# Giant CO2-Sucking Vacuum Activated in Iceland to Combat Climate Change



### Giant CO2-Sucking Vacuum Activated in Iceland to Combat Climate Change

In Iceland, a new plant named “Mammoth” has been activated with the goal of addressing climate change by removing carbon dioxide (CO2) from the air. Developed by Climeworks, this facility utilizes massive steel fans and modular collection chambers to extract CO2 from the atmosphere, dissolve it in water, and pump it deep underground where it eventually turns into stone through chemical reactions with basalt rock.

Construction on the Mammoth began in June 2022 and the plant became operational recently. It uses energy from a nearby geothermal power plant to operate. Currently, only 12 of the planned 72 collection chambers are active, with plans to increase this number throughout the year. Once fully operational, the facility aims to capture 36,000 tonnes of CO2 annually, although this represents only a small fraction of global emissions.

This direct air capture technology, while rapidly progressing, faces challenges related to scalability and cost. Climeworks has set a target to reduce the capture cost from the current $1,000 per tonne to $100 per tonne by 2050. The company has already sold credits for the offset of 100,000 tonnes of CO2.

Proponents argue that technology like Mammoth is essential to providing a buffer while transitioning to renewable energy sources. However, critics highlight that it is energy-intensive and suggest more focus should be on reducing fossil fuel use directly.

Despite the hurdles, Climeworks remains optimistic, working on additional projects including a facility in Louisiana, USA, capable of capturing one million tonnes of CO2 by 2030.