

Walking the Tightrope:  
Architecture and Engineering;  
Academia and Innovation;



Architecture

Engineering



Research Review

# Rethinking Systems

# Curvecrete

Iconic. Elegant. Design Realised.



# Why we do what we do

80%

Global CO<sub>2</sub> emissions

40%

Australia's waste = Construction

**Curvecrete can eliminate 50% material mass with...**



# Curvecrete

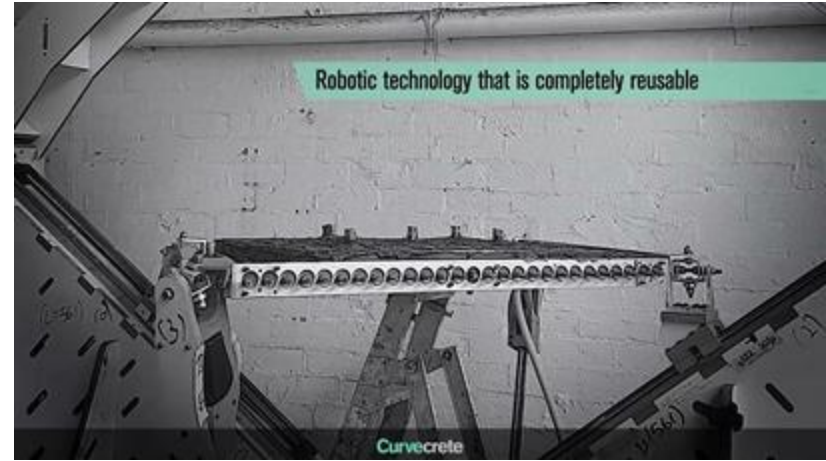
Iconic. Elegant. Design Realised.



Opera House, Sydney

## How we do it

**Now: Manufacture and sell curved concrete panels**

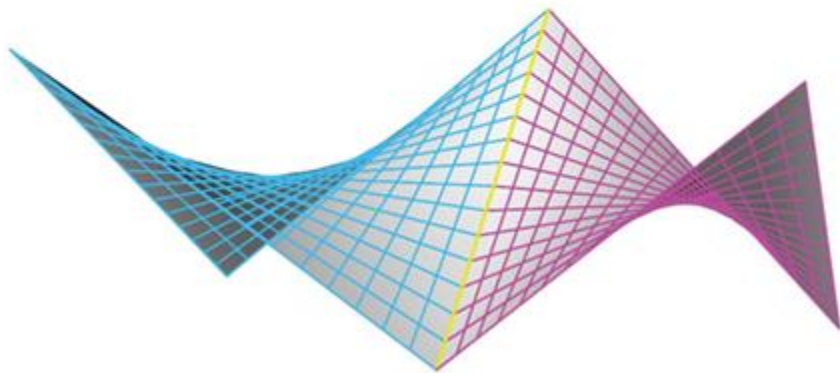
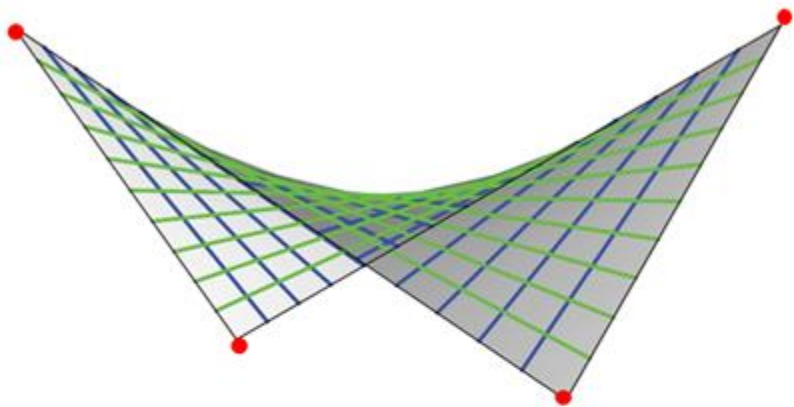


