



carbon clean  
TECHNOLOGY TO ACHIEVE 'NET ZERO'

# Executive Overview

---

August 2023

# INDUSTRIAL DECARBONISATION IS A TRILLION \$ MARKET

## Addressable challenges



### Climate change is real

37 gigatonnes of industrial CO<sub>2</sub> emissions per annum. Companies and governments are demanding carbon capture solutions.



### CO<sub>2</sub> capture today is too expensive

Our competitors' offerings cost \$100's / tonne. There are no standardised design solutions.

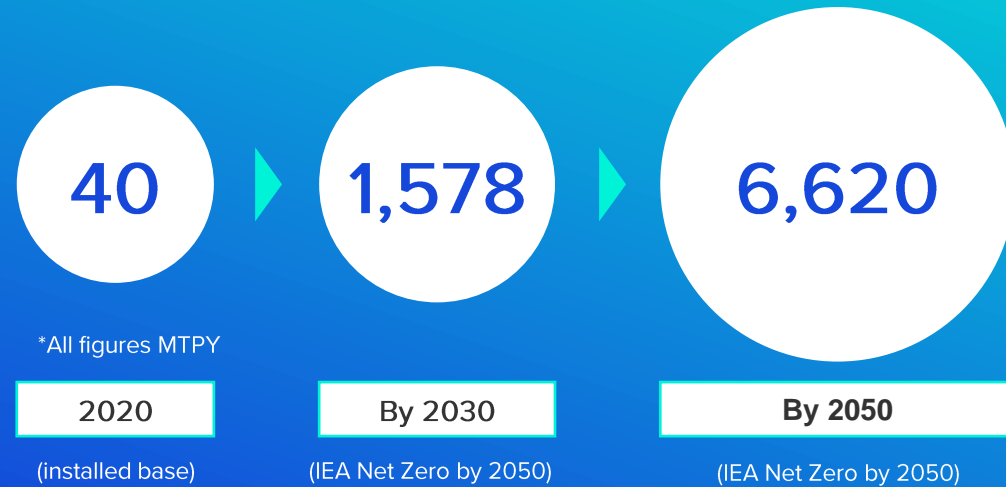


### >50% of industrial sites have no space

Most industrial sites are too dense for incremental infrastructure.

## Ready to capture

Carbon Clean plans, and is ready, to capture a significant portion of the required 166x ramp up in equipment capacity.



# CARBON CLEAN IS A GLOBAL LEADER IN INDUSTRIAL CARBON CAPTURE SOLUTIONS

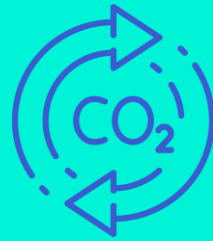
49

Global sites



1.9m

Tonnes of CO<sub>2</sub> captured



50%

Footprint reduction



50%

Reduction Per tonne capture cost



Our patented technology significantly reduces the costs of carbon capture –  
81 active patent assets across 14 patent families covering 32 countries

# OUR SOLUTIONS

## Engineered to Order Technology



- Technology licence model
- Capacities up to 2,000 TPD CO<sub>2</sub>
- Mature technology
- Traditional project execution

## CDRMax Semi-Modular Technology



- Pre-fabricated standardised systems
- Capacities 100, 200, 300 TPD CO<sub>2</sub>
- Less installation and onsite activities
- Reduced project timeline

