

## Company Overview

[Solidia Technologies®](#) is a cement and concrete technology company that helps manufacturers produce superior building and construction materials using low-carbon cement and concrete.

The production of cement, the “glue” used to make concrete, is the world’s second largest emitter of CO<sub>2</sub>, responsible for ~8% of global industrial emissions. For every ton of cement produced, a ton of CO<sub>2</sub> is released into the atmosphere. Global demand for concrete products is second only to the demand for water, and population growth and urbanization is driving up demand.

The \$1 trillion global concrete and \$300 billion cement markets are among the few large enough to make a meaningful impact fast enough on carbon. Solidia’s manufacturing systems both reduce CO<sub>2</sub> emissions and consume carbon.

Leading investors committed to advancing low-carbon solutions for industry support Solidia. They include [Imperative Ventures](#), [Zero Carbon Partners](#), Canada Pension Plan Investment Board ([CPP Investments](#)), [Breakthrough Energy Ventures](#), [Prelude Ventures](#), [PIVA Capital](#), John Doerr, [BP](#), [OGCI Climate Investments](#), Bill Joy, [Kleiner Perkins](#), [BASF](#) Venture Capital, [LafargeHolcim](#), [Total Carbon Neutrality Ventures](#), [Air Liquide Venture Capital \(ALIAD\)](#), and other private investors.

By changing the chemistry of cement, Solidia enables manufacturers to produce cement in their existing kilns, but at lower temperatures and using less limestone, saving energy and reducing greenhouse gas emissions by up to 30%. Solidia Cement™ reacts with CO<sub>2</sub> instead of water. Solidia’s concrete curing technology permanently and safely consumes up to 240 kg of CO<sub>2</sub>, leaving 3-5% of the finished precast product weight as solid CO<sub>2</sub>. The water used to form the concrete products can also be recovered. Unlike traditional ordinary Portland cement (OPC), Solidia precast products can be recycled before curing, potentially eliminating tonnes of concrete landfill waste every year at scale.

Currently sold in the US, Solidia Concrete™ precast products are higher performing, cost less to produce, and cure faster than OPC-based concrete products. They offer a variety of benefits, from a wider and more vibrant range of colors to a complete lack of discoloration from efflorescence. Our technologies use the industry’s existing infrastructure, raw materials, formulations, production methods, and specifications.

Our technologies will be deployed at cement and precast concrete plants around the world, with manufacturing facilities currently in operation in North America and Europe. Three precast applications, including pavers and blocks, are currently in market. We are developing commercial processes for reinforced applications, including aerated concrete, railroad ties, architectural panels, and hollow core extrusions.

We are also developing applications for ready mix, with the first currently in tests with third parties.

Our global patent portfolio includes 20 allowed patents, 159 issued patents, and over 375 patent applications pending around the world. The strength and durability of Solidia Concrete has been verified according to all market standards: ASTM, AASHTO, EN and CSA. We are also partnering on new digital

products and a third-party auditing platform that will allow companies and municipalities to quantify, verify and claim the carbon, energy and water benefits of Solidia Cement and Solidia Concrete.

All tests are verified by third parties, including our R&D collaborators who include:

**From industry—**

- [LafargeHolcim](#), a leader in the building materials industry, with a local presence in 90 countries; and,
- [Air Liquide](#), a leader in industrial and specialty gases.

**From government—**

- [U.S. Department of Transportation's Federal Highway Administration](#), with a Cooperative Research and Development Agreement (CRADA) for infrastructure applications at the [Turner-Fairbank Highway Research Center](#);
- [U.S. Department of Energy's National Energy Technology Laboratory](#) (NETL), which has co-funded a four-year R&D project as part of its [CO<sub>2</sub> Storage Program](#); and
- [U.S. Environmental Protection Agency](#), which supported Solidia under Phase I of the SBIR Program.

**From academia—**

- [Rutgers University](#), where the original generation of the technology was developed;
- [Purdue University](#);
- [Ohio University](#); and
- The [University of South Florida](#).

Production methods of cement and concrete haven't changed significantly in nearly 200 years, making the industry an attractive target for disruption. Solidia helps cement manufacturers meet or exceed emissions reduction goals articulated by the [Global Cement and Concrete Association](#) (GCCA). Other large CO<sub>2</sub> emitters will also welcome Solidia's CO<sub>2</sub> utilization technology as a means of mitigating carbon taxes.

Based in Piscataway, N.J., our team of over 70 scientists, engineers and business leaders, has wide connections in the construction and building materials industries and extensive experience in new product and market commercialization, IP, and simplified manufacturing.

Honors include: 2021 [Fast Company Best World Changing Idea](#); 2021 [Solar Impulse 1000 Efficient Solutions](#); 2021, 2020, 2019, and 2014 [Global Cleantech 100](#); 2020 and 2014 [Best Place to Work in NJ](#); 2020, 2019 and 2018 [BP Advancing Low Carbon](#) accreditation; 2017 [ERA Grand Challenge](#) Second Round Finalist; 2016 [Sustainia 100](#); 2015 NJBiz [Business of the Year](#); 2013 [R&D Top 100](#); 2013 [Katerva Award](#) finalist; and [MIT's Climate CoLab](#) shortlist.

Follow us at [www.solidiatech.com](http://www.solidiatech.com) and on [LinkedIn](#), [YouTube](#), [Instagram](#) and Twitter [@SolidiaCO2](#).