Australia's Mineral Carbonation startup hopes to put sequestered carbon to use by turning it into materials for building.

Carbon sequestration – whereby carbon dioxide is stored underground in order to reduce its presence in the atmosphere and its effect on global warming – has become much more widely known in the last few years as governments scramble for solutions to climate change. Researchers in Australia have now formed Mineral Carbonation, a startup that hopes to put sequestered carbon to use by turning it into materials for building.

The project is a joint venture between the University of Newcastle, chemicals firm Orica and the GreenMag Group. Having received funding of AUD 9 million from the Australian government, the group will now begin to develop its process of small scale mineral carbonation, which traps the gas inside units small enough to be used in the construction industry. The technique mimics the earth’s natural carbon sink phenomenon that creates inert carbonates from minerals such as magnesium and calcium silicate. As Professor Bodgan Dlugogorski from the university explains: “The key difference between geosequestration and ocean storage and our mineral carbonation model is we permanently transform CO2 into a usable product, not simply store it underground.”

The Mineral Carbonation project joins Lignacite’s Carbon Buster building block in the race to develop construction materials that can help the environment, rather than damage it. Could other eco-friendly products be created using CO2 as a component?

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