



# BUILDINGS AS CARBON SINKS

We integrate carbon capture system in buildings, reduce building emissions, and turn CO<sub>2</sub> into valuable products.

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CEO, Partner

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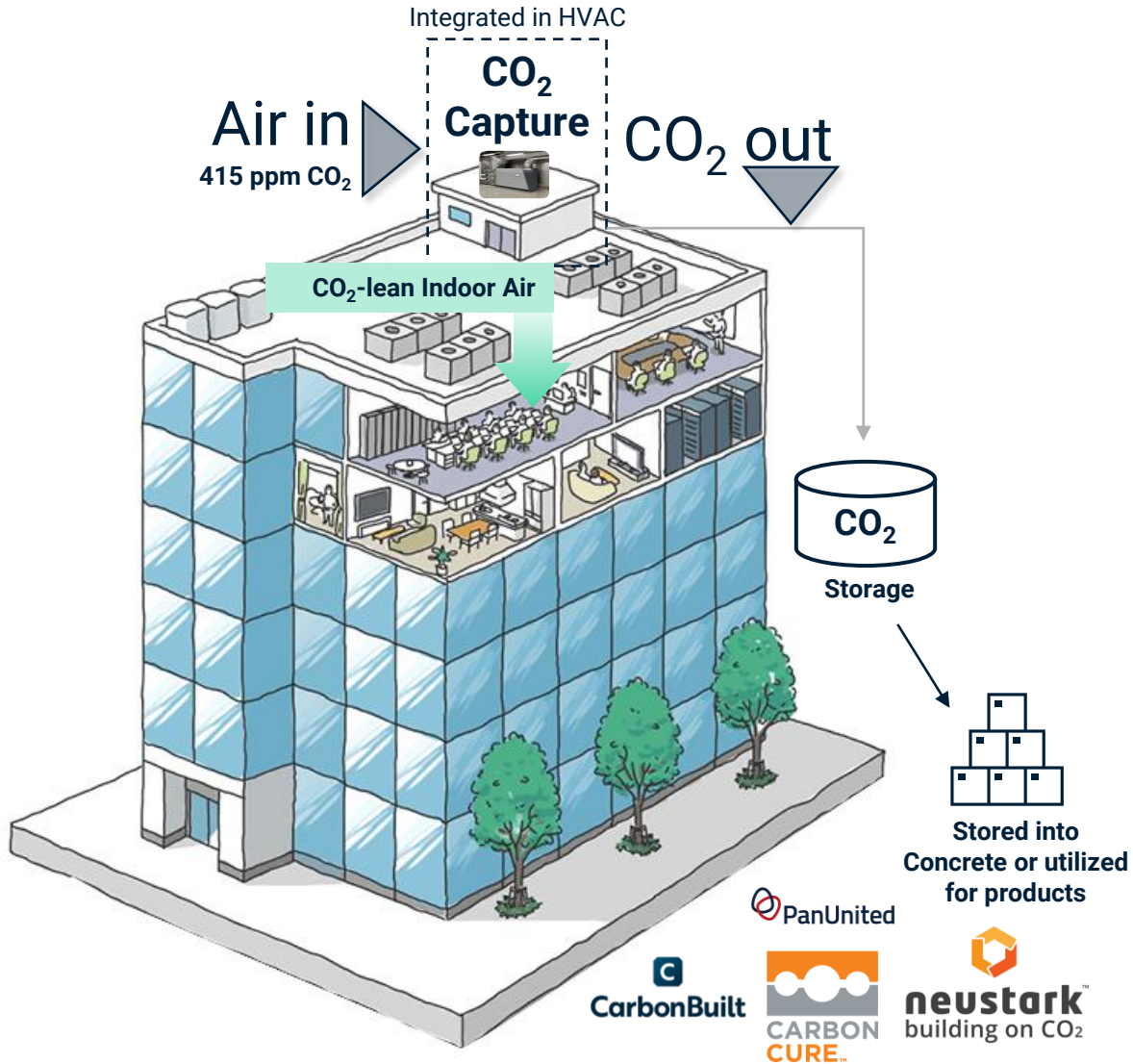
petri.laakso@soletairpower.fi



