



carbon8

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Head of Commercial Partnerships

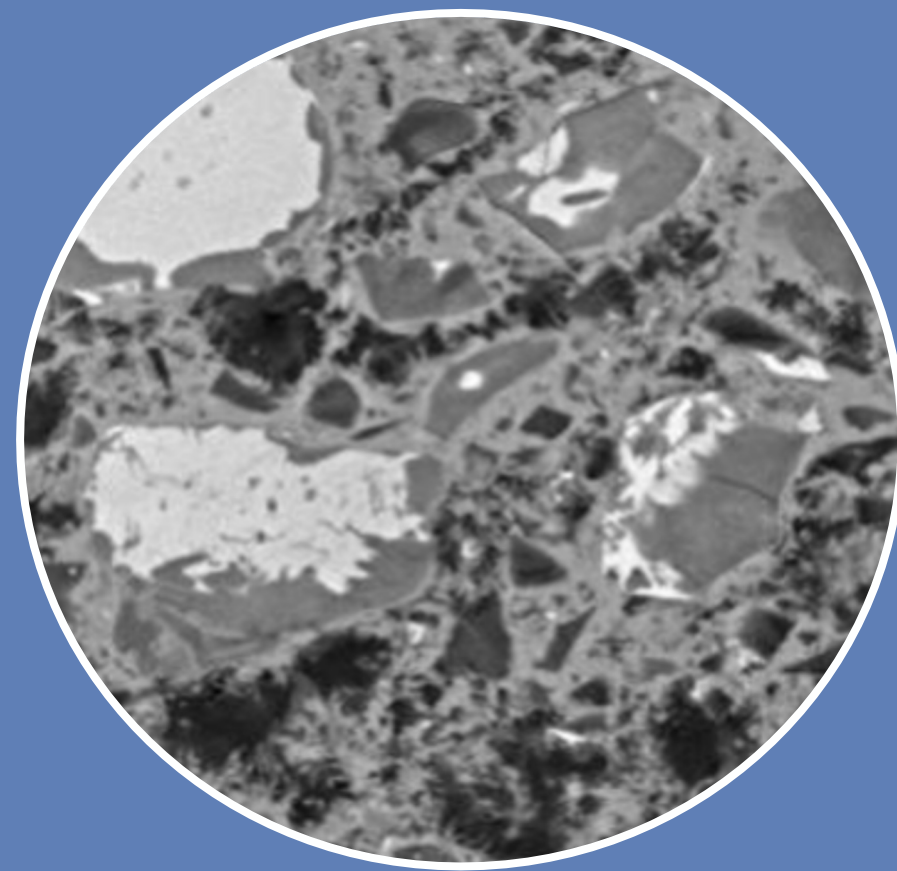
Transforming waste carbon and residues into new links  
in a circular value chain. That's more than sustainability.  
That's Circular Impact.



# Carbon8

## A Circular Impact Company

Carbon8 converts carbon and residues into sustainable value streams with its TRL 9 technology which permanently captures and utilises CO<sub>2</sub>



### Accelerated Carbonation Technology:

Patented process transforming industrial waste into products through permanent CO<sub>2</sub> capture



### Plug 'n Play solution:

Commercialised technology for heavy industry, deployed with first major customer in July 2020



### Sustainable landfilling alternative:

A cost-effective, circular solution to industrial waste





# Industry Landscape

Hard-to-abate Industries

Cement X



## OTHER INDUSTRIES:

- Waste to Energy
- Paper and Pulp
- Biomass
- Steel
- Contaminated soils
- Construction and demolition
- Oil and gas

# Traditional Value Chain

Carbon intensive practices, leading to high-embodied carbon products with single-life material management and the associated landfill cost.

Take-make-use-dispose system leads to **EMISSIONS, RESIDUAL WASTE** and their **COSTS**.

