explains the company mission and technology on a video posted on the company website:

Our mission is to decarbonize the world, starting with the concrete industry. Our solution is turning concrete into a CO2 sponge. ...We created a technology that captures and stores CO2. Concrete made with our technology has the ability to attract, capture and store CO2 directly from the air into the concrete permanently – turning the roads and bridges we drive on, and the buildings we live in into carbon capture and storage solutions, also generating valuable carbon credit. This provides a massive opportunity to make a huge positive impact globally.²

To be sure, Carbon Limit is still at early stages. According to Crunchbase the company's most recent funding round was on February 21, 2022. The company raised an undisclosed amount of pre-seed funding from HG Ventures and 2 other investors.³

It is not clear at this point whether the company has obtained third-party verification for their technology, but this is something they were reportedly in the process of doing late last year.⁴ By all appearances, the private company has been moving full steam ahead through an accelerator program co-sponsored by Techstars and construction company The Heritage Group. This program gave the company an opportunity to work with The Heritage Group team and their R&D facilities. Notably, HG Partners is a segment of The Heritage Group.

¹ Titus, Jason. "Meet 11 startups working to combat climate change". Google Blog – Entrepreneurs. April 22, 2022. Available at: <https://blog.google/outreach-initiatives/entrepreneurs/meet-11-startups-working-to-combat-climate-change/>. Accessed on June 3, 2022.

² Carbon Limit Introduction Video. Carbon Limit Website. Available at: <https://www.carbonlimit.com/>. Accessed on June 3, 2022.

³ Carbon Limit Organizational Profile. Crunchbase. Available at: <https://www.crunchbase.com/organization/carbon-limit>. Accessed on June 3, 2022.

⁴ Kaminer, Riley. "The sky's the limit for Carbon Limit, a South Florida startup tackling CO2 emissions". Refresh Maimi. September 2, 2021. Available at: <https://refreshmiami.com/the-skys-the-limit-for-carbon-limit-a-south-florida-startup-tackling-co2-emissions/>. Accessed on June 3, 2022.

Going Forward

Sperry has explained the company's projected profit stream as three-fold: "We can sell a carbon credit, get paid by the government at the same time for offsetting atmospheric CO₂, and then sell that cement aggregate to concrete, cement, and asphalt companies."⁵

The next step for Carbon Limit is their participation in the Google for Startups Accelerator: Climate Change. The Google blog mentioning 11 startups working to combat climate change was a list of the companies selected to be a part of this 10-week accelerator program for Seed to Series A climate technology startups based in North America. The program kicks off in June 2022. Google further explains the program as follows:

It's designed to bring the best of Google's programs, products, people, and technology to the most innovative and impactful climate change technologists across the region. In addition to mentorship and technical project support, the accelerator will focus on product design, customer acquisition, and leadership development for founders.⁶

Carbon Limit's partnership with The Heritage Group was instrumental in the development of carbon capture technology specifically as an application for the concrete industry. This partnership is likely to play an important role going forward. The company's strategy and means of implementing that strategy is likely to strengthen through participation in the Google Accelerator program.

⁵ Ibid.

⁶ Google for Startups Accelerator: Climate Change. About the Program. Available at: <https://startup.google.com/accelerator/climate-change/>. Accessed on June 3, 2022.