## THE PROBLEM

**Buildings  
need to be  
net-zero.**

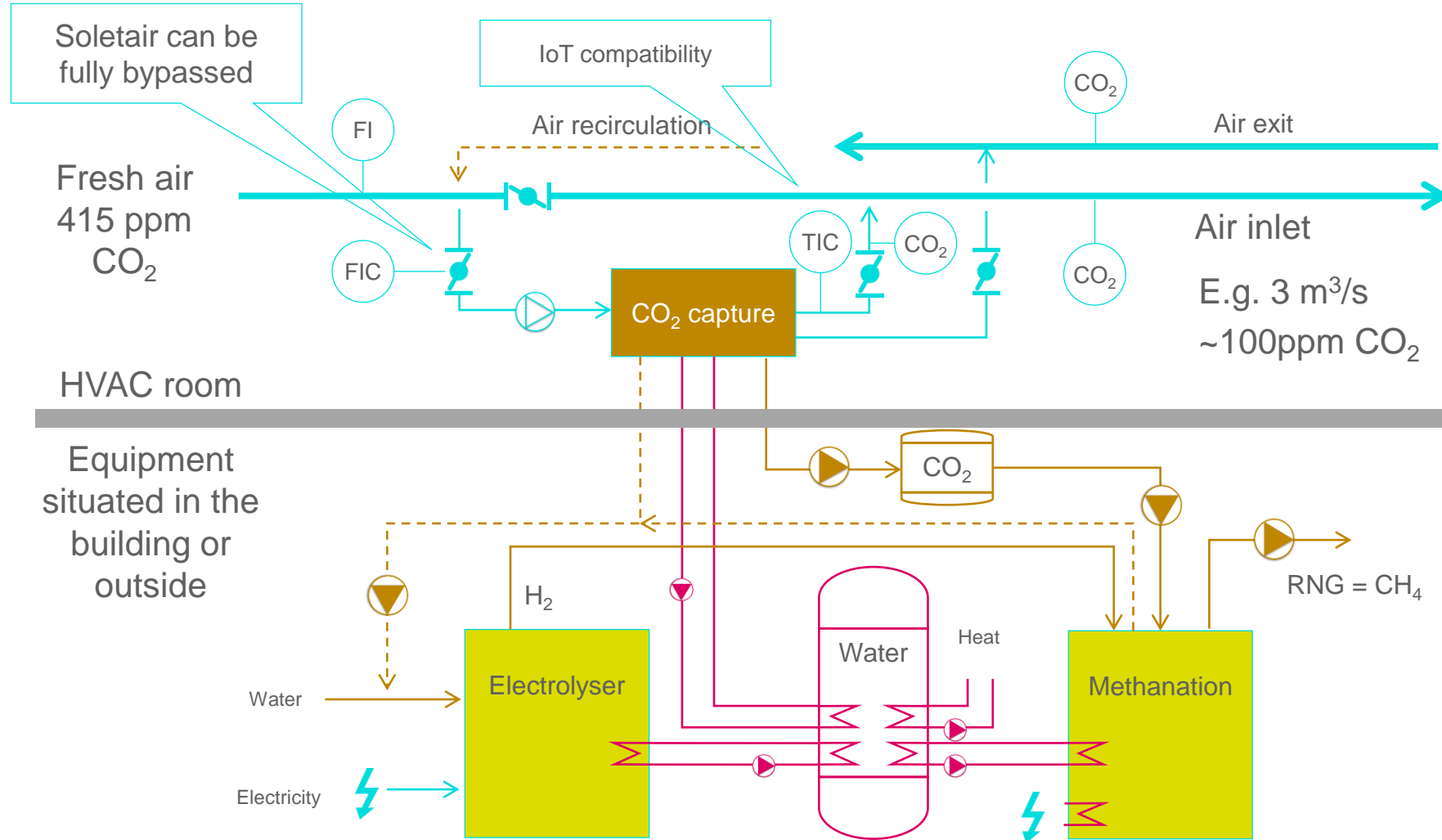




**THE SOLUTION:**  
Capturing more CO<sub>2</sub> than the building emits

**Turning buildings into Carbon sinks.**

# Equipment example

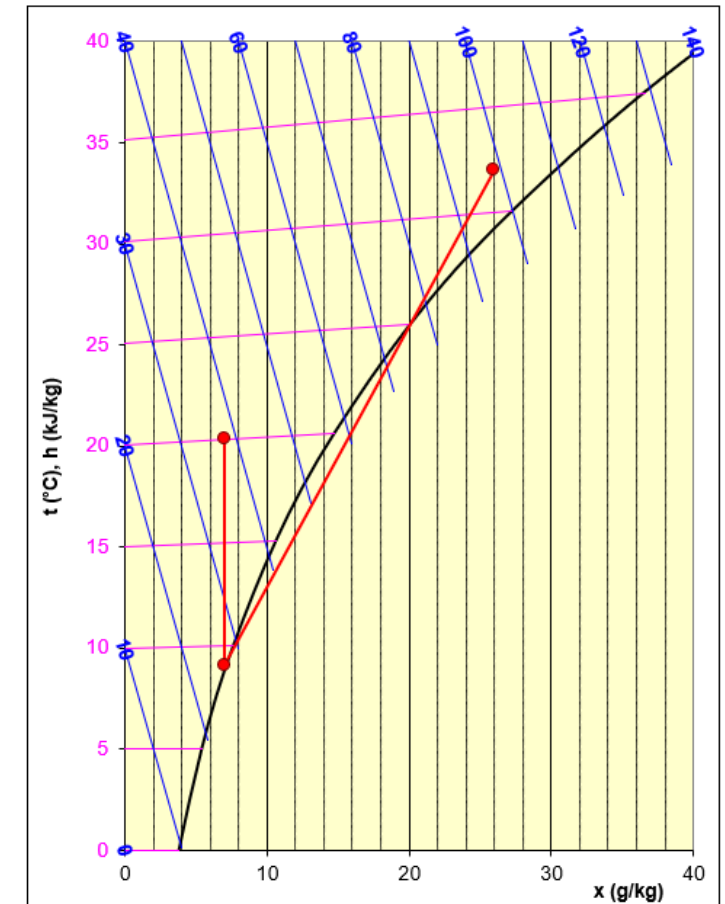


# Why buildings' HVAC?

- **Airflow rate** 3m<sup>3</sup>/s (one AHU/Air Handling Unit only)
- **System runtime** 24/7
- **Ventilation reduction** 50%
- **Cost saving** 40k\$ /year (295\$/MWh)
- **Avoided CO<sub>2</sub> (energy)** 120 tons /year
- **Captured CO<sub>2</sub>** 40 tons /year
- **Revenue streams:**
  - Less energy used for cooling → lower costs → ROI target in 3 years
  - Less energy used → lower emissions → **lower carbon tax**
  - CO<sub>2</sub> captured → **negative emissions** → **carbon credits**
  - Negative emissions → possibility for carbon neutral (negative) buildings

2022-10-11

Customer: Soletair Power  
 Mill: Singapore  
 Process: Air cooling and heating  
 Equipment:



# Real systems, delivered.

1. Building HVAC integration Unit
2. Outdoor CO<sub>2</sub> Capture Unit
3. Indoor CO<sub>2</sub> Filtering Air Purifier
4. Power-to-X Unit Demo Unit
5. On going HVAC integrated to German customer