**Towards: Manufacturing and selling robotic systems**



# Ruled Surfaces

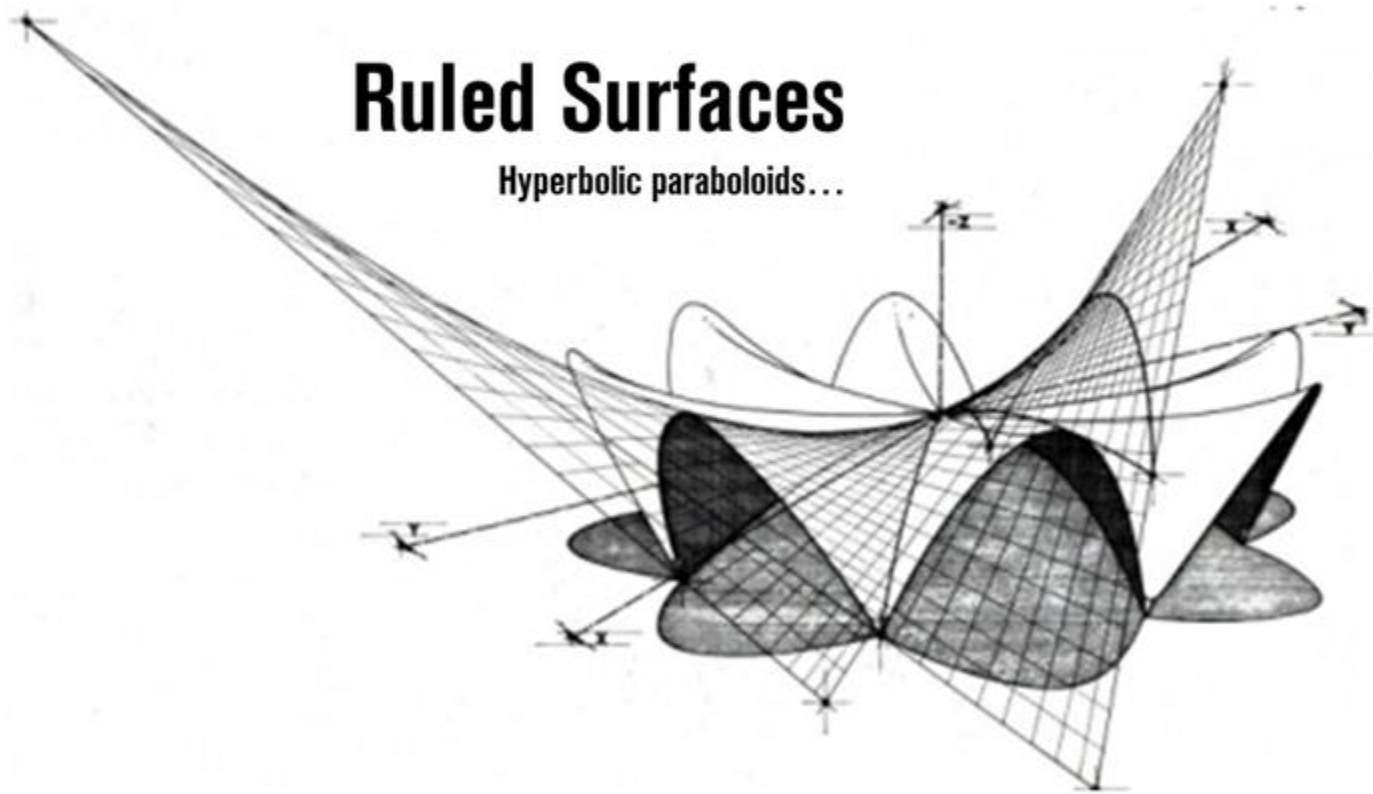
Hyperbolic paraboloids...