## Linear Value Chains

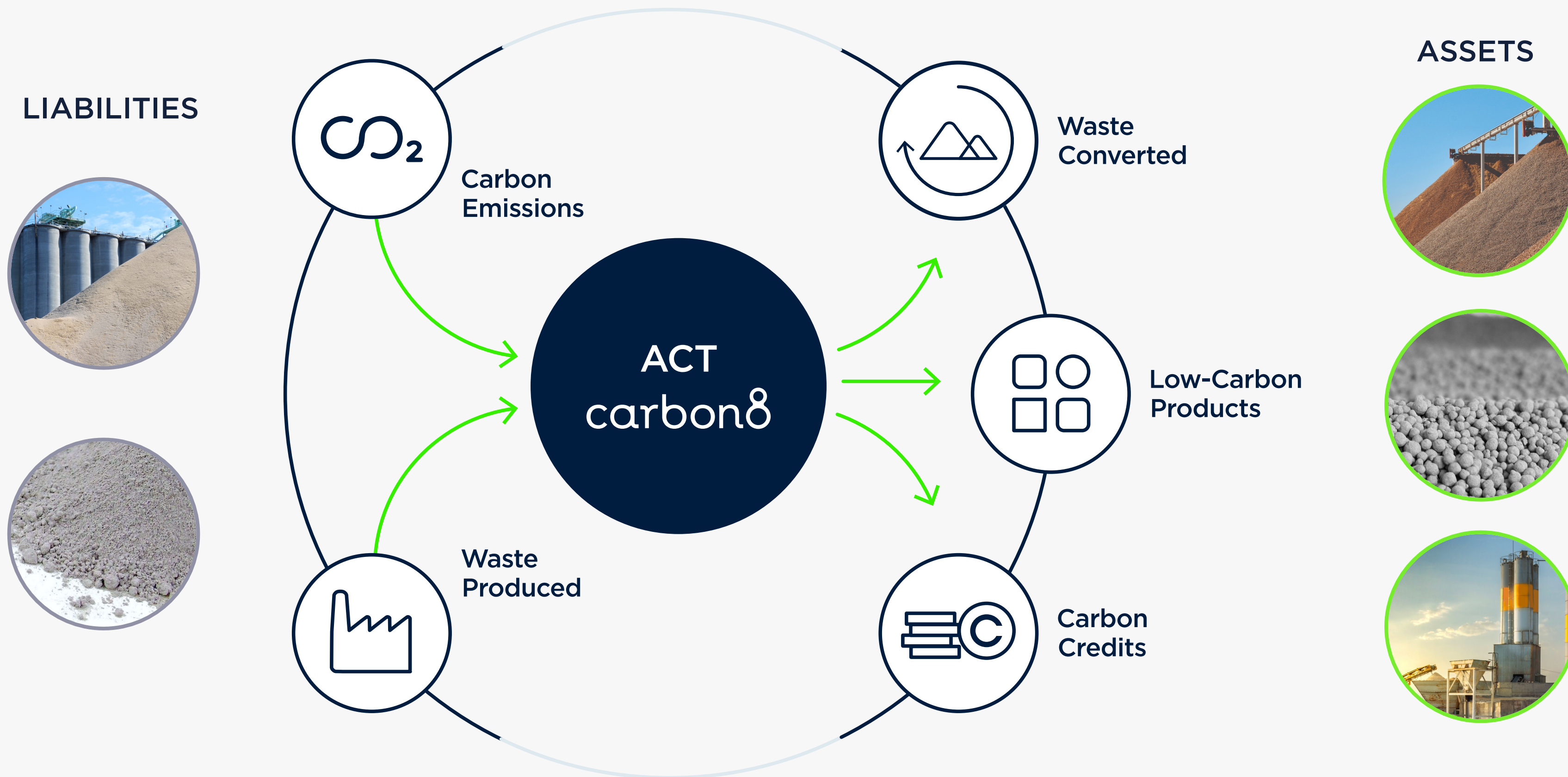




# Enabling Circularity

## Addressing the Problem

Enabling a closed-loop system; recycling waste streams through carbon sequestration





