

New technology can remove greenhouse gas from the air and create profits

Barbara Debusschere - 09/02/14, 7:58



© Bas Bogaerts. Richard Branson yesterday in Antwerp.

Suck CO₂ out of the atmosphere, then sell it for a profit. It seems a fantasy, but for Graciela Chichilnisky, it is a reality. In Antwerp, the economist, flanked by Richard Branson, discussed her company, Global Thermostat. “The CO₂ in the atmosphere is worth billions of dollars,” she said.



British businessman Richard Branson is known as the founder of Virgin, and he invests in green technology. “For every dollar you invest today in energy efficiency, you save three dollars in energy costs in the future,” he said. At the conference of Industry & Innovation which runs until tomorrow in Antwerp, Branson also makes his debut for the many companies that invest in sustainable production. The atmosphere at the conference is good. Never before has the production of renewable energy happened so rapidly, reports the International Energy Agency. Green technology today produces 22 percent of all electricity worldwide. Last year, \$ 250 billion was invested and will continue to increase to a total of 1.61 trillion by 2020.

That kind of news is a boost for the companies that bring breakthrough technology to market. Global Thermostat, one of the guests of Branson in Antwerp, is a prime

example. The American company is run by two professors from the prestigious Columbia University and develops technology to extract CO₂ from the atmosphere and sell it to companies that need it as raw material.

Plucked out of the air

Global Thermostat works by cassettes not much bigger than your hand covered with a special type of nitrogen. The cassettes are stacked on top of each other and provided with exhaust pipes. The CO₂ in the circulating air is 'sucked in' by the nitrogen from the atmosphere. The necessary energy for this process is cheap surplus heat from other processes. The plants are able to process 30,000 cubic feet of air per minute. The finished product is 99 percent pure CO₂, which is then sold for products that include plastic, aviation fuel, fertilizer plastics and cement. The beverage industry uses CO₂. It is also used for enhanced oil recovery. "Altogether there is a market of a trillion dollars," says Chichilnisky. She co-invented the technology and founded her company in 2010, along with physicist Peter Eisenberger. "We are the only one company in the world with a technology to really get the CO₂ Gas directly from the atmosphere at a low cost that goes beyond reducing emissions. With us it does not matter where you place the plants; we clean the air."

CO₂ negative

The company has been awarded already 10 patents in more than one hundred countries for the technology. As an economics professor and climate authority who co-wrote the UN carbon market - EU ETS - Chichilnisky emphasizes the importance of innovative technology.

"The climate crisis is huge and different solutions are needed, and one certainly should be to put a price on CO₂ as the carbon market does. But the solutions can at least be exciting and profitable. Our option is also a way to be for CO₂ negative. CO₂-neutral is not enough, because we have put so much CO₂ in the air that global warming has begun already. It could have catastrophic effects. Today we have to be really active go get it out of the atmosphere."