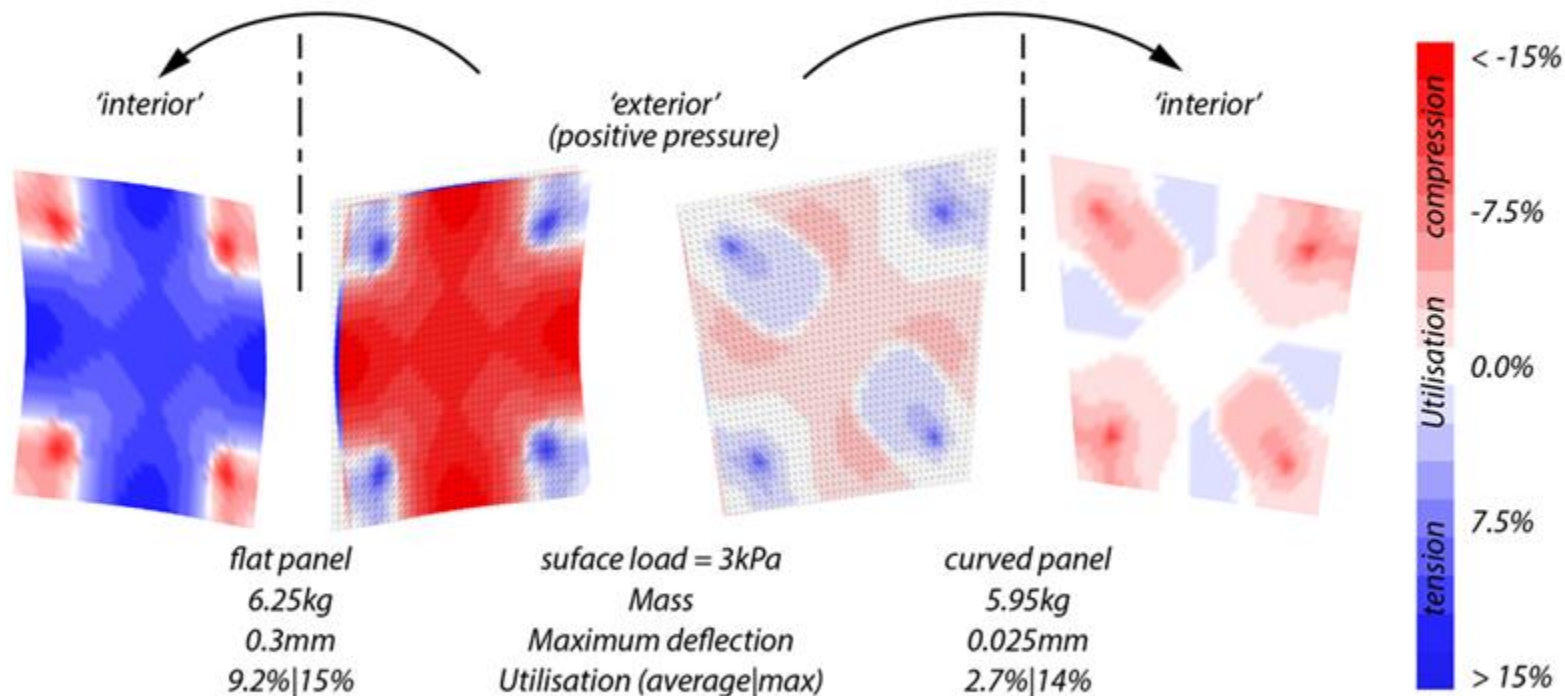
# Ruled Surfaces

Hyperbolic paraboloids...



