

# Svante

## USEA Consensus Webinar

Carbon Capture in Colorado and the Southern Ute Indian Reservation

Building a CO<sub>2</sub> Marketplace in Colorado

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Claude Letourneau, President & CEO



# About us

We offer companies in hard-to-abate industries a commercially viable way to capture CO<sub>2</sub> with a Net-Zero emissions solution.



Since 2007



Over 100 employees



Vancouver, Canada

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Svante has now attracted more than **\$175 million USD** in total funding since it was founded in 2007 to develop and commercialize its breakthrough solid sorbent technology at half the capital cost of traditional engineered solutions.

# Our Investors



*Energy Producers (37%)*



*Government of Canada (12%)*

TEMASEK  
HOLDINGS



CARBON  
DIRECT



MITSUI & CO.

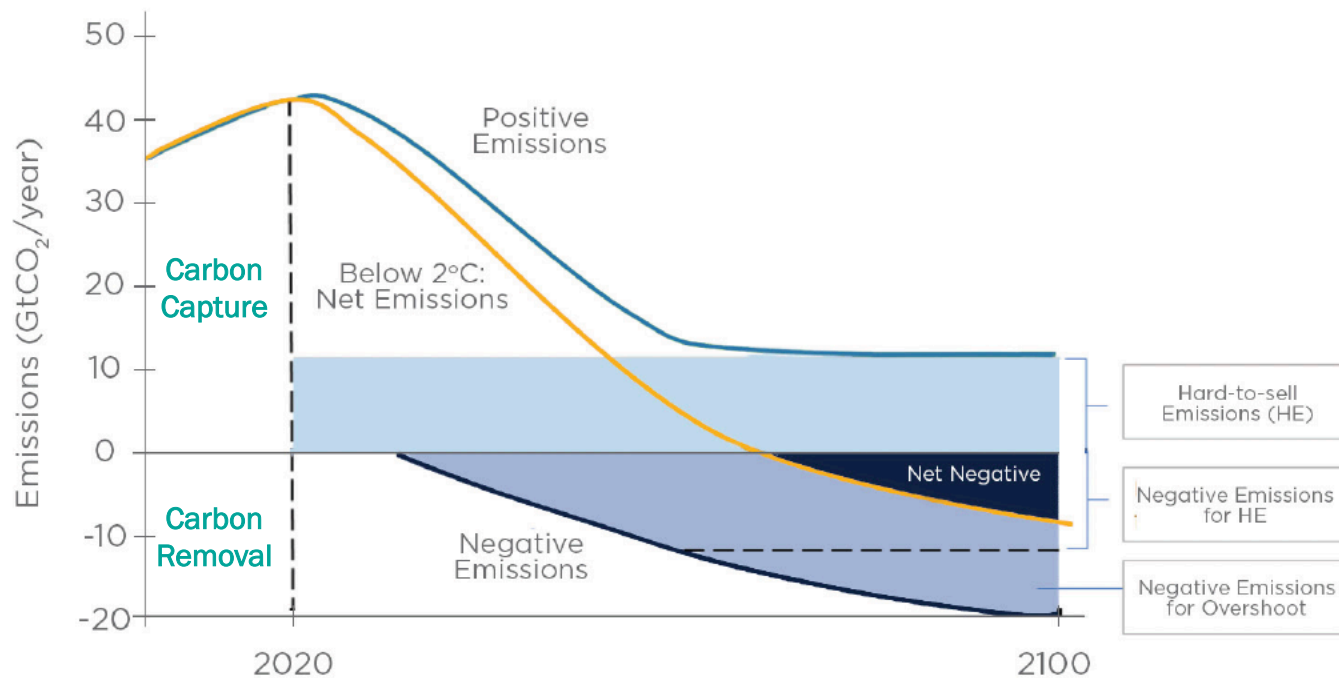
THE  
RODA  
GROUP



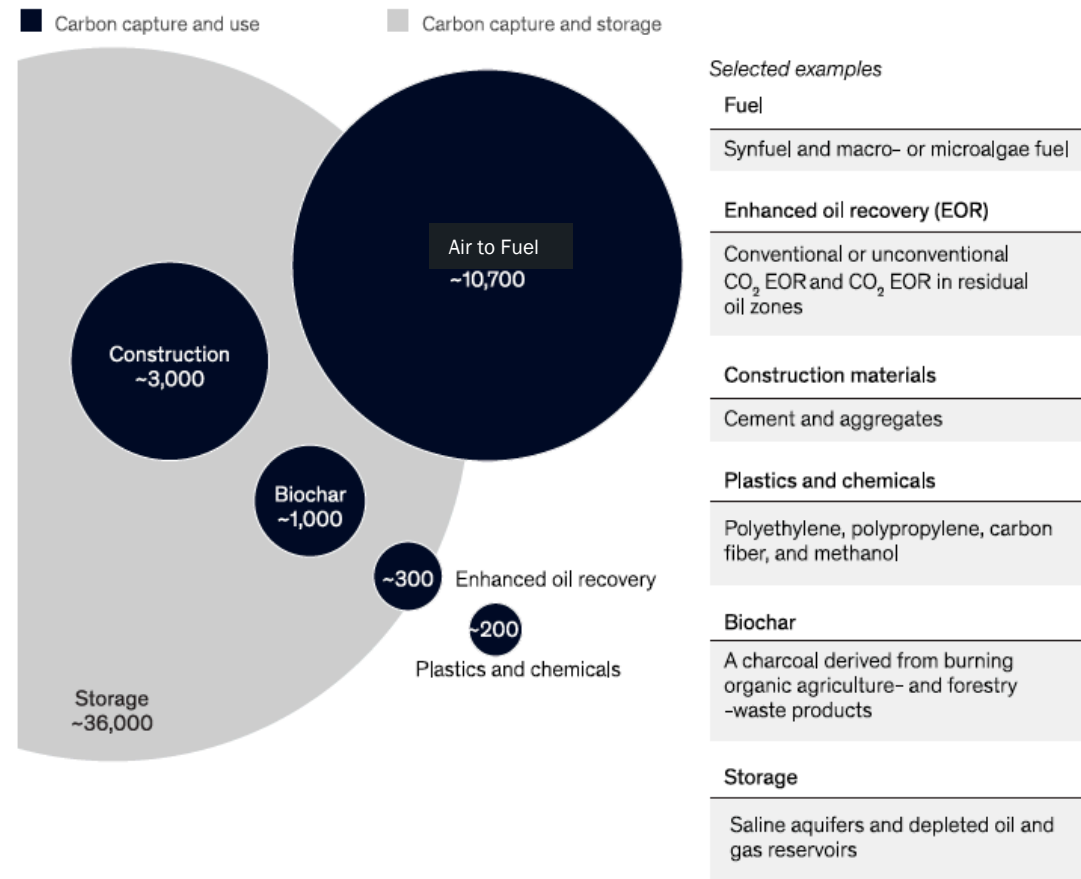
*VC's & Strategic Investors (51%)*

# The Arithmetic of Net-Zero

$$\text{CO}_2 \text{ emissions} - \text{CO}_2 \text{ removals} = 0$$

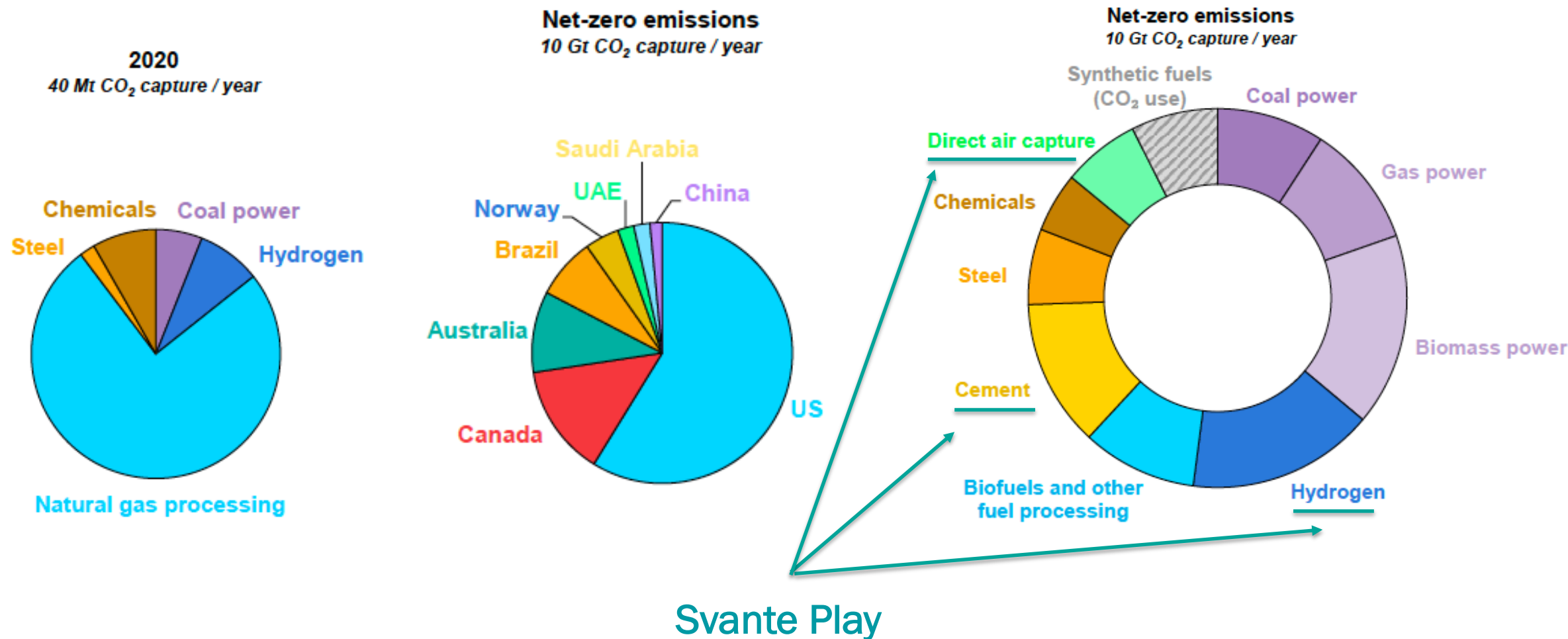


Technical potential of CCUS in 2030, metric megatons of CO<sub>2</sub> per year<sup>1</sup>





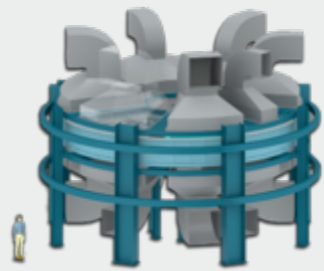
# Carbon Capture Market Segmentation



Source: IEA, September, 2020

# Svante's Low CAPEX Technology

- High capital cost is currently a barrier to widespread deployment of carbon capture
- Svante's solid sorbent technology is industrial scale, **low CAPEX** solution ready to enable the market today
- By replacing large chemical solvent towers (conventional approach) with a single piece of compact equipment, Svante's technology enables a **50% reduction in capital costs compared** to first generation approaches

