Caltech Symposium
Plan B: Engineering a Cooler Planet

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87% of IPCC modeling scenarios consistent with 2 °C of global warming involve large scale deployments of CO₂ removal from air.
**CO₂-REMOVAL VIA DIRECT AIR CAPTURE**

1. **CO₂** is captured directly from the air using renewable, e.g., geothermal energy.

2. **CO₂** is pumped underground at favorable **CO₂** storage sites, e.g., Iceland.

3. **CO₂** reacts with underground rock formations and is mineralized. Thereby **CO₂** is bound permanently and safely, reducing the **CO₂**-content of the atmosphere.
Plant type: DAC-1
CO₂ capacity: 100 kg/day
CO₂ application: Mineralization of CO₂ → atmos. CO₂ removal
Heat source: Geothermal
Location: Hellisheidi, Iceland
Commissioning: 11th Oct. 2017

Worldwide first atmospheric CO₂ removal via DAC
Plant type: DAC-18
CO₂ capacity: 2’460 kg/day
Customer: Greenhouse
Heat source: Waste heat
Location: Hinwil, CH
Commissioning: 31st May 2017

Worldwide first commercial DAC plant
HOW OUR TECHNOLOGY WORKS

PHASE 1

Ambient air

$\text{CO}_2$ is chemically bound to the filter.

$\text{CO}_2$ - free air

PHASE 2

Once the filter is saturated with $\text{CO}_2$, the filter is heated to 100 °C.

$\text{CO}_2$ is then released from the filter and collected.

Concentrated $\text{CO}_2$
FOOD, BEVERAGE & AGRICULTURE

• CO₂-supply for bottlers, greenhouses, etc.

RENEWABLE FUELS & MATERIALS

• CO₂-supply for renewable fuel or material synthesis

CSR, ENVIRONMENTALLY CONSCIOUS CUSTOMERS

• Large-scale CO₂ removal from air
• Founded 2009 as spin-off of ETH Zurich
• 50 FTE, largest team of experts in the field
• Headquarter in Zurich, Switzerland; subsidy in Germany
• Raised over $22M through equity and grants to date and