Felix Candela  
Restaurant Los Manatales, Xochimilco, Mexico

# The Power of Curvature

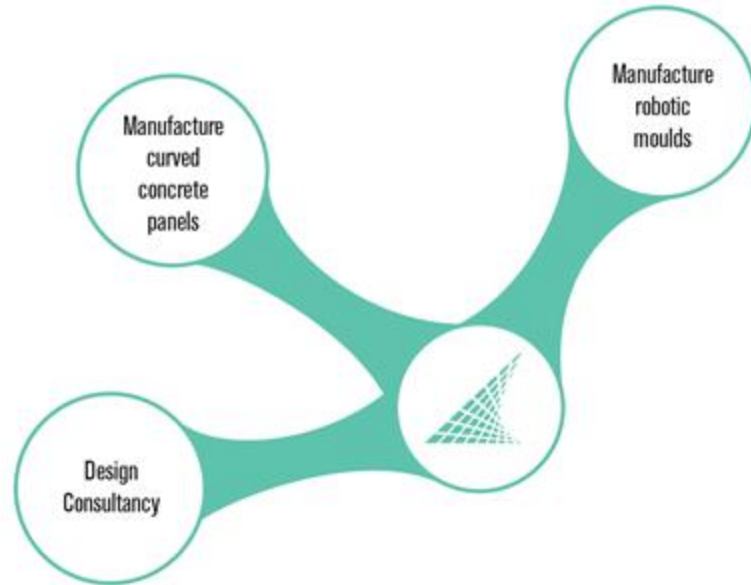


## Curvecrete mission

**Curvecrete's mission: accelerate the transition to a Low-Carbon, Zero-waste, Exciting future in Construction.**

Architects have always imagined beautifully curved architecture, but it was always considered incredibly expensive, complex and wasteful.

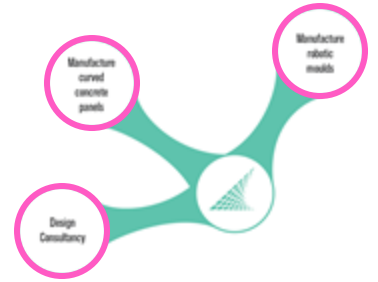
Curvecrete are an advanced manufacturer in the construction sector using robotic technology to produce beautifully curved architectural concrete panels more cost effectively, simpler, and with zero waste.



# Curvecrete

Iconic. Elegant. Design Realised.

# Curvcrete Network



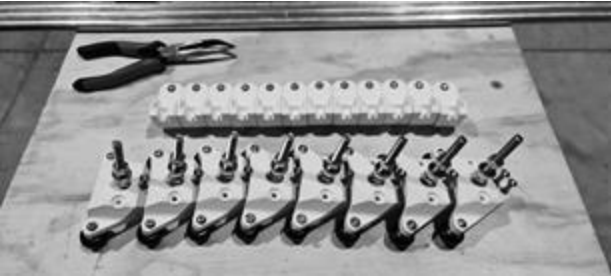
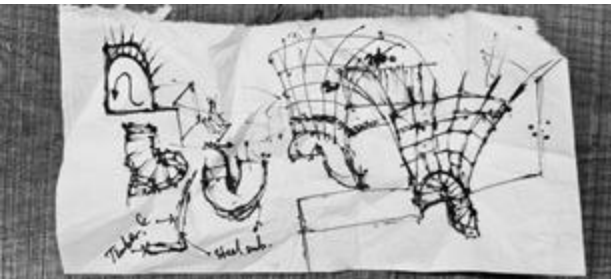
Proudly funded by the NSW Government



SUPPLY CHAIN SUSTAINABILITY



COLLABORATION FOR CHANGE



**Robots**

**+ Team**

**= Curves**

# Curvecrete Team

DM + CA + PM



Daniel  
CEO



Warren  
CFO



Rita  
Design



Alicia  
Design



Shравan  
Material



Arun  
Material



James  
Production



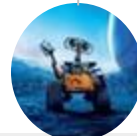
Paul  
Brand



Cameron  
Design



Luke  
Design



Robotics Champion



Harris  
Production



Production

## INVESTMENT & ADVISORY BOARD



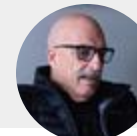
Brendon



Andrew



Navjot



Steve



Jacyl

# FIRST Completed project - 2022

**Flinders Spiral > ACG Milestone Project 1/2**  
Site: L14-Roof, 546 Flinders St, Melbourne  
Client: 546 Flinders St Body Corp.



## FIRST Completed project - 2022

### Flinders Spiral > ACG Milestone Project 1/2

Site: L14-Roof, 546 Flinders St, Melbourne

Client: 546 Flinders St Body Corp.