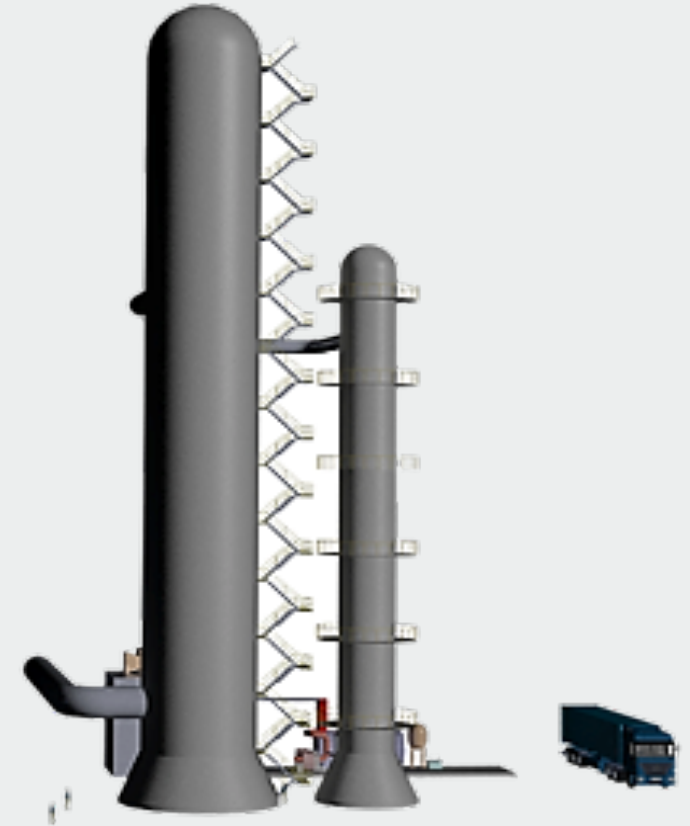


Svante Technology

CAPEX

Half of the Capital  
Costs

CAPEX



Conventional Approach

# Svante's Technology – Nano-Filter Solid Adsorbent

## Powerful Nano-Filter

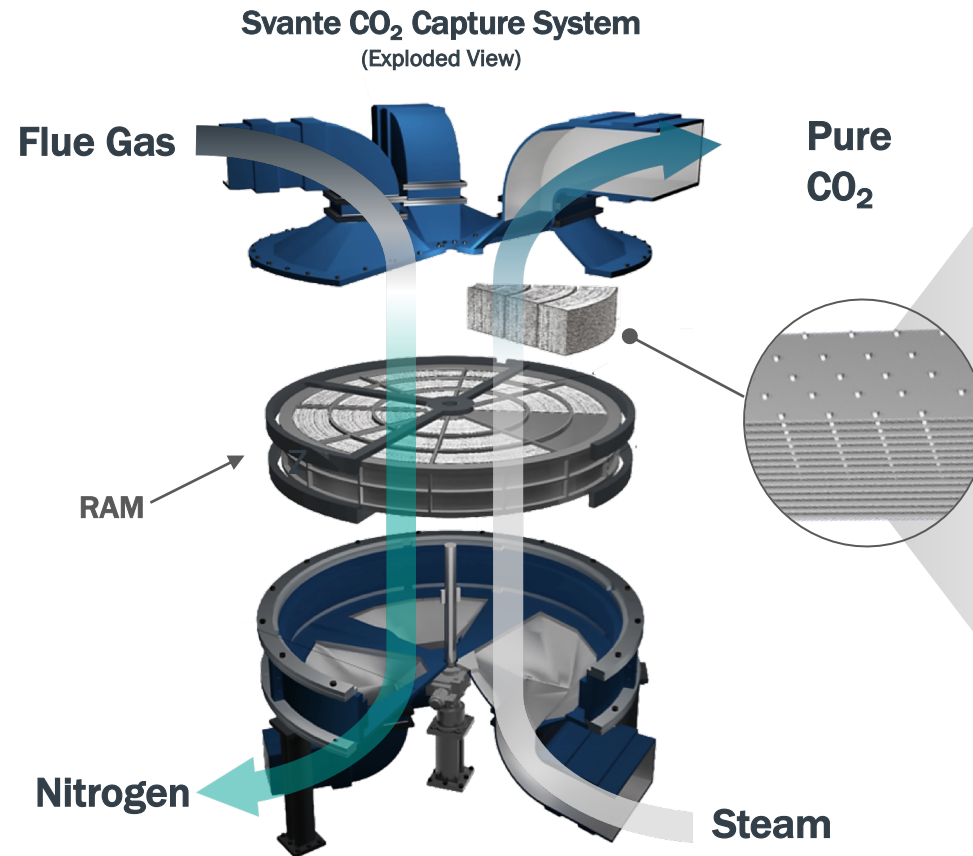
high capacity for CO<sub>2</sub> capture