# Accelerated Carbonation Technology

## An Overview

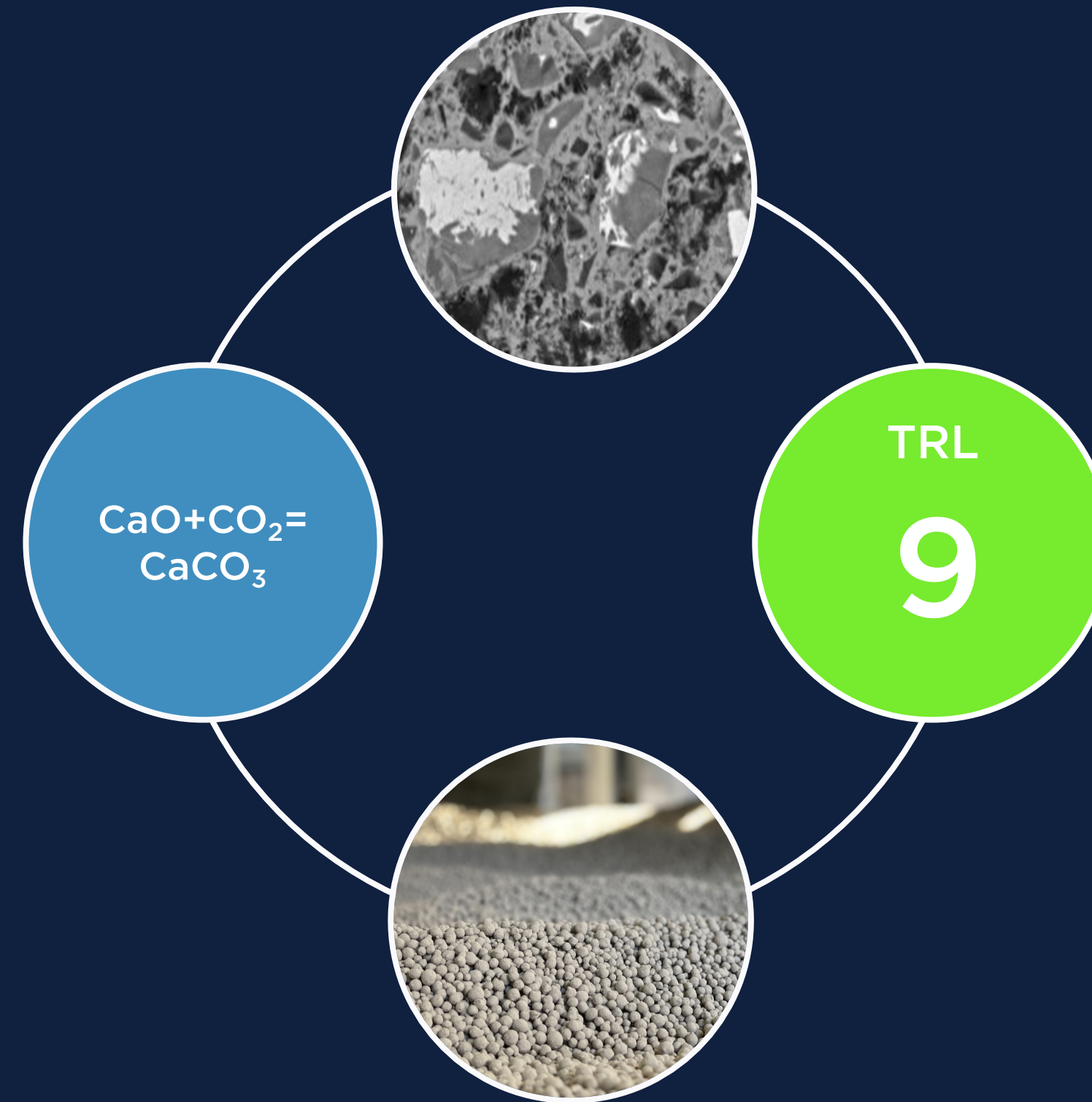
### CARBONATION & MINERALISATION

ACT is based on the natural process of mineralisation and carbonation

One of nature's ways of sequestering CO<sub>2</sub>

Industrial residues contain calcium and magnesium compounds

Tested +1000 samples and +120 mix designs developed



### ACT

Reaction takes 15 - 20 min. rather than years

Metals and contaminants are stabilized in process and pH is reduced

Permanent CO<sub>2</sub> capture, storage and utilisation

Exothermic 'carbon negative' process

### CircaBuild

Carbon-negative alternatives to virgin aggregate

Adaptable to client requirements

Applications include concrete blocks, ready-mix and green roofing substrate



# The CO<sub>2</sub>ntainer

## A Modular Solution to Industry Circularity

### Main Features



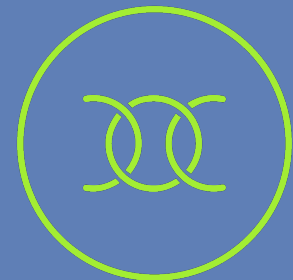
#### CO<sub>2</sub> CAPTURE

Directly capturing and permanently storing 1,500 - 4,000 tonnes CO<sub>2</sub> per annum



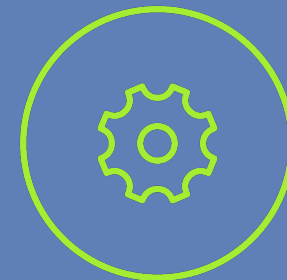
#### 12,000 TONNES

Industrial waste is upcycled per annum into new materials



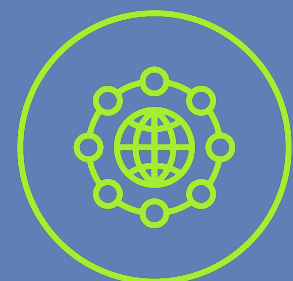
#### SEAMLESS INTEGRATION

Minimal interference with production



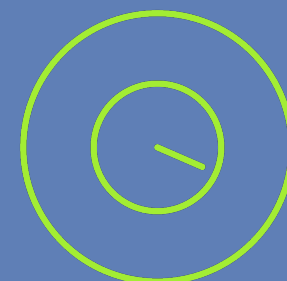
#### 100% AUTOMATION

Manual and automatic operation possibilities