## FIRST Completed project - 2022

### Flinders Spiral > ACG Milestone Project 1/2

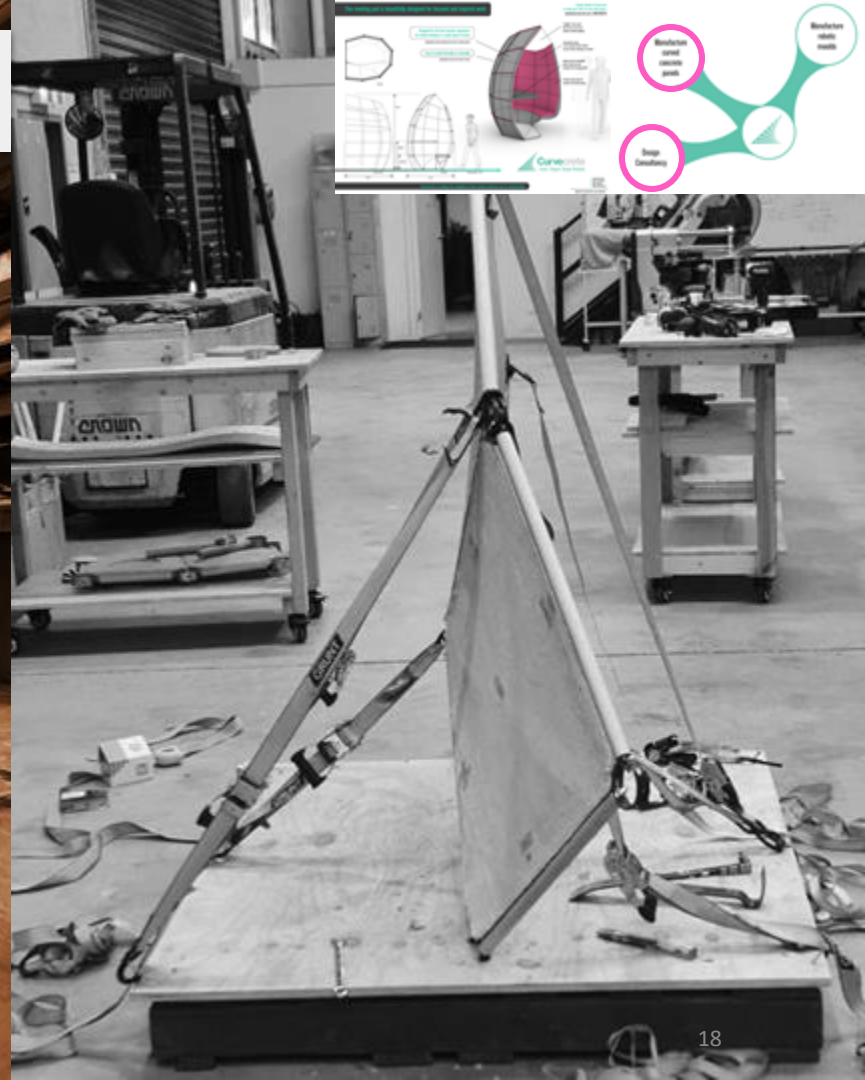
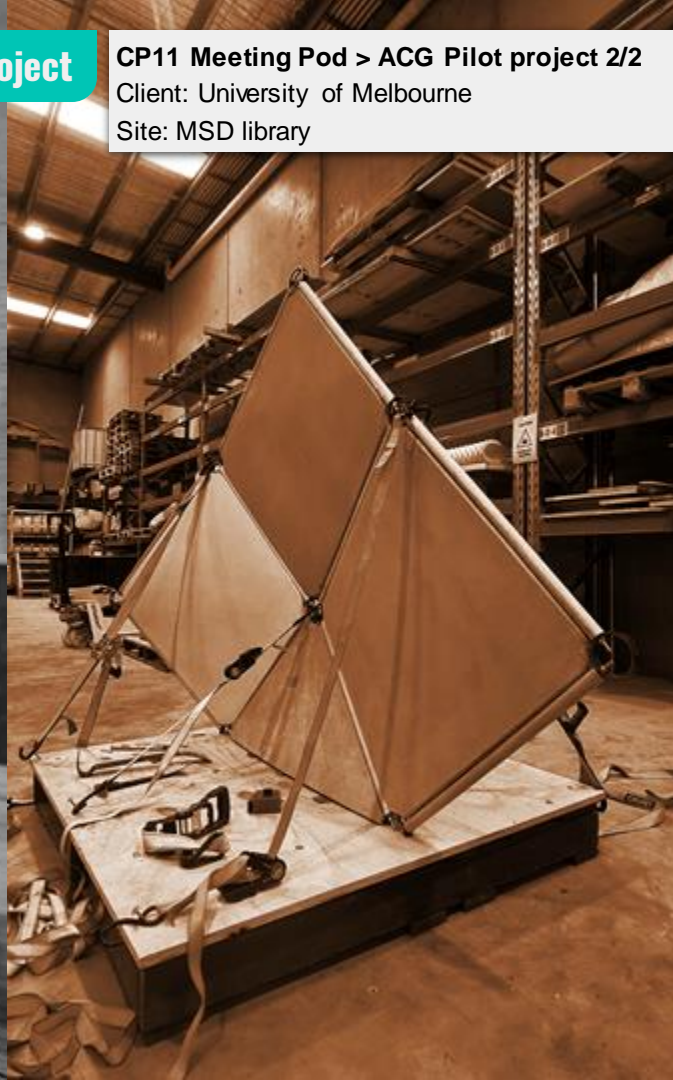
Site: L14-Roof, 546 Flinders St, Melbourne