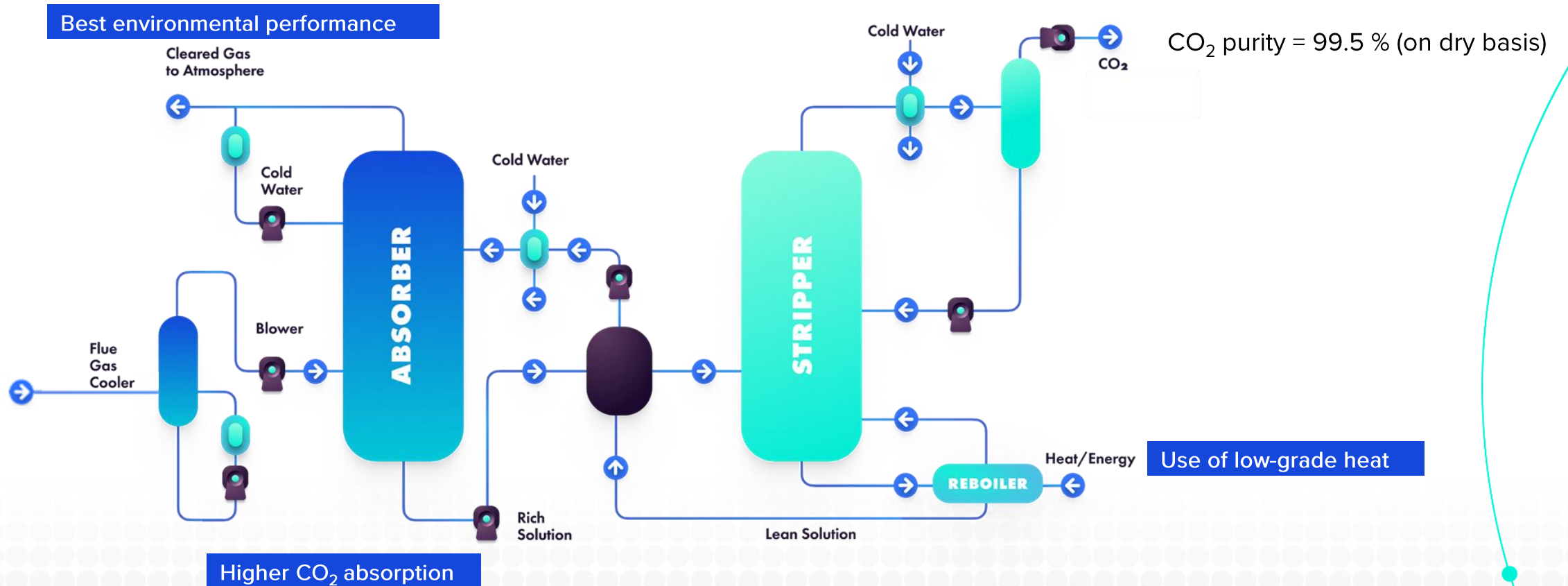
## CycloneCC Modular Technology



- Fully pre-fabricated modular system
- Capacities 10, 100, 300 TPD CO<sub>2</sub>
- Up to 50% reduction in CapEx and OpEx
- Standardised scalable specific sizes reduce footprint

