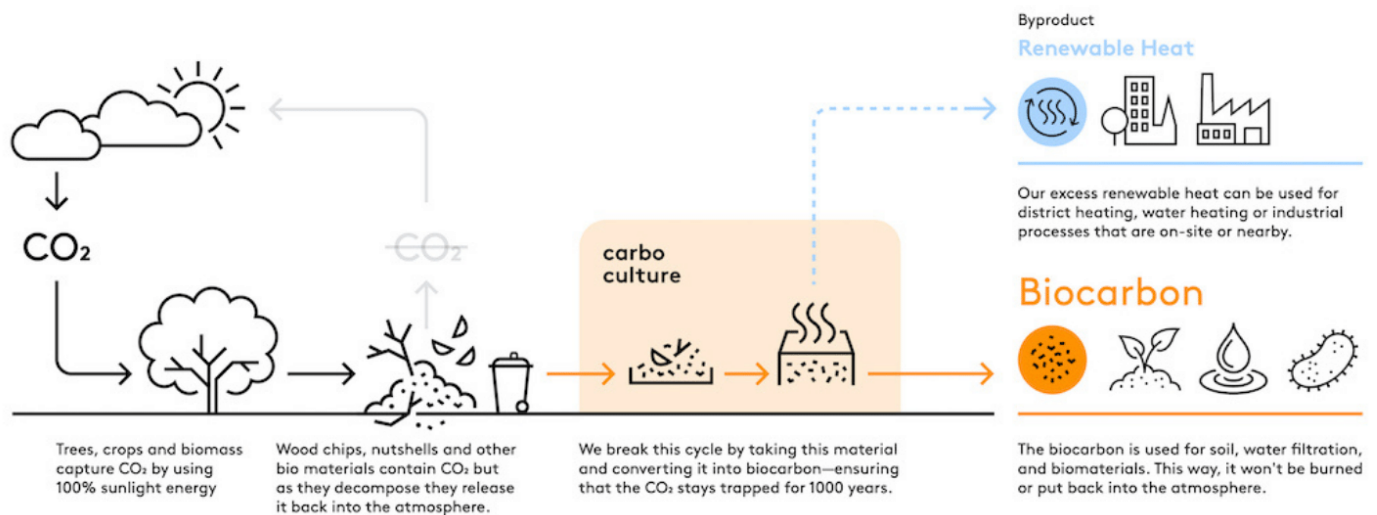


# Hacking the carbon cycle.



The carbon cycle | Photo source [Carbo Culture](#)

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## NEW PROCESS TRANSFORMS CAPTURED CO<sub>2</sub> INTO HEAT AND BIOCARBONS

  COMPUTING & TECH

### The biocarbons help clean soil, water and air of a number of different toxins

**Spotted:** Finnish startup Carbo Culture disrupts the environment's natural carbon capture and release cycle by treating bio waste before it can produce any additional pollutants. Their solution uses high temperatures and low oxygen volumes to rapidly turn food production and other bio wastes into biochar. Biochar porosity makes it ideal for use in soil as a plant growth support because it holds water and nutrients.

Biochar is also highly stable, allowing it to securely store the captured carbon for thousands of years. When added to soil, it also helps reduce methane emissions from plants. Urban farms and green rooftops could use the biocarbons to make small spaces significantly more productive and efficient.

As well as sequestering carbon, the company's process produces excess heat that can be used locally for homes and businesses. Other businesses seeking ways to reduce their carbon footprints can buy verified carbon removal credits from Carbo Culture, and the company provides their test and lab data online to help speed knowledge exchange. With a mission to remove a gigaton of carbon dioxide emissions by 2030, Carbo Culture's recent seed funding success will allow the company to build its first large scale processing plant.

General capacity to capture carbon is growing rapidly as many ideas and prototypes begin to expand in size and the technology continues to develop. Springwise has spotted [self-healing concrete](#) that sequesters carbon as part of its process and [modular carbon capture devices](#) small enough for use in home gardens.

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## **Takeaway:**

Biochar can be used in surprisingly varied ways. As well as commercial agriculture applications, the material can be used as insulation in construction projects, as a means to purify air and to more efficiently store energy. Considering that it can be made from a range of waste products, including animal manure, the scale up of companies such as Carbo Culture could begin making a sizeable dent in the vast challenge of drawing down carbon already in the Earth's atmosphere. The responsibility to stop producing the pollution lies with others.