## Fast Heat Transfer

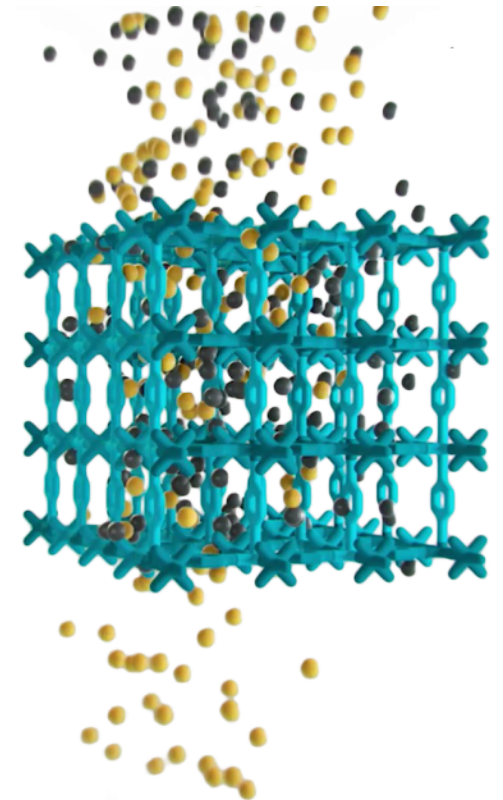
large productivity and small footprint

## Low Pressure Drop

low operating cost



Flue Gas



Nitrogen Passes



# Demonstration Plant – Industrial natural gas boiler



World's  
first rapid cycle  
sorbent CO<sub>2</sub>  
capture plants

PARTNERS

 **Husky Energy**

LOCATION

Lloydminster, Saskatchewan

CAPACITY

30 tonnes/day



CONFIDENTIAL



# Svante Testing Facilities

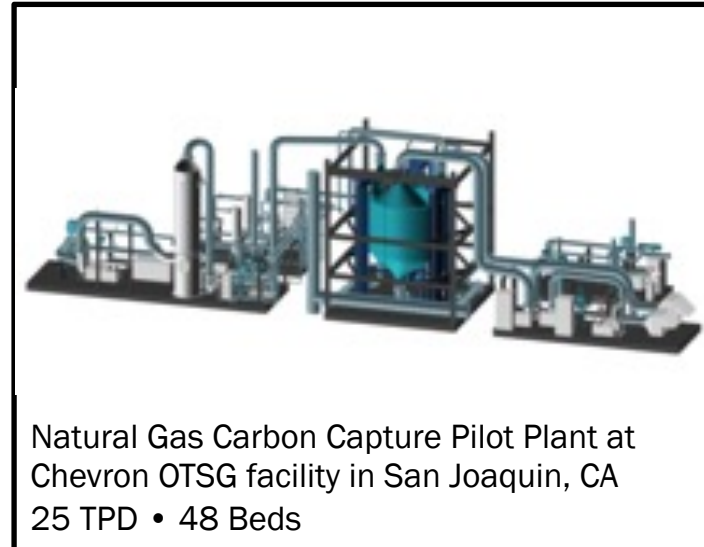
Pilot Plant Capture Unit (PPCU) at Cenovus (formerly Husky) SAGD facility in Lashburn, SK • 30 TPD • 48 Beds



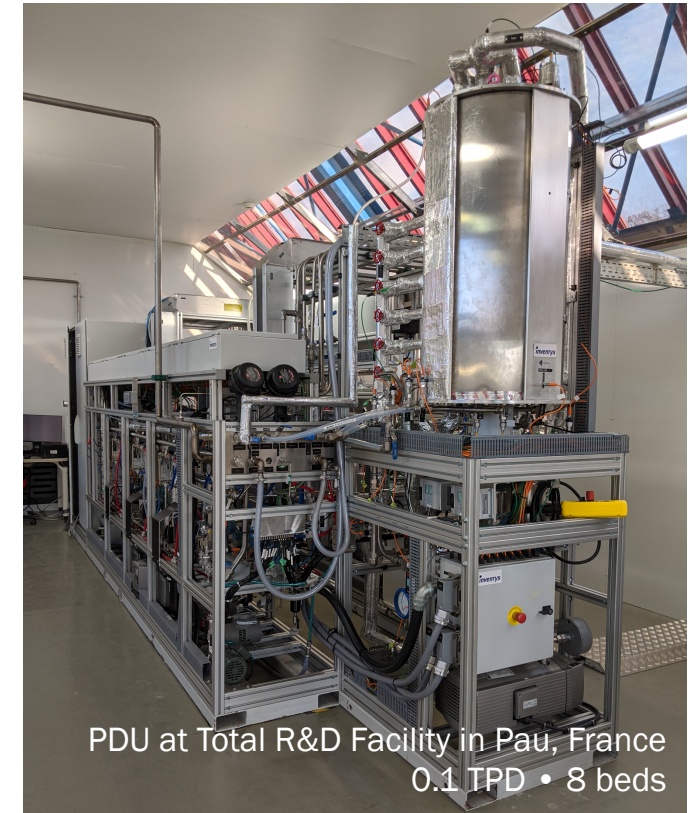
Process Demonstration Unit (PDU) at Svante R&D Office in Burnaby, BC • 0.1 TPD • 8 beds



CO<sub>2</sub>MENT Unit at Lafarge Cement Plant in Richmond, BC  
1 TPD • 48 beds