# THE CDRMAX PROCESS

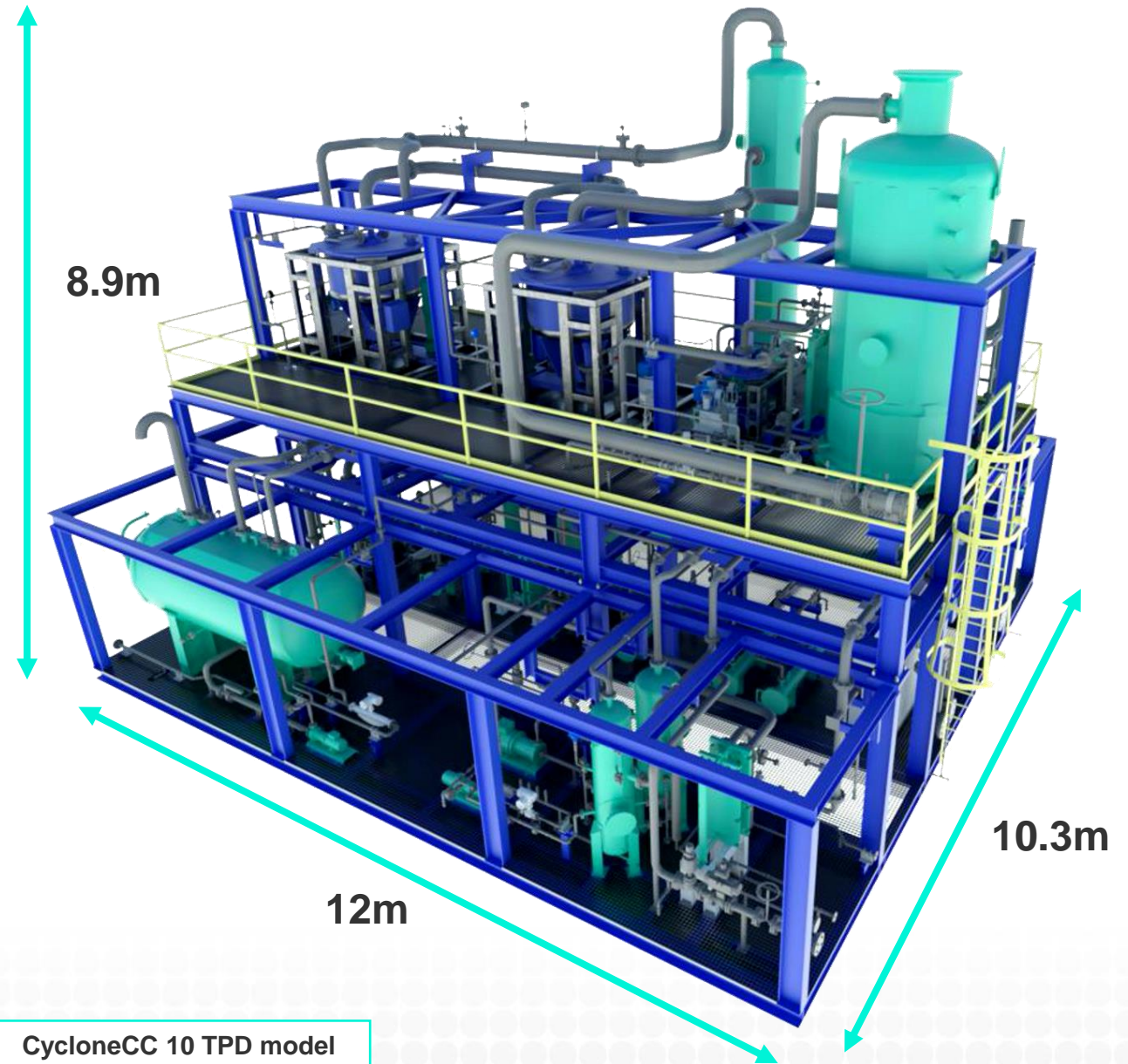
Carbon Clean has expertise in process design and engineering that, when integrated with existing industrial plants or new projects, enables optimised carbon capture.



# OUR EXECUTION STRATEGY IS SIMPLE

The world's smallest industrial carbon capture solution: CycloneCC

**Modular:** Mass transfer equipment is 10x smaller and overall footprint is up to 50% smaller than conventional carbon capture units



CycloneCC 10 TPD model

# CYCLONECC PRODUCT



CycloneCC 100 TPD  
model

Overall footprint:  
**225m<sup>2</sup>**

Conventional 100 TPD  
carbon capture plant

Overall footprint:  
**500m<sup>2</sup>**

# OUR KEY SECTORS

## Cement



Rüdersdorf  
Germany



Carboneras  
Spain

## Energy



San Joaquin Valley  
US



Örnsköldsvik  
Sweden

## Energy from Waste



Sheffield  
UK

## Steel



Jamshedpur  
India



# TUTICORIN ALKALI CHEMICALS AND FERTILIZERS LIMITED



**Tuticorin  
Alkali  
Chemicals**

**> 90%**  
capture rates

**\$35-45**  
tonne capture cost

CO<sub>2</sub> converted into  
soda ash for green  
product resale

Soda ash purchased by  
Unilever for 100% green  
cleaning products

# SEMI-MODULAR: FLAGSHIP ONE



**Orsted**

Carbon neutral  
fuel for the  
maritime industry

Carbon capture equipment  
capable of capturing 70,000  
tonnes of biogenic CO<sub>2</sub>