Vaasa,   
Finland

1

 ZBT,  
Germany

2

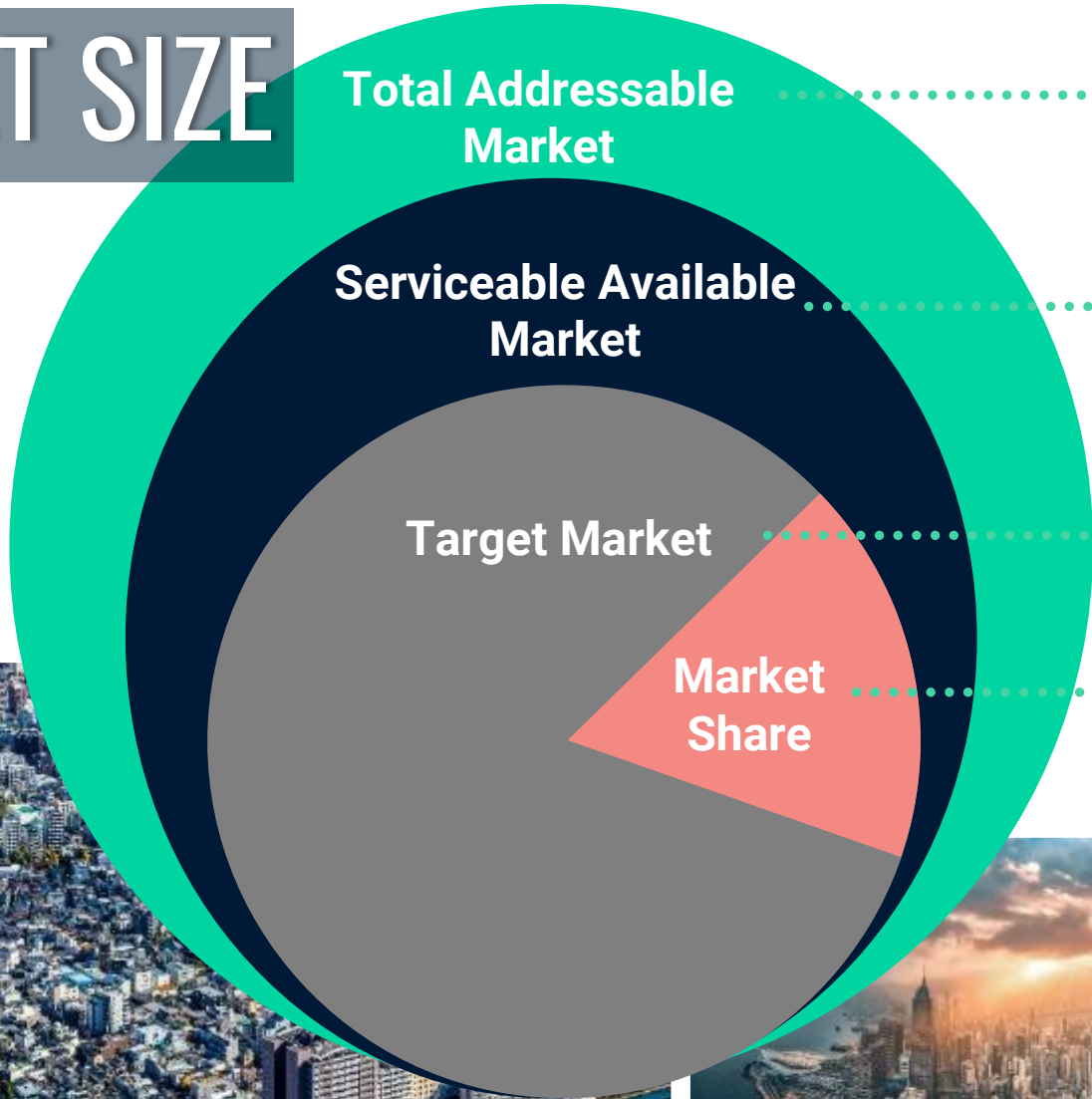
Lappeenranta,   
Finland

3

Expo 2020,   
Dubai

4

# MARKET SIZE



## Newly built Commercial Buildings

HVAC ~ \$70 Billion/year  
Outdoor Carbon Capture ~ \$1.4 trillion by 2050\*\*



## 10% of Newly built Commercial HVAC

~ \$7 Billion/year



## US/Canada, EU, India, China, UAE, Japan

~ 4,168,000 commercial buildings (JLL)



## 1% market share by 2030

700 million \$/a



# Team



**Ari Piispanen**  
Co-founder & Sales  
Director



**PhD Cyril Bajamundi**  
Chief Technology  
Officer



**Petri Laakso**  
Chief Executive  
Officer



**Dr. Kimmo Rauma**  
Chairman of the  
Board



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