#### CLOUD CONNECTED

Industry 4.0 capabilities



#### 20 MINUTES

Safety captures and permanently stores CO<sub>2</sub> within 20 minutes



The CO<sub>2</sub>ntainer at Vicat Group's cement plant in Montalieu, France



# Circa8 Product Range

Enabling Circularity

Transforming wastes into carbon negative aggregates through permanent carbon sequestration

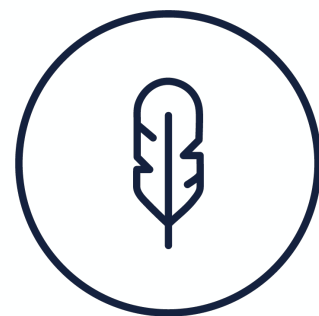
## CircaBuild

Applications:

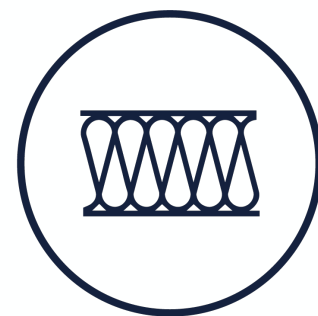
- Concrete blocks
- Ready-mix concrete
- Precast concrete
- Pipe bedding
- Road filler
- Green roofing substrate



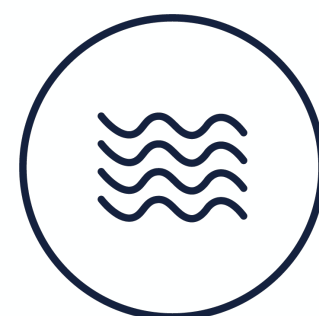
Carbon Negative



Lightweight



Insulating Properties



Hygric Properties



Adaptable to client needs





# The Customer Value Proposition

## Economic Carbon Capture and Circularity

A circular solution to industrial waste and CO<sub>2</sub> capture



### DIRECT COST SAVING

Divert residues from landfill with sustainable waste management and offset associated costs



### CARBON FOOTPRINT REDUCTION

Permanently capture and safely store CO<sub>2</sub> directly from the source



### NEW CIRCULAR MATERIALS

Enable circularity through implementing sustainable alternative building materials in production, or market them for a profit





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