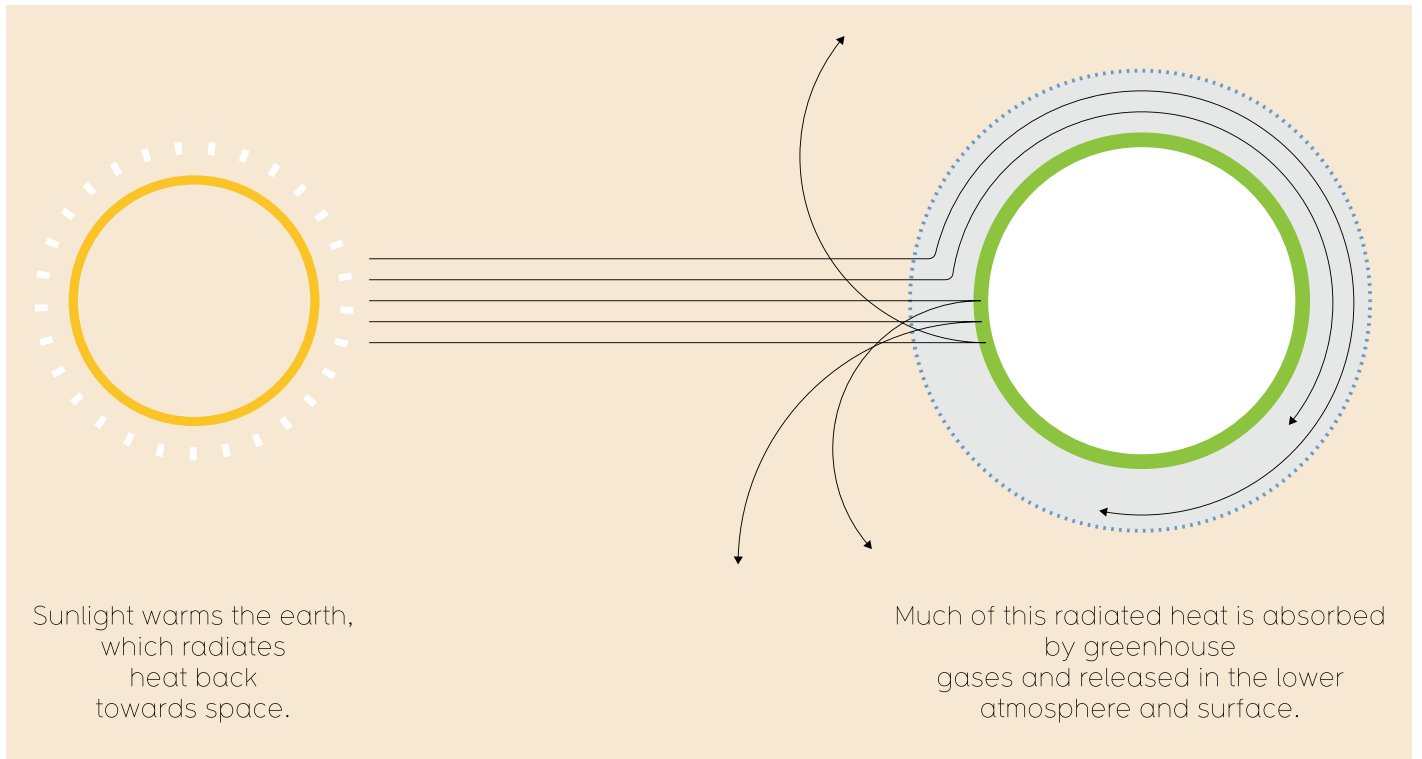


**CLIMATE CHANGE AND GLOBAL WARMING**

Temperatures on earth have warmed roughly 1.33°F (0.74°C) over the last century, according to the Intergovernmental Panel on Climate Change.<sup>1</sup> More than half of this warming—about 0.72°F (0.4°C)—has occurred since 1979. Ninety-seven percent of climate scientists agree that climate-warming

trends over the past century are very likely due to human activities, and most of the leading scientific organizations worldwide have issued public statements endorsing this position.<sup>2</sup> Levels of carbon dioxide (CO<sub>2</sub>) have reached concentrations not seen on earth for millions of years.



**CO<sub>2</sub> and Global Warming**

When the earth is warmed by the sun, the outgoing heat normally rises and dissipates back into space. However, greenhouse gases in the atmosphere act as a barrier to the heat, essentially trapping the heat close to the surface of the earth. CO<sub>2</sub> and methane comprise most of the greenhouse gas emissions believed to contribute to global warming. Burning fossil fuels to produce energy, as well as industrial output and deforestation, all contribute in varying degrees to the abundance of these emissions.

**Climate Change vs. Global Warming**

Climate change refers to the natural fluctuations in Earth’s temperature over time, which includes major changes in temperature, precipitation, or wind patterns, among other effects, that occur over several decades or longer.

Global warming is the accelerated warming of Earth due to an increase in greenhouse gases in the atmosphere, particularly from burning fossil fuels. Global warming is causing climate patterns to change. However, global warming itself represents only one aspect of climate change.

## Lowering CO<sub>2</sub> Emissions

Lowering CO<sub>2</sub> emissions can help reduce greenhouse gas pollution. Reducing worldwide dependence on fossil fuels and increasing the use of clean, renewable energy is the cornerstone of greenhouse gas reduction. Many industries are proactively instituting sustainability practices to reduce the amount they contribute to CO<sub>2</sub> levels. Government leaders across the globe are enacting tough emission restrictions to curb the emission of greenhouse gases. Experts say it will take all these efforts and more to stop the damage to the environment caused by greenhouse gas pollution.

## Can CO<sub>2</sub> Mean Green?

At Solidia Technologies, we envision a world where CO<sub>2</sub> means green and sustainability is an engine for profitability and growth. We are a sustainable technology company with a patented scientific process that makes it easy and profitable to use CO<sub>2</sub> to create better building, construction and industrial products. Our process sequesters CO<sub>2</sub> by injecting it into concrete during the manufacturing process, transforming CO<sub>2</sub> into a usable element that gives large- and small-scale concrete producers a competitive edge. The result of this leading-edge technology is the potential to reduce the CO<sub>2</sub> output of cement by 70%, paving the way to a cleaner and more sustainable planet for future generations.

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### Additional Resources:

#### **United Nations Framework Convention on Climate Change**

**A summary of current climate change findings and figures.** United Nations Environment Programme, 2013.

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1. Intergovernmental Panel on Climate Change. <http://www.ipcc.ch/>

2. NASA. <http://climate.nasa.gov/scientific-consensus>