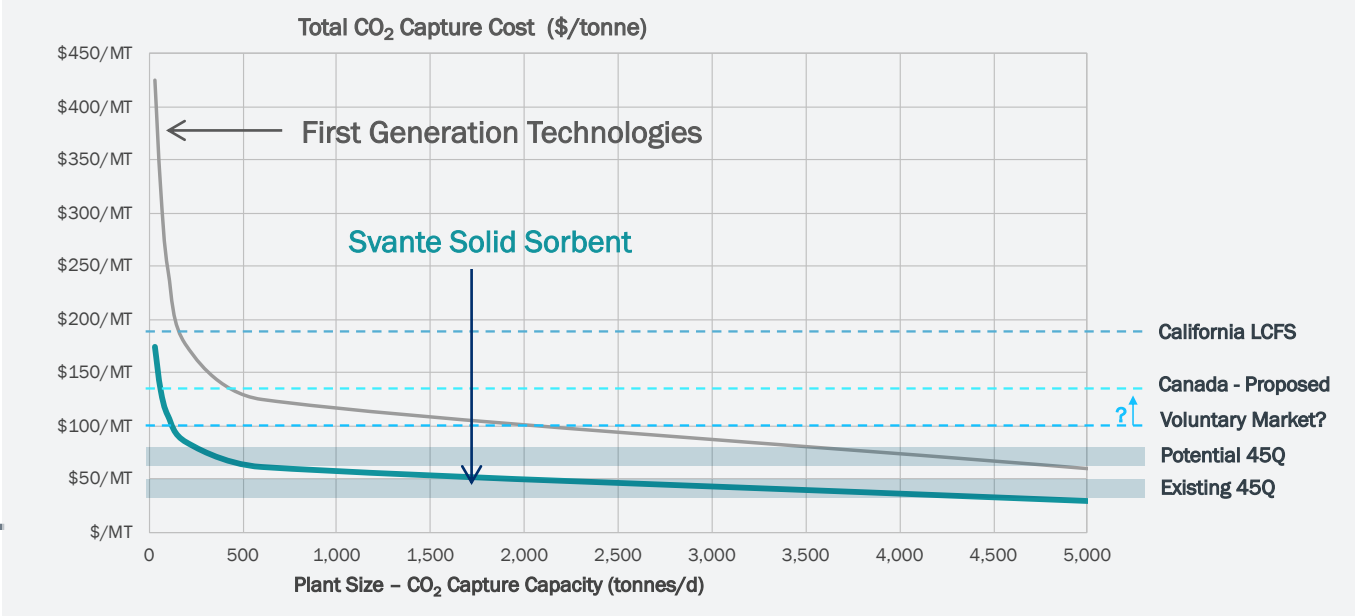
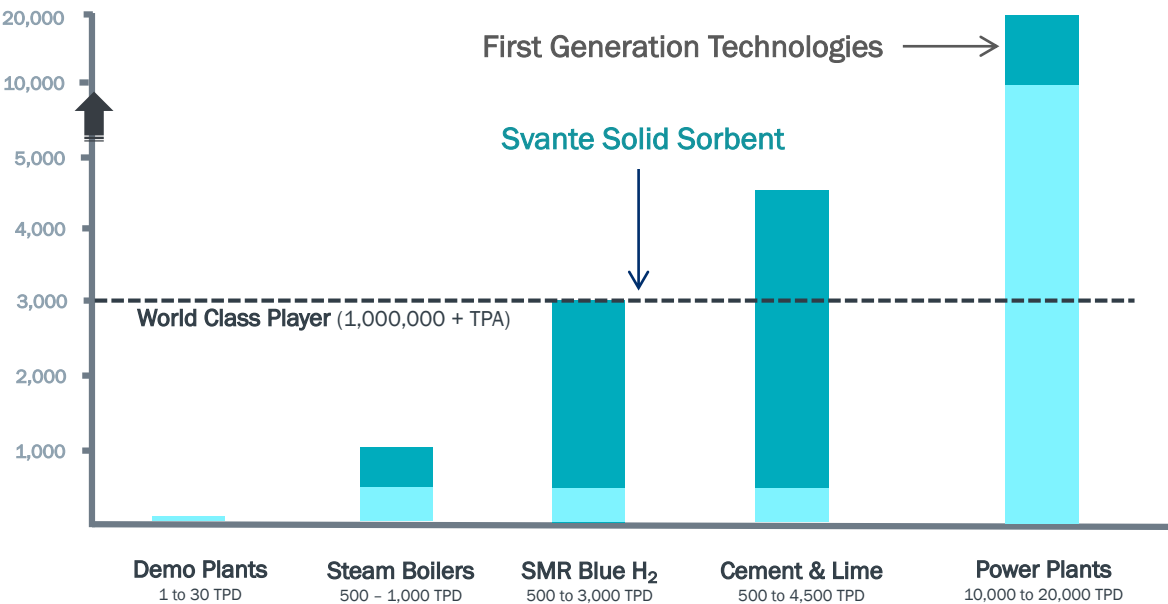


