skytree

# Direct Air Capture Technology

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# From cosmos to carbon

Skytree is deploying out-of-the-box Direct Air Capture (DAC) technology that takes $CO_2$ out of the ambient air in a cost- and energy-efficient manner

The technology has its roots in the European Space Agency (ESA) where it was developed to flush out $CO_2$ from space stations, ensuring breathable air for astronauts. 10 years of R&D development has perfected the technology since then, and pivoted it towards $CO_2$ utilization and storage markets, a long-term addressable market opportunity worth $3tn

Skytree has entered the market as a technology provider and designed its product to be site-independent and scalable for any demand level

# Cutting edge DAC Technology

**Ambient Air**

**Energy**

**$CO_2$** | Utilization

**$CO_2$** | Storage

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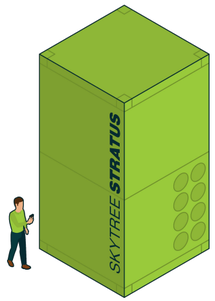
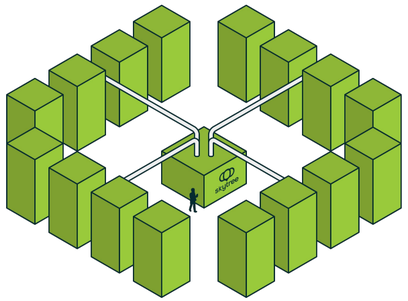
# The DAC landscape

| | | | | | |
|---|---|---|---|---|---|
| **$CO_2$ Source:** | Point source<br>Fossil fuel | **Atmospheric** | | | Biogenic |
| **Technology:** | Membranes | **Temperature Swing (sorbent)** | Temperature Swing (solvent) | Moisture Swing | Others |
| **Strategy:** | **DAC machine builders** | | | | DAC Site Operators with own tech |

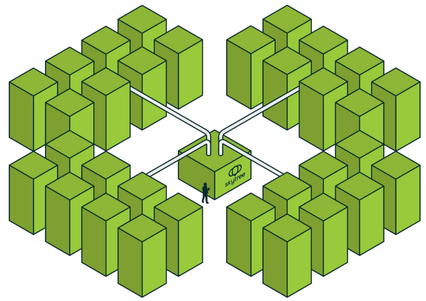
# DAC Scaling




**Skytree Stratus**



**DAC Hub**



**DAC Hub scaling**

- Modular working: transportability, stackability and scalability.
- Field upgradability
- IoT connected

# $CO_2$ utilization

Short Term

## Controlled Environment Agriculture (CEA)

$CO_2$ is critical to improve yield
CEA needs to transition from on-site fossil fuel generated CO2 to sustainable CO2 generation

Medium Term

## Efuels

Sustainable $CO_2$ is crucial for eFuels production
eSAF plays a vital role in decarbonizing air travel
Regulatory pressures create a market for eFuels

# $CO_2$ removal

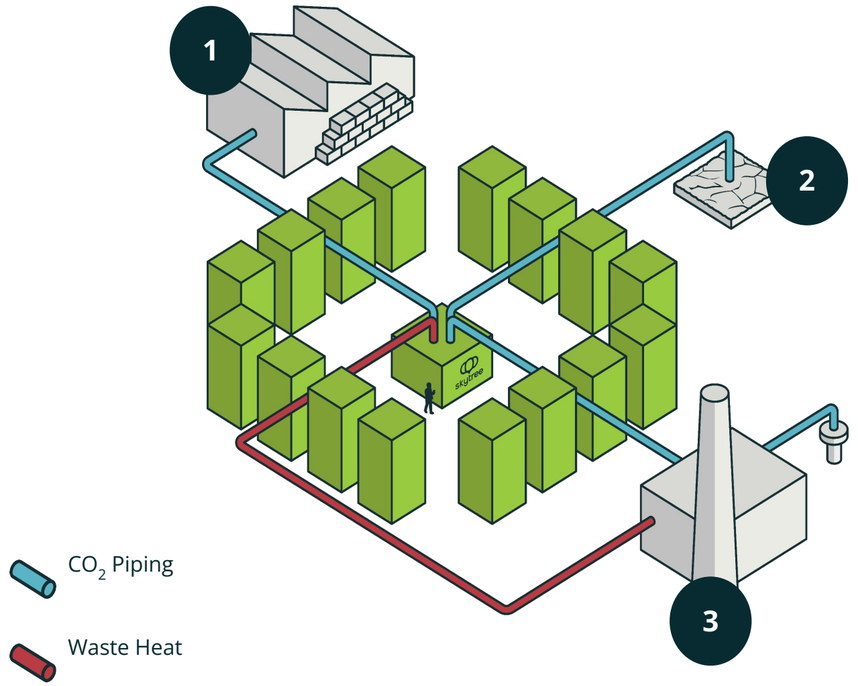
## 1. Ex-situ mineralization

production of building materials with a negative carbon footprint

## 2. In-situ mineralization

$CO_2$ sequestration in geological formations (CDR)