Client: 546 Flinders St Body Corp.



## Second Completed project

CP11 Meeting Pod > ACG Pilot project 2/2  
Client: University of Melbourne  
Site: MSD library



## Second Completed project



## Second Completed project



## Achievement | Awards

**Design: We won a Gold Good Design Award 2022 for our curvy panels!**



REWARDING  
DESIGN  
EXCELLENCE

## Achievement | Awards

**Manufacturing: We won an Endeavour Awards, Sustainable solution of the year, 2022 for our curvy panels!**



 MANUFACTURERS' MONTHLY  
**Endeavour  
Awards 2022**

**ENVIRONMENTAL  
SOLUTION OF THE YEAR**

Awarded to  
**CURVECRETE  
CURVECRETE PANELS**

**Our CEO/Architectural Engineering Robotacist is an Engineers Australia of the Year nominee, 2023!**



For his persistence with Curvconcrete innovation ventures, technical development in robotics with a purpose, and progressing the construction industry towards a more collaborative industry especially with further implementation of integrated architectural engineering and construction management processes.



**Awarded**

**CP49 760 Toorak**

GRC panel supply (275sqm)

Architect: Achitecton

Builder: Sass Developments





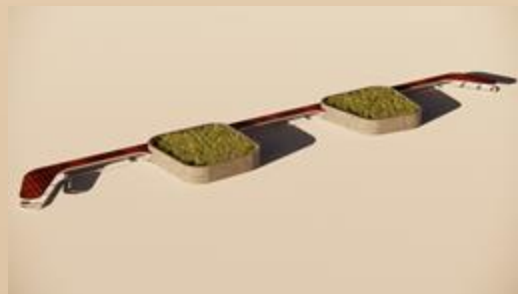