Natural Gas Carbon Capture Pilot Plant at Chevron OTSG facility in San Joaquin, CA  
25 TPD • 48 Beds



PDU at Total R&D Facility in Pau, France  
0.1 TPD • 8 beds

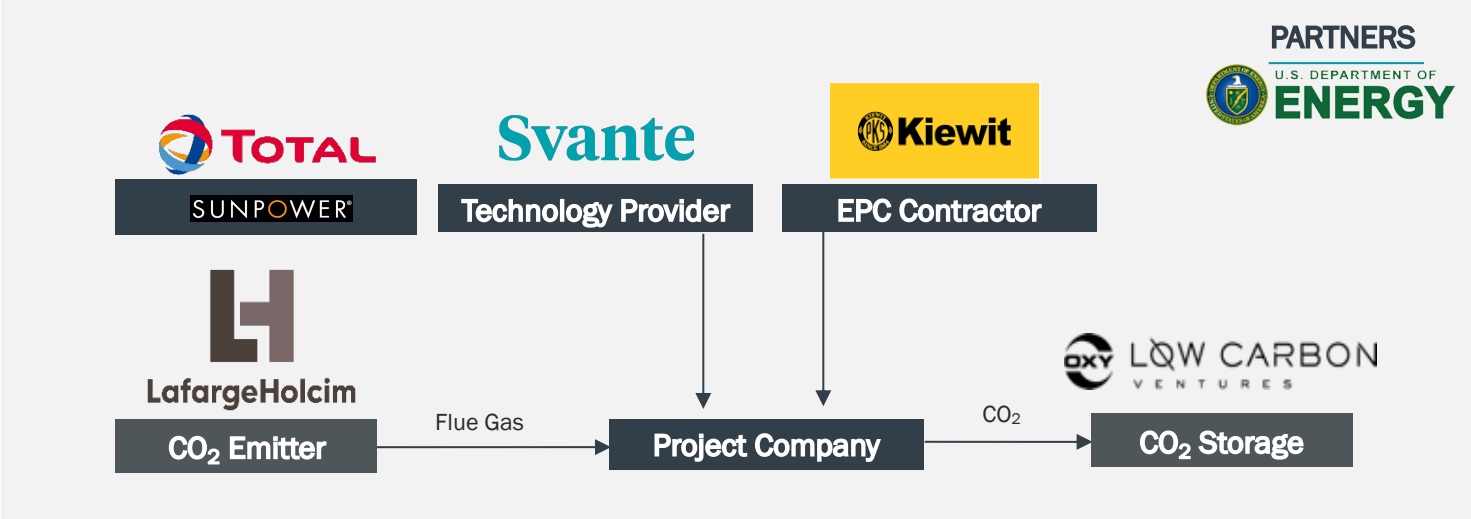
# Economies of Scale | Customer Affordability