Carbon neutral  
fuel for the  
maritime industry

Europe's largest  
green methanol  
project

# SEMI-MODULAR: TAIHEIYO CEMENT CORPORATION



TAIHEIYO CEMENT



丸紅株式会社  
Marubeni

Japan's first  
carbon capture  
demonstration facility

Carbon capture technology  
development for cement kilns

Capturing  
10 TPD  
of CO<sub>2</sub>

Development of  
circular carbon use  
case applications

# SEMI-MODULAR: NTPC, VINDHYCHAL



India's first  
carbon dioxide to methanol  
demonstration facility

Carbon capture technology  
development for power plants

Capturing  
20 TPD  
of CO<sub>2</sub>

Development of  
carbon dioxide  
application case

# SEMI-MODULAR: TATA STEEL



Capturing  
5 TPD of CO<sub>2</sub>

Modular and  
skid-mounted  
technology

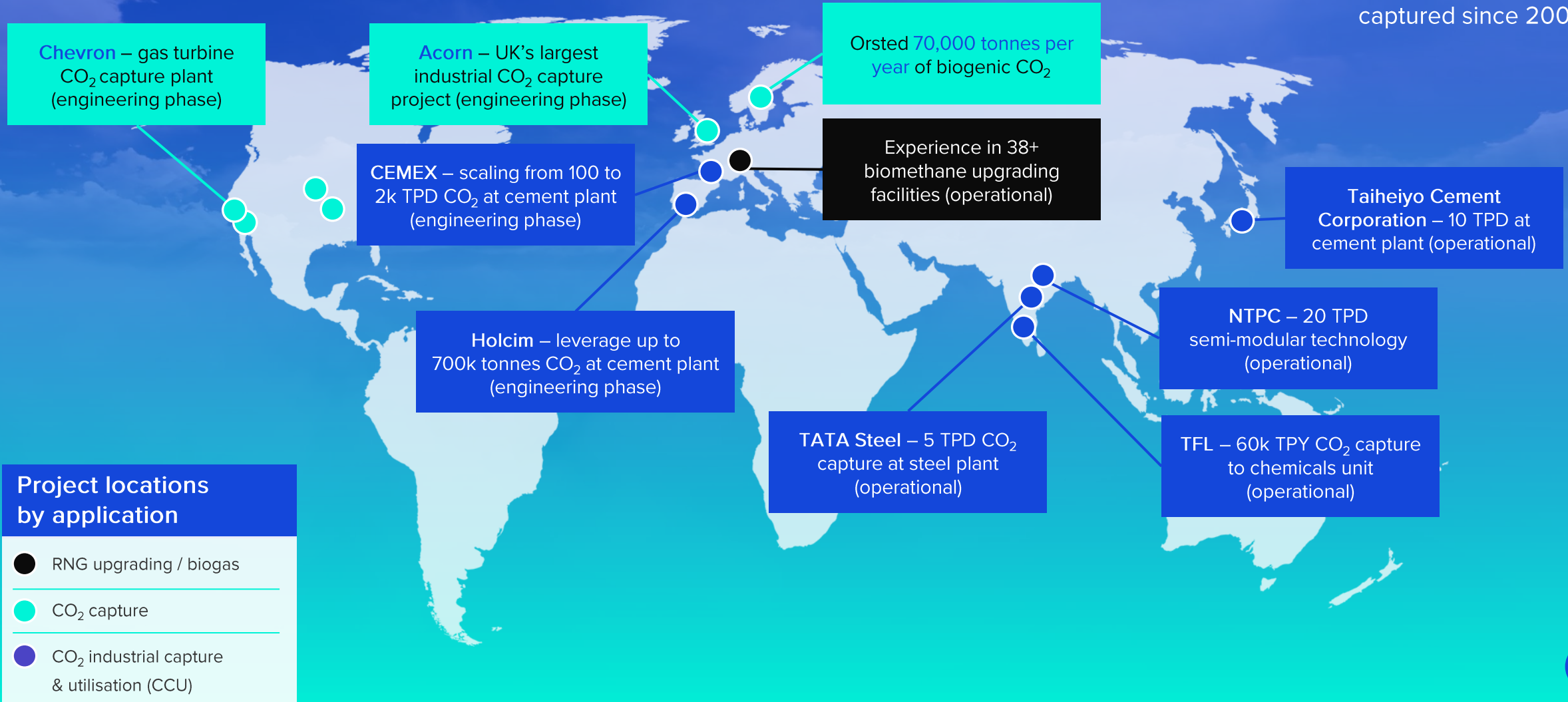
First-of-its-kind  
within the steel industry

CO<sub>2</sub> reuse onsite to  
promote the circular  
carbon economy

# 49 TECHNOLOGY REFERENCES ACROSS THE GLOBE

1.9m

Tonnes of CO<sub>2</sub>  
captured since 2009



# STRONG GLOBAL PARTNERSHIPS

## Strategic Partners & Top Customers



## Key Investment Partners





# THE TIME IS NOW

Let's create a carbon clean future