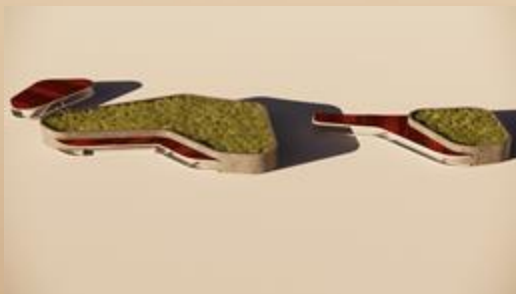
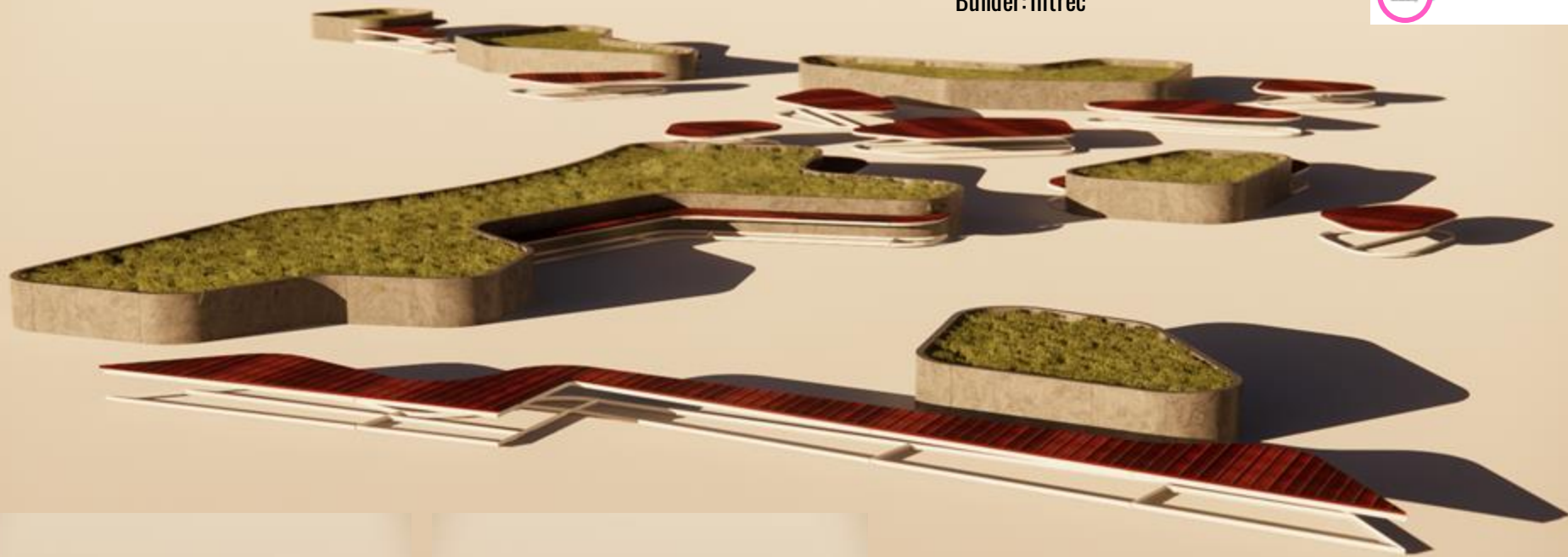
**Awarded**

## CP61 Austin Hospital

Geopolymer panel supply (147sqm)

Architect: LBA

Builder: Intrec



# Growth strategy

## INVESTMENT TO COMMERCIALY DEMONSTRATE ROBOTIC TECHNOLOGY (\$825k)

PRIVATE INVESTMENT  
+  
ACCELERATING COMMERCIALISATION GRANT (\$325,000)

## INVESTMENT FOR VOLUME PRODUCTION (\$3-5m)

PRIVATE INVESTMENT  
+  
STRATEGIC INVESTMENT

Split round:

**Series-Seed-Part 1-CN: \$500,000**

Series-Seed-Part 2: \$2,5m to \$4.5m

**WE ARE HERE!**

Past Capabilities (2022)

Past 12 months

Current Capabilities (2023)

Next 12 months

Future Capabilities (2024)

● Factory #1 - 50sqm

Production capability - 1sqm/day

● #1 Robots

1 panels / day

Max. panel size = 1sqm

● Factory #1 - 500sqm

Production capability - 10sqm/day

● #5 Robots

2 panels / day

Max. panel size = 1sqm

● Factory #1 - 500sqm

● Factory #2 - 2000sqm

Production capability - 200sqm/day

● #10 Robots

1 panel / day

Max. panel size = 20sqm

# How might we deliver on sustainable solutions with Curvecrete?

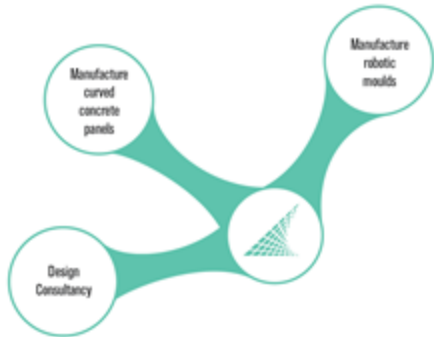
NOISE WALLS

EARTH RETAINING  
STRUCTURES



URBAN FURNITURE

FACADE SYSTEMS





Curvecrete