

UNIVERSITY OF CONNECTICUT NET IMPACT GRADUATE CHAPTER

THE OFFICIAL MONTHLY NEWSLETTER

JANUARY 2021

Happy New Year!



(Michael M. Santiago/Getty Images)

For the first time since its inception in 1907, Times Square was not full of people on New Year's Eve. Limited amounts of people were allowed in the area and it was televised as planned. Many people welcomed the new year in the safety of their homes.

“The new year stands before us, like a chapter in a book, waiting to be written.” – Melody Beattie

Team Uconn Net Impact wishes you a great year ahead and welcomes 2021!

EXPLORING NEGATIVE EMISSIONS: A REFLECTION FROM SOCAP 2020

Written By: Zach Durst



The Baader-Meinhof Phenomenon is the phenomenon where you learn or become aware of something and it suddenly seems to pop up all over the place in your life. Since attending the Climate Restoration: Going Beyond Net Zero to Net Negative panel discussion at SOCAP 2020, I've been experiencing the Baader-Meinhof Phenomenon with negative emissions. It's led to some very cool discoveries.

In the Climate Restoration panel, Dr. Brent Constantz shared the work his company Blue Planet is doing to sequester carbon dioxide. The firm has brought together biomimicry and building material design to convert sequestered carbon into a concrete material, much like the bio-mineralization process used by coral. This product compares favorably to traditional concrete and has cradle-to-cradle net-negative climate impacts. It's exciting stuff, and I encourage anyone interested to check out Blue Planet's work at www.blueplanet-ltd.com.

Since that initial contact with net-negative carbon sequestration, it's a topic that I've encountered twice in other forward-looking technologies. By happenstance, my sister-in-law struck up a conversation about geothermal power in Iceland after watching Zac Efron's docuseries, *Down to Earth*, and how they put the naturally emitted chemicals from the thermal water back into the ground. After some research into Reykjavik Energy's CarbFix project, it's easy to see this technology expanding globally. The process does not require thermal energy, just the presence of basalt rock deep underground to trap the injected CO₂ rich water for remineralization into stone (1).



The Hellisheiði geothermal plant is run by Reykjavik Energy, and it powers more than half of Iceland.

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"Because basalt is a volcanic rock located all over the world, if Reykjavik Energy's CarbFix program catches on, it could make the process attractive way beyond Iceland, in places where electricity comes from burning dirty fossil fuels."
Credit:Ari Daniel/The World

My other contact with carbon capture technology came locally. Woodstock Sustainable Farm, owned by Ken Rapoport in Woodstock, Connecticut, is using recaptured carbon from energy generation to enrich the farm's soil. Using ClearStak ® (2) technology, the farm burns biomass fuel for heat energy and recaptures the emitted carbon in charcoal-like bricks which are broken down and distributed in the fields to support microbial ecosystems essential to keeping soil fertile and undegraded. All biomass burned on the farm comes from local deadfall timber or the removal of invasive species.

While climate change remains a wicked problem, it's exciting to see that no single strategy will be critical to achieving net-negative carbon goals. Instead, nations, industries, and individuals are all creating new technologies to assist. This is not only in the mitigation of carbon emissions, but in actively removing existing anthropomorphic carbon from the atmosphere and sequestering it back in the earth or in products.

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1. Daniel, Ari. "In Iceland, turning CO2 into rock could be a big breakthrough for carbon capture." The World , May 3, 2019, <https://www.pri.org/stories/2019-05-03/iceland-turning-co2-rock-could-be-big-breakthrough-carbon-capture>, Accessed on Nov 20, 2020.
 2. Clearstak LLC is a Putnam,CT company owned by RenewTech Holdings, LCC and accessible at www.clearstak.com

2021 CASE COMPETITION COMING SOON.....

Please check our page for upcoming updates!

<https://gradnetimpact.business.uconn.edu/case-competitions/>



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