# Building a CO<sub>2</sub> Marketplace in Colorado



**Demonstrate CO<sub>2</sub> capture from industrial boiler flue gas**

**Solid Sorbent Technology**

Capacity: 10,000 tonnes/yr

Saskatchewan, Canada

**Pre-Feasibility Study of First Commercial Scale Svante Capture Plant for CO<sub>2</sub> storage from cement plant**

**45Q Tax Credits – 50 \$/tonne**

Capacity: 1.5 million tonnes per year

Florence, CO, USA



# LafargeHolcim CO<sub>2</sub>MENT Project, Florence, Colorado

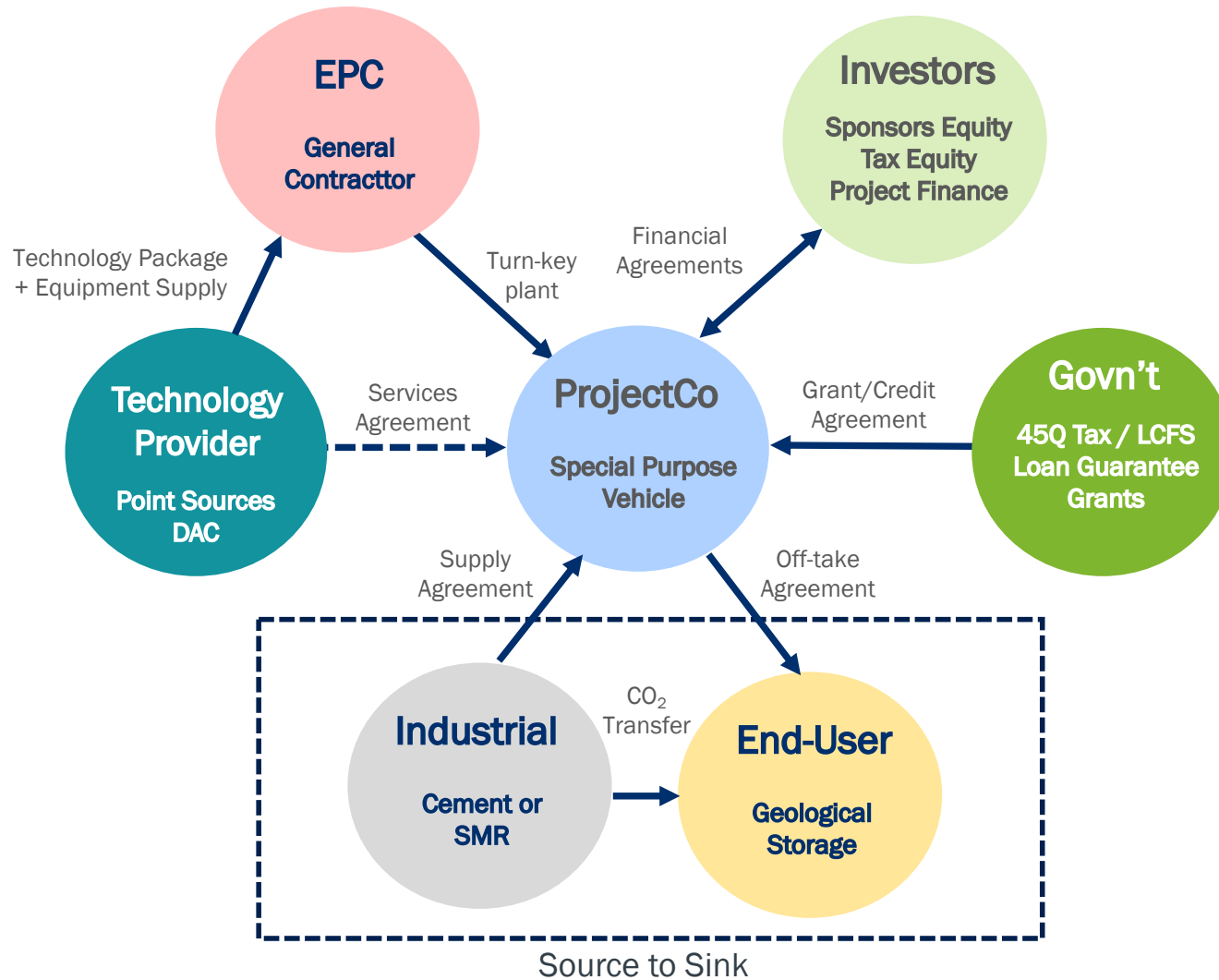


BUILDING  
FOR  
net  
Zero  
PEOPLE & PLANET





# CO<sub>2</sub> Marketplace Business Model



## Key Drivers

- 45Q Tax Credits
- LCFS
- Price on Carbon (50+ \$US/tonne)
- Voluntary Carbon Markets
- Border Carbon Adjustments (BCA)

## Project Finance

- Similar structure as renewables deployment
- Complex Risk Management Framework:
  - New technology deployment
  - CO<sub>2</sub> ownership liabilities (Cradle to Grave)
  - Multi-party arrangements

# Svante

Capturing Carbon, Economically Today

[www.svanteinc.com](http://www.svanteinc.com)

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