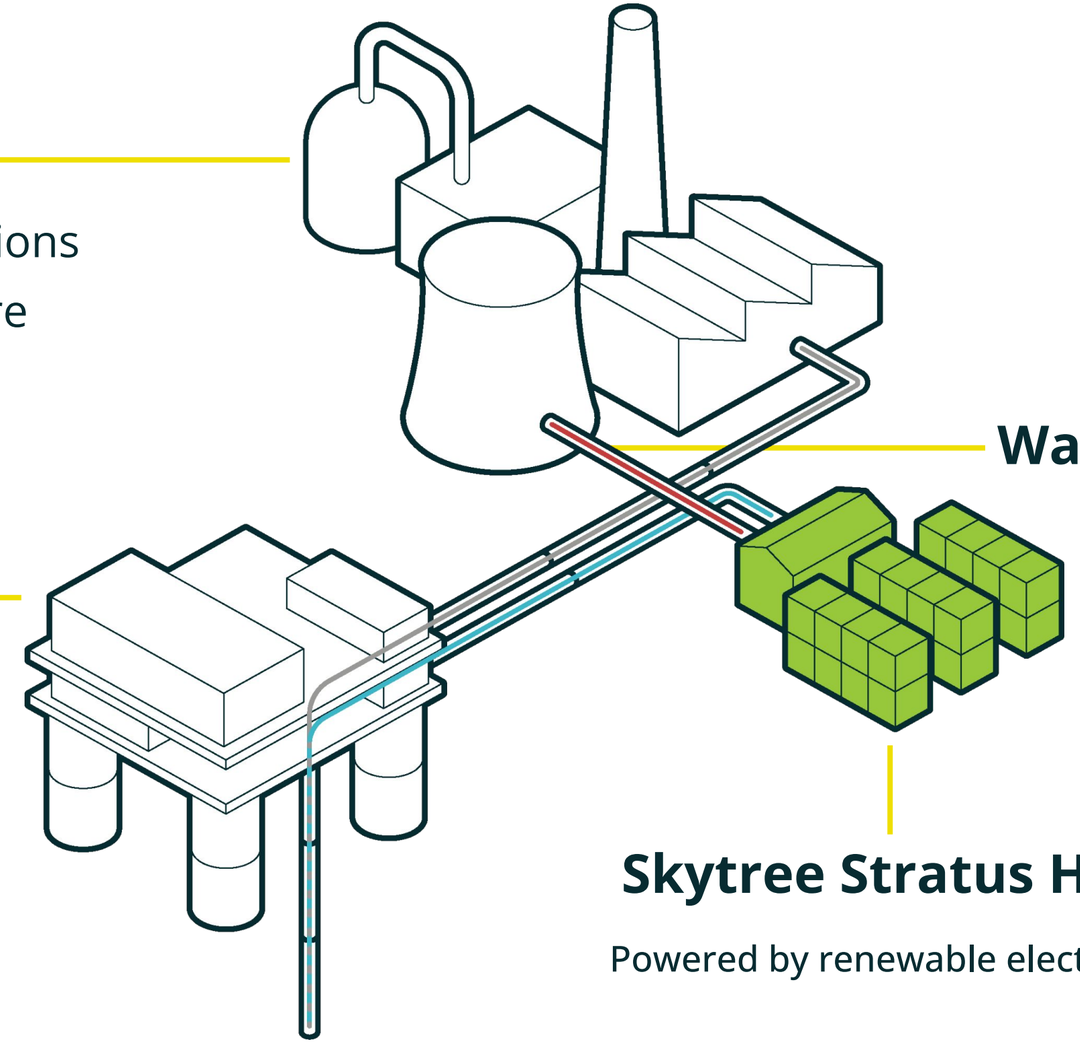
## 3. Connecting with CCS infra



# Carbon Capture and Sequestration + DAC

**Industrial emitters**

Neutralizing future emissions through CCS infrastructure



**Waste heat**

**$CO_2$ Storage**

**Skytree Stratus Hub**

Powered by renewable electricity

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